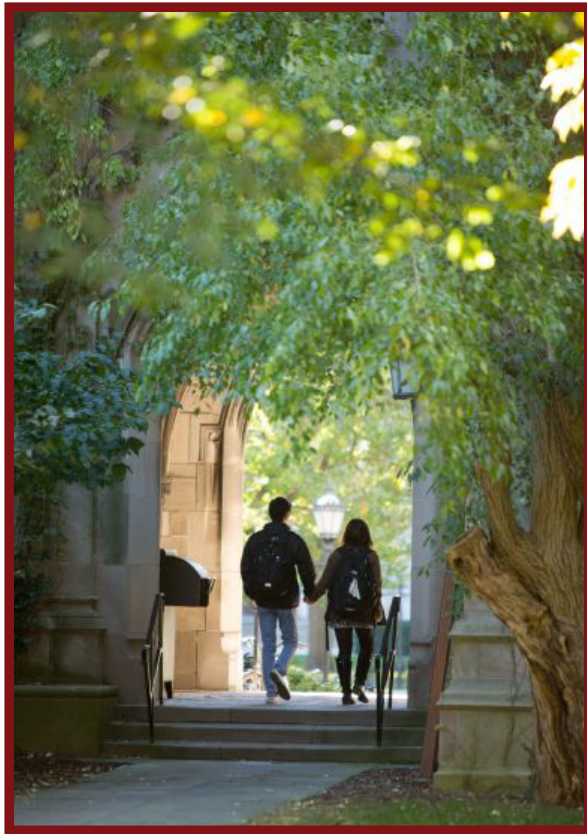


THE UNIVERSITY OF
CHICAGO



GRADUATE PROGRAMS IN THE DIVISIONS
ANNOUNCEMENTS 2019-2020

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- 338 Department of Near Eastern Languages and Civilizations
- 364 Department of Philosophy
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GRADUATE DIVISIONS 2019-2020

In keeping with its long-standing traditions and policies, the University of Chicago considers students, employees, applicants for admission or employment, and those seeking access to University programs on the basis of individual merit. The University does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, status as an individual with a disability, protected veteran status, genetic information, or other protected classes under the law (including Title IX of the Education Amendments of 1972). For additional information regarding the University of Chicago's Policy on Harassment, Discrimination, and Sexual Misconduct, please see: <http://harassmentpolicy.uchicago.edu/page/policy>.

The University official responsible for coordinating compliance with this Notice of Nondiscrimination is Bridget Collier, Associate Provost and Director of the Office for Equal Opportunity Programs. Ms. Collier also serves as the University's Title IX Coordinator, Affirmative Action Officer, and Section 504/ADA Coordinator. You may contact Ms. Collier by emailing bcollier@uchicago.edu, by calling 773.702.5671, or by writing to Bridget Collier, Office of the Provost, The University of Chicago, 5801 S. Ellis Ave., Suite 427, Chicago, IL 60637.

The content of these *Announcements* is accurate as of August 1, 2019. It is subject to change.

Photo by Tom Rossiter.



THE UNIVERSITY OF CHICAGO

Joseph Neubauer, Chairman of the Board of Trustees

Robert J. Zimmer, President of the University

Daniel Diermeier, Provost

Candidates for admission to graduate programs at the University of Chicago should address their inquiries, including requests for application materials, to the Office of the Dean of Students of the relevant graduate division or school to which application is being made. All of the information in this volume, as well as in the *Announcements* of each of the professional schools, is available online at <http://catalogs.uchicago.edu>. These documents are updated periodically. You will find admissions applications and more detailed information about a program that interests you on divisional websites. The statements contained in these *Announcements* are subject to change without notice.

Division of the Biological Sciences

924 East 57th Street

Chicago, IL 60637

(773) 834 2105

Email: bsdadmissions@uchicago.edu

<http://biosciences.uchicago.edu>

The Pritzker School of Medicine

(773) 702-1937

Fax (773) 834-5412

Email: pritzkeradmissions@bsd.uchicago.edu

<https://pritzker.uchicago.edu/page/admissions-process>

Division of the Humanities

1115 East 58th Street

Chicago, IL 60637

(773) 702-1552

Email: humanitiesadmissions@uchicago.edu

<http://humanities.uchicago.edu>

Division of the Physical Sciences

5640 South Ellis Avenue

Chicago, IL 60637

(773) 702-7950

Email: psd-admissions@lists.uchicago.edu

<http://physical-sciences.uchicago.edu>

Division of the Social Sciences

1130 East 59th Street, Foster 107

Chicago, IL 60637

(773) 702-8415

Email: ssd-admissions@uchicago.edu

<http://socialsciences.uchicago.edu>

The University of Chicago Booth School of Business

5807 S. Woodlawn Ave.

Chicago, IL 60637

(773) 702-7743

Email: admissions@chicagobooth.edu

<http://chicagobooth.edu>

Divinity School

1025 East 58th Street

Chicago, IL 60637

(773) 702-8249

Email: divinityadmissions@uchicago.edu

<http://divinity.uchicago.edu>

The University of Chicago Harris School of Public Policy

1155 East 60th Street

Chicago, IL 60637

(773) 702-8401

Email: harrisadmissions@uchicago.edu

<https://harris.uchicago.edu/>

The Institute for Molecular Engineering

5640 South Ellis Avenue, 213 ACC

Chicago, IL 60637

(773) 834-2057

Email: ime-admissions@uchicago.edu (//ime@uchicago.edu)

<http://ime.uchicago.edu/>

The University of Chicago Law School

1111 East 60th Street

Chicago, IL 60637

(773) 702-9484

Email: admissions@law.uchicago.edu

<http://www.law.uchicago.edu>

School of Social Service Administration

969 East 60th Street

Chicago, IL 60637

(773) 702-1250

Email: admissions@ssa.uchicago.edu

<http://www.ssa.uchicago.edu>

Graham School of Continuing Liberal and Professional Studies

1427 E. 60th Street, Press Building, Suite 2

Chicago, IL 60637

(773) 702-1722

Email: grahamschool@uchicago.edu

<http://grahamschool.uchicago.edu>

The University of Chicago central switchboard: (773) 702-1234



ACADEMIC CALENDAR

2019 Summer Quarter

Description	Date(s)
Quarter begins	Monday, June 24
Independence Day Holiday	Thursday, July 4
Quarter Ends	Saturday, August 31

2019 Autumn Quarter

Description	Date(s)
College Orientation Begins	Saturday, September 21
Quarter Begins	Tuesday, October 1
Thanksgiving	Thursday-Friday, November 28-29
College Reading Period	Thursday-Friday, December 5-6
Quarter Ends	Saturday, December 14

2020 Winter Quarter

Description	Date(s)
Quarter Begins	Monday, January 6
Martin Luther King, Jr. Day	Monday, January 20
College Break	Friday, February 14
College Reading Period	Thursday-Friday, March 12-13
Quarter Ends	Saturday, March 21

2020 Spring Quarter

Description	Date(s)
Quarter Begins	Monday, March 30
Memorial Day	Monday, May 25
College Reading Period	Thursday-Friday, June 4-5
Convocation	Saturday, June 13
Quarter Ends	Saturday, June 13

All dates are subject to change with no notice.

Up to date academic calendars can be found at <https://www.uchicago.edu/academics/calendar/>.



GENERAL INFORMATION

Announcements: Graduate Programs in the Divisions provides an overview of all graduate programs at the University of Chicago in the Divisions of the Biological Sciences, the Humanities, the Physical Sciences, the Social Sciences, the Institute for Molecular Engineering, and the William B. and Catherine V. Graham School of Continuing Liberal and Professional Studies. Professional schools in the University are closely integrated into the wider University; their programs are briefly described here. An individual issue of the *Announcements* is also available from each professional school which describes its programs and requirements in detail.

This volume is organized in a way that reflects the organization and functioning of the University. Each department, program, or degree granting committee in the divisions of the University conducts its own admissions and aid competition, and sets its own degree requirements within a framework that is set by the University and by each division. However, divisions, departments, and programs engage in a substantial number of cooperative efforts, as evidenced by the large number of interdepartmental and interdivisional programs, committees, centers, and research groups in the University. Therefore, this volume contains a section for each division, and a separate section for interdivisional programs, centers, committees, and other organizations in which students may participate and, in some cases, earn a degree. The introductory section, which you are now reading, contains information about the University that is relevant to all students and applicants. A final section contains information for those interested in one of the professional schools.

Readers of these *Announcements* are advised that the policies and degree requirements of academic units that are set forth herein may change at any time without prior notice, or may represent a summary of more detailed policies and requirements. Students and applicants who wish the most up to date information regarding courses and degree requirements should review the division, department, or program website or contact the department, program, or the dean of students in the relevant division. The provisions of these *Announcements* are for informational purposes only and are not intended to create a contract or agreement between the University and any applicant or student.

HISTORY AND PURPOSE

The University of Chicago is a private, nondenominational, coeducational institution of higher learning and research. It is located in the community of Hyde Park-South Kenwood, a culturally rich and ethnically diverse neighborhood seven miles south of downtown Chicago. Hyde Park-South Kenwood encompass one and one quarter square miles of commercial and residential districts that extend from 47th Street on the north to 61st Street on the south and from Cottage Grove Avenue eastward to the shoreline of Lake Michigan. The neighborhood is a stimulating blend of the urban and small town.

The University of Chicago includes the undergraduate College; four graduate Divisions (of the Biological Sciences, the Humanities, the Physical Sciences, and the Social Sciences); six graduate professional schools (the University of Chicago Booth School of Business, the Divinity School, the Law School, the Pritzker School of Medicine, the Irving B. Harris Graduate School of Public Policy Studies, and the School of Social Service Administration); the Institute for Molecular Engineering; the libraries, laboratories, museums, clinics, and institutes; the William B. and Catherine V. Graham School of Continuing Liberal and Professional Studies; and the University of Chicago Press.

The University was founded by John D. Rockefeller. William Rainey Harper was its first president. Classes began on October 1, 1892, with an enrollment of 594 students and a faculty of 103, including eight former college presidents. In 1930 the undergraduate College and the graduate divisions were created by President Robert Maynard Hutchins to foster interdisciplinary study and encourage interdepartmental cooperation. Such cross fertilization continues to characterize the University.

Since its founding, the University has earned a reputation for recruiting a faculty committed to scholarly distinction and intellectual innovation. The faculty is represented in more than seventy honorary and professional societies, including the National Academy of Sciences, the American Academy of Arts and Sciences, the American Philosophical Society, and the National Academy of Education. Eighty-seven members of the faculty, former students, or individuals who did research at the University have been named Nobel laureates, and seven are currently members of the faculty. Notable is the faculty's tradition of developing cross disciplinary fields of study, such as Law and Economics, Conceptual and Historical Studies of Science, Ecology and Evolution, and the Institute for Mind and Biology. A leader in higher education, the University of Chicago has had a major impact on the nation's colleges and universities.

The graduate programs in the University aim to send out graduates who have begun to develop mastery of the content and methods of their chosen field of study and who are equipped to continue to learn and to produce new knowledge. To that end, the University of Chicago offers an unusually free environment for graduate study, one that encourages both faculty and young scholars and researchers to develop their interests and talents by working with colleagues throughout the University.

In addition to its Ph.D. programs and the master's degrees offered through them, the University offers a number of special degree programs for students who have completed a bachelor's degree or the equivalent.

These free standing master's degree programs, which may be departmental and multidisciplinary, or offered in conjunction with a master's degree in a professional school, are carefully tailored for students whose goal is a master's degree. Some students who successfully complete these programs subsequently decide to apply to doctoral programs at the University or elsewhere. However, these special degree programs are conceived as self-contained. These programs are listed below:

Interdisciplinary programs

- East Asian Studies (as M.B.A./A.M. only)
- East European and Russian/Eurasian Studies (as M.B.A./A.M. only)
- Latin American and Caribbean Studies
- Middle Eastern Studies
- South Asian Studies (as M.B.A./A.M. only)

Division of the Biological Sciences

- Public Health Sciences

Division of the Humanities

- Master of Arts in Digital Studies of Language, Culture, and History
- Master of Arts Program in the Humanities
- Visual Arts (M.F.A.)

Division of the Physical Sciences

- Master of Science in Computational and Applied Mathematics
- Master of Science Program in Computer Science
- Master of Science Program in Financial Mathematics
- Master of Science Program in the Physical Sciences

Division of the Social Sciences

- International Relations
- Master of Arts Program in Computational Social Science
- Master of Arts Program in the Social Sciences

APPLICATION TO THE PROGRAMS IN THE DIVISIONS AND THE INSTITUTE FOR MOLECULAR ENGINEERING

Applicants for admission to graduate programs in the divisions at the University of Chicago should address their inquiries to the dean of students of the graduate division or to the program to which application is being made, or to the Office of Graduate Admissions. Applications are submitted electronically; applicants should consult the appropriate divisional or program website for information and instructions, or visit <http://grad.uchicago.edu/admissions>.

DIVISION OF THE BIOLOGICAL SCIENCES

Associate Dean
BSD Office of Graduate Affairs and Postdoctoral Affairs
924 East 57th Street, Suite 104
Chicago, IL 60637 5416
(773) 834-2105
bsdadmissions@uchicago.edu
<http://biosciences.uchicago.edu>

DIVISION OF THE HUMANITIES

Dean of Students
Division of the Humanities
Walker Museum 111
1115 East 58th Street
Chicago, IL 60637
(773) 702-1552
humanitiesadmissions@uchicago.edu ([//humanitiesadmissions@uchicago.edu](http://humanitiesadmissions@uchicago.edu))
<http://humanities.uchicago.edu>

DIVISION OF THE PHYSICAL SCIENCES

Applicants should consult the website of the program to which they intend to apply for up to date admission materials.
<http://physical-sciences.uchicago.edu>

DIVISION OF THE SOCIAL SCIENCES

Dean of Students
Division of the Social Sciences
Foster Hall 107
1130 East 59th Street
Chicago, IL 60637
(773) 702-8415
ssd-admissions@uchicago.edu (//ssd-admissions@uchicago.edu)
<http://socialsciences.uchicago.edu>

INSTITUTE FOR MOLECULAR ENGINEERING

Eckhardt Research Center 207
5640 South Ellis Avenue
Chicago, IL 60637
(773) 834-5549
[ime@uchicago.edu](mailto://ime@uchicago.edu) (//ime@uchicago.edu)
<http://ime.uchicago.edu/>

An applicant who holds a degree from an accredited institution is considered for admission on the basis of (1) an undergraduate record, (2) a well organized plan for graduate study, (3) Graduate Record Examination (GRE) and English proficiency scores, where required, and (4) recommendations from three faculty members acquainted with the character, ability, potential, qualifications, and motivation of the applicant. Persons who have been away from school for several years may submit recommendations from employers, professional associates, or supervisors.

Certain departments of the University require additional credentials; details concerning these additional credentials are available as part of the online application, or will be sent to candidates for admission after they have submitted their applications.

Unofficial transcripts of all academic work and contact information for your recommenders must be submitted with the application. More detailed instructions are included with each division's application. Every applicant is asked to study the general statement of the division he or she plans to enter and the specific requirements of the proposed field of graduate study.

International Students

Students from abroad must submit, in addition to the usual credentials, proof of proficiency in English and, if admitted, documentation of all sources of financial support for any expenses not covered by any funding provided by the University. Only those students from abroad who hold the equivalent of a U.S. bachelor's degree will be considered for admission.

APPLICATION DEADLINES

Applications for admission and for aid must be submitted by the appropriate deadline. Application deadlines can be found on the online applications and may be as early as December 1 for the following autumn. Incomplete applications will be evaluated on the basis of materials received at the time of the regular review process.

PART-TIME STUDY

Part-time study is more feasible in some fields than in others. The divisional dean of students can answer questions about opportunities for part time study in particular departments. Student loans are available to students enrolled at least half time. Applicants for part time study are generally not eligible for scholarship assistance since priority in assigning limited University aid funds must necessarily go to full time students.

Applicants who wish to begin their studies on a part-time basis should contact the divisional dean of students or admissions office.

DECISIONS

Most admission and aid decisions for the autumn quarter are sent by mid-March.

In agreement with the Resolution of the Council of Graduate Schools in the United States, a student who agrees to accept a scholarship, fellowship, traineeship, or graduate assistantship at the University of Chicago or at any of the signatory schools prior to **April 15** and subsequently desires to change plans must resign the financial aid offer and/or acceptance of admission at any time through **April 15** in order to accept another scholarship, fellowship, traineeship, or graduate assistantship, regardless of any understanding reached before then. This protects the student's right to select the offer that is most attractive.

STUDENTS WITH DISABILITIES

As soon as possible after having been admitted, students should contact their divisional dean of students and the Student Disability Services (<http://disabilities.uchicago.edu>) office.

CONDITIONS OF ACCEPTANCE

Acceptance of a scholarship or fellowship is conditional on the student's agreement to devote full time to graduate study toward an advanced degree at the University of Chicago. In cases of students holding larger awards, special permission for remunerative work must be secured in advance.

APPLICATION TO PROFESSIONAL SCHOOLS

Students interested in the University's professional schools (the University of Chicago Booth School of Business, the Divinity School, the Law School, the Pritzker School of Medicine, the Harris School of Public Policy Studies, or the School of Social Service Administration) should contact the admissions office of each school. Students interested in general courses, courses as a student-at-large, returning scholar, the Master of Science in Threat and Response Management, or the Master of Science in Analytics program should contact the William B. and Catherine V. Graham School of Continuing Liberal and Professional Studies. Students interested in the Master of Arts in Teaching from the Urban Teacher Education Program (UTEP) should contact the UTEP staff.

BEING A STUDENT AT THE UNIVERSITY OF CHICAGO

From healthcare services to cultural programming, the University of Chicago is dedicated to supporting and enriching the life of its graduate students. To that end, there are many offices and programs that exist to create a healthy, safe, and productive environment for students both inside and outside the classroom. You can find a list of resources available to graduate students at <http://grad.uchicago.edu/>. Additional information is also available from the Office of Campus and Student Life (<https://csl.uchicago.edu>), 5801 S. Ellis Ave., Chicago, IL 60637.

Chicago is a vibrant and exciting city that you will want to explore. As a world class city, Chicago also presents all of the typical challenges of a complex modern urban society. While the University takes measures to ensure a safe campus environment, there are also many things you can do to ensure your own safety. The University's campus safety report is designed to help equip you to navigate the city successfully and offers information about the University offices that provide services related to security and safety. The report is available online at securityreport.uchicago.edu. Hard copies of the report are available upon request from the Office of Campus and Student Life (<https://csl.uchicago.edu>), 5801 S. Ellis Ave., Chicago, IL 60637 (or via phone to (773) 702-7770).

As a member of the University of Chicago community, there are University policies and regulations you are responsible for knowing. These policies protect your rights and outline your responsibilities as students. For instance, the Graduate Student Parents Policy grants academic accommodations to graduate students who are also new parents, and Registration for Students in Ph.D. programs defines the status of doctoral students as they progress through their studies. A complete statement of policies and regulations can be found at <http://studentmanual.uchicago.edu/>



INTERDIVISIONAL PROGRAMS

The University of Chicago has a distinctive and distinguished tradition of interdisciplinary research and teaching. Faculty and students with interests that span departmental lines are readily able to find colleagues throughout the University. The many interdivisional programs that flourish at the University vary widely in purpose and organization. Some are formal, degree granting committees, some are area studies centers, some are comparatively informal groupings of faculty and advanced students who share an interest in some method, approach, or subject area. The major interdivisional programs are shown below.

- The Council on Advanced Studies
- Institute for Biophysical Dynamics
- Center for the Study of Race, Politics, and Culture
- Center for East Asian Studies
- Center for East European and Russian/Eurasian Studies
- The Enrico Fermi Institute
- The Morris Fishbein Center for the History of Science and Medicine
- The James Franck Institute
- Center for the Study of Gender and Sexuality
- Pozen Family Center for Human Rights
- Center for International Studies
- Center for Jewish Studies
- Center for Latin American Studies
- Center for Middle Eastern Studies
- NORC
- Committee on Southern Asian Studies/South Asia Language & Area Center
- Stevanovich Institute on the Formation of Knowledge



THE COUNCIL ON ADVANCED STUDIES

THE COUNCIL ON ADVANCED STUDIES

Willemien Otten, Chair

Members

- Persis Berlekamp
- Mark Bradley
- Kyeong-Hee Choi
- Anton Ford
- David Gallo
- Anastasia Giannakidou
- Timothy Harrison
- John Levi Martin
- Jennifer Pitts
- Eric Slauter
- Amy Dru Stanley
- Alice Yao

Ex Officio Members

- David Nirenberg, *Dean of the Divinity School*
- Anne Robertson, *Dean of the Humanities Division*
- Amanda Woodward, *Dean of the Division of the Social Sciences Division*

THE COUNCIL ON ADVANCED STUDIES

cas@uchicago.edu

<http://cas.uchicago.edu>

In 1982, the University of Chicago pioneered a new dimension in graduate education—interdisciplinary workshops that bring together students and faculty in the Divinity School, Humanities Division, and the Social Sciences Division for ongoing and collaborative exchange of ideas around particular areas of interest. By providing graduate students with a forum for presenting their research and writing, the workshops, which have been widely replicated at other universities, have become an important part of the UChicago graduate education experience. Workshops facilitate the dissertation-writing process and create opportunities for professionalization as they encourage students to engage rigorously with their own and their fellow students' work through discussion, debate, evaluation, and critical feedback.

In addition to the academic importance of workshops, participation in a workshop series, which can include scheduled meetings as well as dinners and other social gatherings, serves well to combat intellectual isolation. The workshop setting provides an informal forum for students to develop close and supportive ties with their fellow students as well as faculty mentors and even guest faculty. More advanced graduate students often become mentors and role models to other students as they experience together the different stages of their transition from consumers to creators of knowledge. The workshops represent dozens of vibrant micro-communities of scholars where the participants engage in lively conversation and receive valuable insight and encouragement.



INSTITUTE FOR BIOPHYSICAL DYNAMICS

Director

- Michael Rust, Molecular Genetics and Cell Biology

Professors

- Francisco Bezanilla, Biochemistry and Molecular Biology
- Sean Crosson, Biochemistry and Molecular Biology
- Aaron Dinner, Chemistry
- Gregory Engel, Chemistry
- Margaret Gardel, Physics
- Benjamin Glick, Molecular Genetics and Cell Biology
- Chuan He, Chemistry
- Stephen Kent, Biochemistry and Molecular Biology
- Anthony A. Kossiakoff, Biochemistry and Molecular Biology
- Ka Yee C. Lee, Chemistry
- Keith Moffat, Biochemistry and Molecular Biology
- Tao Pan, Biochemistry and Molecular Biology
- Eduardo Perozo, Biochemistry and Molecular Biology
- Benoit Roux, Biochemistry and Molecular Biology
- Norbert Scherer, Chemistry
- Tobin Sosnick, Biochemistry and Molecular Biology
- Andrei Tokmakoff, Chemistry
- Gregory Voth, Chemistry

Associate Professors

- Edwin Munro, Molecular Genetics and Cell Biology
- Ronald Rock, Biochemistry and Molecular Biology
- Michael Rust, Molecular Genetics and Cell Biology
- Bozhi Tian, Chemistry

The University of Chicago established the Institute for Biophysical Dynamics (<http://ibd.uchicago.edu>) to meet the challenges of achieving a molecular-level understanding of the structure, diversity and function of biological entities. The Institute represents a new approach to scientific research at the interface between biology and the physical sciences, bringing together experimentalists, theoreticians, and computational scientists to forge a scientific culture of fluid exchange of ideas and collaboration across disciplines and among laboratories.

In addition, the Institute has established programs to involve undergraduate, graduate, and postdoctoral students in this new cross-disciplinary approach to science. Notably, the Graduate Program in Biophysical Sciences (<http://biophysics.uchicago.edu>) is designed to immerse graduate students in this culture of interdisciplinary research. Work by Institute faculty and researchers in their laboratories provides insights profoundly influencing endeavors as diverse as molecular-based computing and the treatment of illness at the bedside.

Institute for Biophysical Dynamics
Gordon Center for Integrated Science, W101
929 East 57th Street, Chicago, IL 60637



THE CENTER FOR THE STUDY OF RACE, POLITICS, AND CULTURE

DIRECTORS

Salikoko S. Mufwene, Interim Faculty Director

Tracye A. Matthews, Executive Director

FACULTY

- Daniel Abede - Law School
- Anjali Adukia- Public Policy
- Jessica Swanston Baker- Music
- Kathleen Belew- History
- Lauren Berlant- English
- Philip Bohlman- Music and the Humanities in the College
- Dain Borges- History
- Larissa Brewer-Garcia- Romance Languages & Literatures
- Matthew Briones- American History and the College
- P. Sean Brotherton- Anthropology
- Chad Broughton- Public Policy & Chicago Studies Program
- Adrienne Brown- English
- Kerwin Charles- Harris School of Public Policy
- Yoon Sun Choi- School of Social Service Administration
- Julie Chu- Anthropology
- Cathy Cohen- Political Science
- Jennifer Cole- Human Development
- Herschella Conyers- Law School
- Jane Dailey- American History
- Shannon Dawdy- Anthropology
- Michael Dawson- Political Science
- Daniel Desormeaux- French Literature
- Justin Driver- Law School
- Darby English- Art History
- Matthew Epperson - School of Social Service Administration
- Curtis Evans- Divinity
- Eve Ewing - School of Social Service Administration
- Leah Feldman - Comparative Literature
- Allyson Nadia Field- Cinema and Media Studies
- Brodwyn Fischer- History
- Raymond Fogelson- Anthropology
- Anton Ford- Philosophy
- Craig Futterman- Law School
- Rachel Galvin- English
- Angela Garcia- School of Social Service Administration
- Marco Garrido- Sociology
- Theaster Gates- Visual Arts
- Adom Getachew- Political Science
- Melissa Gilliam- Medicine; Vice Provost for Academic Leadership, Advancement, and Diversity
- Adam Green- History
- Yanilda María González- School of Social Service Administration
- Ramón Gutiérrez- History
- Angie Heo- Divinity School
- Kimberly Kay Hoang- Sociology
- Thomas Holt- History

- Dwight Hopkins– Theology in the Divinity School
- Travis Jackson– Music and the Humanities
- Waldo E. Johnson, Jr.– School of Social Service Administration
- Arthur Damon Jones– Harris School Public Policy
- Micere Keels– Comparative Human Development
- John Kelly– Anthropology
- Karen Kim–Medicine
- Emilio Kouri- History
- Loren Kruger– Comparative Literature and English
- Jennifer Kubota– Psychology
- Jonathan Levy- History
- Agnes Lugo-Ortiz– Romance Languages & Literatures
- Omar M. McRoberts– Sociology
- Doriane Miller– Medicine
- Reuben Jonathan Miller– School of Social Service Administration
- Salikoko Mufwene– Linguistics
- Eric Oliver– Political Science
- Olufunmilayo Olopade– Medicine
- Emily L. Osborn– History
- Stephan D. Palmié– Anthropology
- Monica Peek– Biological Sciences Division
- Srikanth"Chicu" Reddy– English
- François G. Richard– Anthropology
- Shantá Robinson– School of Social Service Administration
- Selwyn O. Rogers- Medicine
- Danielle Marion Roper- Romance Languages and Literature
- Julie Saville- History
- Gina Miranda Samuels– School of Social Service Administration
- Margaret Beale Spencer– Comparative Human Development
- Jacqueline Stewart- Cinema and Media Studies
- Christopher Taylor– English
- Vu Tran– Creative Writing
- Robert Vargas- Sociology
- Monica Vela– Medicine
- Dexter Voisin– School of Social Service Administration
- Kenneth Warren– English
- Mareike Winchell- Anthropology
- Miwa Yasui– School of Social Service Administration
- Marci Ybarra- School of Social Service Administration

FUNDING AND OPPORTUNITIES

The CSRPC has many resources for masters and doctoral students who work on topics around race and ethnicity. The Center offers a CSRPC Dissertation Fellowship, currently providing one or two ABD students a year with a stipend of \$23,000, some research funding, and an office at the Center. The CSRPC Residential Fellowship provides office space and research funding. Jointly with the Center for The Study of Gender and Sexuality, the Center offers a dissertation fellowship (also with a stipend, research funding, and office space) for a student working on an intersectional topic. Finally, the CSRPC gives a total of at least \$12,000 per year in research grants to students working on relevant topics.

Many teaching opportunities can be found at CSRPC as well. Several teaching internships and lectureships for the civilization sequence "Colonizations" are available each year, and the Center offers six stand alone courses from among those proposed by advanced graduate students. The Center sponsors a Council on Advanced Studies graduate workshop, the Reproduction of Race and Racial Ideologies Workshop.

For additional information about the Center for the Study of Race, Politics, and Culture, please see csrpc.uchicago.edu

COMPARATIVE RACE AND ETHNIC STUDIES COURSES

CRES 30001. Topics in African American History. 100 Units.

This course is designed to explore in-depth selected topics in African American history and historiography. The specific focus this term will be "race and twentieth-century social science." Readings and discussion will explore the history of the relation between social-science theory and racial thought and practice from the race science of the late-nineteenth century through Franz Boas's cultural relativism to mid-twentieth century notions of a so-called culture of poverty. Our attention will focus on the real-world, especially public policy, implications of social-scientific thought. In addition to active participation in class discussions each student will write a final paper on a selected topic.

Equivalent Course(s): HIST 40001

CRES 30173. Inequality in American Society. 100 Units.

This course is intended as a complement to SOCI 20103 for first- and second-year students who are majoring in sociology, but is open to other students who have had little exposure to current research in inequality. We cover the basic approaches sociologists have employed to understand the causes and consequences of inequality in the United States, with a focus on class, race, gender, and neighborhood. We begin by briefly discussing the main theoretical perspectives on inequality, which were born of nineteenth century efforts by sociologists to understand modernization in Europe. Then, turning to contemporary American society, we examine whether different forms of inequality are persisting, increasing, or decreasing and why. Topics include culture, skills, discrimination, preferences, the family, and institutional processes, addressing both the logic behind existing theories and the evidence (or lack thereof) in support of them.

Instructor(s): M. Small Terms Offered: Spring

Equivalent Course(s): SOCI 30173, SOCI 20173, CRES 20173

CRES 30203. Colloquium: Colonial African History. 100 Units.

In the late nineteenth century, European nations embarked on an ambitious effort to conquer and occupy Africa. This course considers the conditions that enabled the European "scramble for Africa" and the long-lasting consequences of that project. We will use primary sources, secondary texts, fiction, and films to explore the meanings and manifestations of the European occupation for African peoples. Specific themes to be investigated include colonial institutions and systems of rule; social and political effects of colonialism; colonial religious movements; resistance and rebellion; nationalism and independence. We will draw case studies from French West Africa, Kenya, Nigeria, Sierra Leone, and South Africa.

Instructor(s): E. Osborn Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor.

Equivalent Course(s): HIST 40203

CRES 31082. African-American Documentary. 100 Units.

Though a "documentary impulse" can be traced in Black cinema from actualities of Black soldiers in the 1910s to the social realism of contemporary fiction films, documentary is a distinct form of persuasive media making that relies on evidence and invites performances of expertise and authenticity. Documentary conventions and production contexts have emphasized giving voice to marginalized subjects, allowing little space for Black people to craft their own systems representation, distribution and exhibition. Watching films as varied as *The Negro Soldier* (1944), *Still a Brother: Inside the Negro Middle Class* (1968), *Eyes on the Prize* (1987-1990), *Four Little Girls* (1997) and *13th* (2016), we will consider how documentary film form and culture have been used, critiqued and transformed by Black artists, activists and intellectuals seeking to document Black lives, investigate Black subjectivities, and affect social change. We will look at works and careers of prolific documentarians (William Greaves, Madeline Anderson, St. Clair Bourne, Henry Hampton, Marlon Riggs, Shola Lynch), filmmakers who move between fiction and documentary (Spike Lee, Charles Burnett, Yvonne Welbon, Ava DuVernay) and artists who work at provocative intersections of experimental and documentary film and video (Camille Billops and James V. Hatch, Barbara McCullough, Kevin Jerome Everson, Martine Syms). Class work includes developing a pitch for a documentary about Black documentary.

Instructor(s): J. Stewart Terms Offered: Winter

Equivalent Course(s): CMST 21082, CRES 21082, CMST 31082

CRES 31562. Third World Women's Writing. 100 Units.

Though a term initially coined by French anthropologist Alfred Sauvy to categorized "developing" nations unaligned with major world powers during the Cold War, this course asks how African, Asian, Caribbean, and other Third Worldist women writers reclaimed the "Third World" as a project of people-centered unity, and engineered what political and cultural possibilities Third Worldist literature might realize for women in the anti- and post-colonial eras and today. Students will read critical transnational feminist theory and scholarship alongside novels and short stories by such authors as Maryse Condé, Marie NDiaye, and Salwa Al Neimi. (20th/21st)

Instructor(s): Sophia Azeb Terms Offered: Winter

Equivalent Course(s): GNSE 31562, ENGL 31562

CRES 31900. ¿Cuerpos Desechables? Estéticas de la No-Vida en las Literaturas Hispanoamericanas. 100 Units.

In this seminar we will conduct a theoretical exploration of the aesthetic procedures through which human life has been represented as expendable in Spanish-American literature from the Conquest to the twenty-first century, as well as an examination of the historical and philosophical contexts within which such figurations emerged. The course will focus on case studies that correspond to four key moments in the history of the region: conquest and colonization, slavery and the formation of national states in the nineteenth century, the triumph of a capitalist export economy at the turn of the twentieth, and the violent challenges posed by globalization and narcotráfico in the contemporary context. Among the issues and texts we may engage are Fray Bartolomé de las Casas and Francisco de Vitoria's sixteenth-century dispute on the right of conquest and the Brevisima relación de la destrucción de las Indias, Esteban Echevarría's *El matadero*, Lucio Mansilla's *Una excursión a los indios ranqueles*, Juan F. Manzano's *Autobiografía de un esclavo*, Manuel Zeno Gandía's *La charca*, and Fernando Vallejo's *La virgen de los sicarios*.

Instructor(s): A. Lugo-Ortiz Terms Offered: Spring

Equivalent Course(s): SPAN 31900, HMRT 31901, LACS 31900

CRES 33001. Censorship in East Asia: The Case of Colonial Korea. 100 Units.

This course examines the operation and consequences of censorship in the Japanese Empire, with focus on its effects in colonial Korea. It begins with two basic premises: first, both the Japanese colonial authorities' measures of repression, and the Korean responses to them, can be understood as noticeably more staunch and sophisticated when compared to any other region of the Empire; and second, the censorship practices in Korea offers itself as a case that is in itself an effective point of comparison to better understand other censorship operations in general and the impact of these operations across different regions. With a view to probing an inter- and intra-relationship between censorship practices among a variety of imperial/colonial regions, this course studies the institutions related to censorship, the human agents involved in censorship-both external and internal-and texts and translations that were produced in and outside of Korea, and were subject to censorship. Overall, the course stresses the importance of establishing a comparative understanding of the functions of censorship, and on the basis of this comparative thinking we will strive to conceptualize the characteristics of Japanese colonial censorship in Korea.

Instructor(s): K. Choi Terms Offered: Autumn

Equivalent Course(s): EALC 23001, EALC 43000, MAAD 16001

CRES 33101. Love, Conjugality, and Capital: Intimacy in the Modern World. 100 Units.

A look at societies in other parts of the world demonstrates that modernity in the realm of love, intimacy, and family often had a different trajectory from the European one. This course surveys ideas and practices surrounding love, marriage, and capital in the modern world. Using a range of theoretical, historical, and anthropological readings, as well as films, the course explores such topics as the emergence of companionate marriage in Europe and the connections between arranged marriage, dowry, love, and money. Case studies are drawn primarily from Europe, India, and Africa.

Instructor(s): J. Cole, R. Majumdar Terms Offered: Winter

Prerequisite(s): Any 10000-level music course or consent of instructor

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): ANTH 32220, ANTH 21525, GNSE 23102, HIST 36903, GNSE 31700, HIST 26903, CRES 23101, SALC 43101, CHDV 33212, SALC 33101, CHDV 22212

CRES 33500. Caribbean Fiction: Self-Understanding and Exoticism. 100 Units.

The Caribbean is often described as enigmatic, uncommon, and supernatural. While foreigners assume that the Caribbean is exotic, this course will explore this assumption from a Caribbean perspective. We will examine the links between Caribbean and Old World imagination, the relationship between exoticism and Caribbean notions of superstition, and the way in which the Caribbean fictional universe derives from a variety of cultural myths.

Instructor(s): D. Desormeaux Terms Offered: Winter

Prerequisite(s): FREN 20500 or 20503

Note(s): Taught in English. A weekly session in French will be held for majors/minors and graduate students in French and Comparative Literature.

Equivalent Course(s): FREN 33500, CRES 23500, FREN 23500, LACS 23500, LACS 33500, CMLT 31801, CMLT 21801

CRES 33700. Capitalism, Colonialism, and Nationalism in the Pacific. 100 Units.

This course compares colonial capitalist projects and their dialogic transformations up to present political dilemmas, with special attention to Fiji, New Zealand, and Hawai'i, and a focus on the labor diaspora, the fates of indigenous polities, and tensions in contemporary citizenship. We will compare Wakefield's "scientific colonization" in New Zealand, Gordon's social experiments and indentured labor in Fiji, and the plantations, American annexation, tourism, and the military in Hawai'i. We will compare the colonial experiences of the Maori, Hawaiians, and indigenous Fijians, and also those of the immigrant laborers and their descendants, especially white New Zealanders, the South Asians in Fiji, and the Japanese in Hawai'i. General propositions about nationalism, capitalism "late" and otherwise, global cultural flows, and postcolonial subject positions will be juxtaposed with contemporary Pacific conflicts.

Instructor(s): J. Kelly Terms Offered: Spring

Note(s): This course qualifies as a Discovering Anthropology selection for Anthropology majors.

Equivalent Course(s): CRES 23710, ANTH 23700, ANTH 33700

CRES 34111. The Soviet Empire. 100 Units.

What kind of empire was the Soviet Union? Focusing on the central idea of Eurasia, we will explore how discourses of gender, sexuality and ethnicity operated under the multinational empire. How did communism shape the state's regulation of the bodies of its citizens? How did genres from the realist novel to experimental film challenge a cohesive patriarchal, Russophone vision of Soviet Eurasia? We will examine how writers and filmmakers in the Caucasus and Central Asia answered Soviet Orientalist imaginaries, working through an interdisciplinary archive drawing literature and film from the Soviet colonial 'periphery' in the Caucasus and Central Asia as well as writings about the hybrid conception of Eurasia across linguistics, anthropology, and geography.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): NEHC 24110, REES 24110, CMLT 34111, NEHC 34110, REES 34110, CMLT 24111, CRES 24111

CRES 35106. Slavery and Freedom in South America. 100 Units.

This seminar will examine the historiography of African slavery in South America. It will compare the responses of Africans and their descendants to the experiences of enslavement and freedom from the 16th century to the 19th century, addressing the major debates around the Atlantic Slave Trade along with comparative histories of enslavement, freedom, abolition and post-abolition in Spanish America and Brazil. Urban slavery, manumission, slave life and slave resistance, as well as the experiences of free Blacks who lived in slave societies, will also be examined.

Equivalent Course(s): LACS 35106, LACS 25106, HIST 26216, HMRT 25115, HIST 36216, HMRT 35115, CRES 25106

CRES 35107. Public history & the Memory of Slavery in Brazil and the U.S. 100 Units.

This course will address the contemporary discussion about public history and the memory of slavery in Brazil and the United States. Like the United States, Brazil declared its independence without abolishing slavery. Unlike citizens of the US, however, Brazilians constructed their notions of citizenship and nationality in a context in which racial identities were only loosely demarcated. In the nineteenth century, Brazil was the country with the largest number of Africans and the largest number of free Afro-descendants in the Americas. It also underwent an unprecedented period of economic growth, based in the coffee economy and slave labor. This growth did not, however, lead to an industrial transformation comparable to that of the US during the same period. This course will examine the paradoxes on the history of slavery and abolition in Brazil and the United States, exploring the ways in which both countries deal with their past in the present. Built on historical scholarship, movies (documentaries and historical motion pictures), digital projects and museum exhibits, this course aims to discuss the public role of historians and of historical research in new approaches about the public memory of slavery in Brazil and the United States.

Equivalent Course(s): CRES 25107, HMRT 25117, LACS 35107, HIST 36217, LACS 25107, HIST 26217, HMRT 35117

CRES 35113. From Mestizaje to the Mexican Genome. 100 Units.

As the Kingdom of New Spain became independent Mexico, how did a society structured around status, caste and corporate bodies imagine itself as a republic of equal citizens? This course will explore the categories of class, culture and, particularly, race, with which, for over two hundred years, Mexican politicians and public writers, scientists and intellectuals have sought to make sense of the nation, decipher its ethnic, linguistic and cultural diversity, assuage the profound inequalities that have riddled it, and forge a "national identity".

Equivalent Course(s): LACS 35113, LACS 25113, HIST 26124, CRES 25113, HIST 36124

CRES 36500. History of Mexico, 1876 to Present. 100 Units.

From the Porfiriato and the Revolution to the present, this course is a survey of Mexican society and politics, with emphasis on the connections between economic developments, social justice, and political organization. Topics include fin de siècle modernization and the agrarian problem; causes and consequences of the Revolution of 1910; the making of the modern Mexican state; relations with the United States; industrialism and land reform; urbanization and migration; ethnicity, culture, and nationalism; economic crises, neoliberalism, and social inequality; political reforms and electoral democracy; violence and narco-trafficking; the end of PRI rule; and AMLO's new government. Assignments: Class presentations, take-home midterm, and final essays.

Instructor(s): E. Kouri Terms Offered: Autumn

Equivalent Course(s): CRES 26500, LLSO 26500, HIST 36500, HIST 26500, LACS 26500, LACS 36500

CRES 36660. The Rise of the Global New Right. 100 Units.

This course traces the intellectual genealogies of the rise of a Global New Right in relation to the contexts of late capitalist neoliberalism, the fall of the Soviet Union, as well as the rise of social media. The course will explore the intertwining political and intellectual histories of the Russian Eurasianist movement, Hungarian Jobbik, the American Traditional Workers Party, the French GRECE, Greek Golden Dawn, and others through their published essays, blogs, vlogs and social media. Perhaps most importantly, the course asks: can we use f-word (fascism) to describe this problem? In order to pose this question we will explore the aesthetic concerns of the New Right in relation to postmodern theory, and the affective politics of nationalism. This course thus frames the rise of a global new right interdisciplinary and comparatively as a historical, geopolitical and aesthetic problem.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): REES 36661, CMLT 26660, ENGL 26660, CRES 26660, ENGL 36661, REES 26660, SIGN 26050, CMLT 36660

CRES 37002. Colloquium: Interracial America. 100 Units.

This course will examine the interaction between different racialized and ethnic groups in America (and beyond) from the eighteenth-century to our present moment. Conventional studies rely on a simplistic black-white paradigm of US race relations. This seminar aims to move beyond that dichotomy and searches for broader historical models, which include yellow, brown, red, and ethnic white. For example, how do we interpret recently excavated histories of Afro-Cherokee relations in antebellum America? What are hepcats, pachucos, and yogores? What is a "model minority," and why did Asians inherit the mantle from Jews? What is a "protest minority," and why were Blacks and Jews labeled as such during the civil rights movement? How does race operate differently in an ostensible racial paradise like Hawai'i? How do we understand race, nation, and decolonization in a global context, as evidenced by radical activism in California in the 1960s and '70s? We will critically interrogate the history of contact that exists between and among these diverse "groups." If conflicted, what factors have prevented meaningful alliances? If confluent, what goals have elicited cooperation?

Equivalent Course(s): AMER 47002, HIST 47002

CRES 37110. Égalité des races dans la francophonie. 100 Units.

La réflexion anthropologie sur la Caraïbe commence avec les premières explorations européennes au cours des 15e et 16e siècles. Tout comme lors du développement de la colonisation, puis du système esclavagiste inauguré par le Code Noir (1685), la question raciale s'instaure au cœur même de la revendication républicaine des esclaves et de l'indépendance haïtienne. C'est cependant au milieu du 19e siècle, période où triomphe l'anthropologie positive, que paraîtront deux ouvrages majeurs sur la question raciale: De l'inégalité des races (1853) de Gobineau et De l'égalité des races humaines (1885) d'Anténor Firmin, l'un des premiers noirs à être membre de la Société d'anthropologie de Paris. Le séminaire analysera ces deux ouvrages en rapport avec l'esprit et l'histoire des idées de l'époque en mettant en évidence, à travers les réflexions théoriques et les œuvres des Durkheim, Firmin, Gobineau, Hibbert, Joseph-Janvier, Madiou, Marcelin, Moreau de Saint-Méry, Renan, Saint-Rémy, Schœlcher, l'émergence croisée et progressive d'un formidable discours sur la race dans l'histoire, la littérature et la philosophie politique, tout au long de la deuxième moitié du 19e siècle.

Equivalent Course(s): CRES 27100, FREN 27100, FREN 37100

CRES 37200. African American History to 1883. 100 Units.

A lecture course discussing selected topics in the African American experience (economic, political, social) from African origins through the Supreme Court decision invalidating Reconstruction Era protections of African American civil rights. Course evaluations via online quizzes and take-home essays.

Instructor(s): T. Holt Terms Offered: Winter

Equivalent Course(s): HIST 27200, CRES 27200, HIST 37200, LLSO 26901

CRES 37207. The North American West, 1500 - 1900. 100 Units.

Go west, young man, go west!" newspaper editor Horace Greeley allegedly proclaimed. Although he only visited the region himself, his proclamation referred to the host of opportunities thought to be lying in wait among the uncharted territories out yonder. The West has embodied both the American dream and an American nightmare. This co-taught class will examine the changing delineations, demographics, conceptualizations, and significance of the North American West across four centuries and several empires.

Equivalent Course(s): AMER 27207, GNSE 27207, GNSE 37207, AMER 37207, HIST 27207, HIST 37207, CRES 27207

CRES 37300. African American History since 1883. 100 Units.

A lecture course discussing selected topics in the African American experience (economic, political, social) from Reconstruction Era protections of African American civil rights through social and political movements in the twentieth and twenty-first centuries seeking their restoration. Course evaluations via online quizzes and take-home essays.

Instructor(s): T. Holt Terms Offered: Spring

Equivalent Course(s): HIST 37300, LLSO 28800, CRES 27300, HIST 27300

CRES 37401. Literaturas Del Caribe Hispanico en el siglo XX. 100 Units.

This course will explore some key examples of the literatures of the Spanish-speaking Caribbean (Cuba, Puerto Rico, and Santo Domingo) during the twentieth century, including those of its migrant and exile communities. Questions concerning the literary elaboration of the region's histories of slavery and colonialism, militarization, and territorial displacements will be at the center of our discussions. Among the authors we may read are Fernando Ortiz, Antonio Pedreira, Pedro Henriquez Ureña, Luis Palés Matos, Nicolás Guillén, René Marqués, Pedro Pietri, Alejo Carpentier, Ana Lydia Vega, Eduardo Lalo, and Pedro Juan Gutiérrez.

Equivalent Course(s): LACS 27401, SPAN 27401, CRES 27401, LACS 37401, SPAN 37401

CRES 37403. African American Lives and Times. 100 Units.

This colloquium will examine selected topics and issues in African American history during a dynamic and critical decade, 1893 and 1903, that witnessed the redefinition of American national and sectional identities, social and labor relations, and race and gender relations. A principal premise of the course is that African American life and work was at the nexus of the birth of modern America, as reflected in labor and consumption, in transnational relations (especially Africa), in cultural expression (especially music and literature), and in the resistance or contestation to many of these developments. The course will focus on the Chicago World's Fair and the publication of Du Bois's *Souls of Black Folk* as seminal moments in the era. Our discussions will be framed by diverse primary materials, including visual and aural sources, juxtaposed with interpretations of the era by various historians. A principal goal of the course is that students gain a greater appreciation for interpreting historical processes through in-depth examination of the complex and multiple currents of an defined era-a slice of time-as well as skills in interpreting diverse primary sources.

Instructor(s): T. Holt Terms Offered: Winter

CRES 37534. The Aspirational City: Chicago's Multicultural Communities. 100 Units.

No city has meant more to the hopes and dreams of more divergent groups of Americans than Chicago. The *Aspirational City: Chicago's Multicultural Communities* will explore the histories of Chicago's various racial, ethnic and marginalized communities and the ways in which they have sought to fashion the destinies of themselves, their communities, and the city of Chicago. The course is a weekly seminar open to both undergraduate and graduate students.

Terms Offered: Spring

Equivalent Course(s): ENST 27534, CRES 27534

CRES 37705. Introduction to Black Chicago, 1893 to 2010. 100 Units.

This course surveys the history of African Americans in Chicago, from before the twentieth century to the near present. In referring to that history, we treat a variety of themes, including migration and its impact, the origins and effects of class stratification, the relation of culture and cultural endeavor to collective consciousness, the rise of institutionalized religions, facts and fictions of political empowerment, and the correspondence of Black lives and living to indices of city wellness (services, schools, safety, general civic feeling). This is a history class that situates itself within a robust interdisciplinary conversation. Students can expect to engage works of autobiography and poetry, sociology, documentary photography, and political science as well as more straightforward historical analysis. By the end of the class, students should have grounding in Black Chicago's history and an appreciation of how this history outlines and anticipates Black life and racial politics in the modern United States.

Instructor(s): A. Green Terms Offered: Winter

Equivalent Course(s): AMER 27705, HIST 27705, LLSO 22209, HIST 37705, AMER 37705, CRES 27705

CRES 37709. Soul and the Black Seventies. 100 Units.

This course considers in what ways soul as cultural genre and style shaped, and was shaped by, the political, social, structural, cultural, and ethical shifts and conditions associated with the 1970s. It will focus on popular music as both symbolic field and system of production, while also taking up other forms of expression-literary, intellectual, institutional, activist-in order to propose an alternate, and compelling, archive for this era. The course intends to deepen understanding of the feel and meaning of soul by relating it to consequential legacies of the 1970s: urban identity and crisis, emerging limitations of racial reformism, the deepening class stratification of Black life, and the radical disruption of social norms through feminism, in particular Black feminism.

Instructor(s): A. Green Terms Offered: Spring

Prerequisite(s): Graduate students by consent of instructor.

Equivalent Course(s): MUSI 27709, CRES 27709, HIST 27709, GNSE 27709, HIST 37709, MUSI 37709, GNSE 37709

CRES 37900. Asian Wars of the Twentieth Century. 100 Units.

This course examines the political, economic, social, cultural, racial, and military aspects of the major Asian wars of the twentieth century: the Pacific War, the Korean War, and the Vietnam War. At the beginning of the course we pay particular attention to just war doctrines and then use two to three books for each war (along with several films) to examine alternative approaches to understanding the origins of these wars, their conduct, and their consequences.

Instructor(s): B. Cumings Terms Offered: Spring

Equivalent Course(s): EALC 27907, HIST 37900, EALC 37907, HIST 27900, CRES 27900

CRES 38703. Baseball and American Culture, 1840 to Present. 100 Units.

This course will examine the rise and fall of baseball as America's national pastime. We will trace the relationship between baseball and American society from the development of the game in the mid-nineteenth century to its enormous popularity in the first half of the twentieth century to its more recent problems and declining status in our culture. The focus will be on baseball as a professional sport, with more attention devoted to the early history of the game rather than to the recent era. Emphasis will be on using baseball as a historical lens through which we will analyze the development of American society and culture rather than on the celebration of individuals or teams. Crucial elements of racialization, ethnicity, class, gender, nationalism, and masculinity will be in play as we consider the Negro Leagues, women's leagues, the Latinization and globalization of the game, and more.

Instructor(s): M. Briones Terms Offered: Winter

Prerequisite(s): High-school US history or a college (100-level) US history course, if possible.

Equivalent Course(s): HIST 28703, HIST 38703, CRES 28703

CRES 38906. Nineteenth-Century American Mass Entertainment. 100 Units.

Popular culture filters, reflects, and occasionally refracts many of the central values, prejudices, and preoccupations of a given society. From the Industrial Revolution to the advent of feature films in the early twentieth century, American audiences sought both entertainment and reassurance from performers, daredevils, amusement parks, lecturers, magicians, panoramas, athletes, and photographers. Amidst the Civil War, they paid for portraits that purportedly revealed the ghosts of lost loved ones; in an age of imperialism, they forked over hard-earned cash to relive the glories of western settlement, adventure, and conquest in Buffalo Bill's Wild West. Mass entertainment not only echoed the central events of the age it helped shape them: from phrenology as the channel for antebellum convictions about outward appearance (and racial identity), to the race riots following Jack Johnson's boxing victory over Jim Jeffries. Many of these entertainment forms became economic juggernauts in their own right, and in the process of achieving unprecedented popularity, they also shaped collective memory, gender roles, race relations, and the public's sense of acceptable beliefs and behaviors. This lecture course will examine the history of modern American entertainment over the course of the long nineteenth century. Requirements include careful reading, active and thoughtful participation, and written assignments.

Equivalent Course(s): GNSE 38906, HIST 28906, GNSE 28906, CRES 28906, HIST 38906

CRES 39117. Theater and Performance in Latin America. 100 Units.

What is performance? How has it been used in Latin America and the Caribbean? This course is an introduction to theatre and performance in Latin America and the Caribbean that will examine the intersection of performance and social life. While we will place particular emphasis on performance art, we will examine some theatrical works. We ask: how have embodied practice, theatre and visual art been used to negotiate ideologies of race, gender and sexuality? What is the role of performance in relation to systems of power? How has it negotiated dictatorship, military rule, and social memory? Ultimately, the aim of this course is to give students an overview of Latin American performance including blackface performance, indigenous performance, as well as performance and activism.

Instructor(s): D. Roper Terms Offered: Winter

Prerequisite(s): Undergraduates must be in their third or fourth year

Note(s): Taught in English.

Equivalent Course(s): GNSE 29117, LACS 29117, LACS 39117, GNSE 39117, TAPS 28479, TAPS 38479, SPAN 39117, CRES 29117, SPAN 29117

CRES 39421. Politics of Commemoration. 100 Units.

Most of the time we pass in front of the statues, commemorative museums, monuments, and flags that inhabit our cities without noticing them. In recent years, however, they (along with pre-college history curricula) have become controversial across the globe. This course addresses those controversies primarily in Europe and the United States, but also in Latin America, West Africa, and South Africa. Through a series of case studies we will analyze the conditions of the creation of statues, monuments, and museums. Who conceptualized them and lobbied for their creation? Who paid for them? For whom were they originally intended? What message did they convey? What happened over time? How did their message change? Did they provoke controversy at the moment of their planning or inauguration or later and, if so, from whom? Equal attention will be paid to scholars' efforts to address the question of what these commemorative works actually do. If they really become unnoticeable, then why does the threat of their removal so often spark such intense controversy? Assignments: Active participation in class, one secondary text analysis, one analysis of a controversy, and one proposal for a monument, museum, or school curriculum.

Instructor(s): L. Auslander Terms Offered: Spring

Equivalent Course(s): HIST 39421, JWSC 29421, GLST 29526, LLSO 29421, HIST 29421, CRES 29421

CRES 39519. Histories of Racial Capitalism. 100 Units.

This course takes as its starting point the insistence that the movement, settlement, and hierarchical arrangements of people of African descent is inseparable from regimes of capital accumulation. It builds on the concept of "racial capitalism," which rejects treatments of race as external to a purely economic project and counters the idea that racism is an externality, cultural overflow, or aberration from the so-called real workings of capitalism. With a focus on the African diaspora, this course will cover topics such as racial slavery, labor in Jamaica, banking in the Caribbean, black capitalism in Miami, the under development of Africa, mass incarceration, and the contemporary demand for racial reparations.

Equivalent Course(s): CRES 29519, HIST 39519, HIST 29519

CRES 40110. Color, Ethnicity, Cultural Context, and Human Vulnerability. 100 Units.

The specific level of vulnerability may vary across the life course; nevertheless, all humans are vulnerable and, thus, unavoidably possess both risks and protective factors. The level and character of human vulnerability matters and has implications for physical health, psychological well being, the character of culture, and mental health status. The balance between the two (i.e., risks and protective factors) can be influenced by ethnic group membership and identifiability (e.g., skin color). The cultural contexts where growth and development take place play a significant role in life course human development. As a globally admired cultural context with a particular national identity, one of America's foundational tenets is that citizenship promises the privilege of freedom, allows access to social benefits, and holds sacred the defense of rights. Our centuries-old cultural context and national identity as a liberty-guaranteeing democracy also presents challenges. The implied identity frequently makes it difficult to acknowledge that the depth of experience and its determinative nature may be but skin deep. In America, there continues to be an uneasiness and palpable personal discomfort whenever discussions concerning ethnic diversity, race, color, and the Constitutional promise and actual practice of equal opportunity occur. Other nations are populated with vulnerable humans, as well, and experience parallel dissonance concerning the social tolerance of human diversity. Given the shared status of human vulnerability, the course unpacks and analyzes how differences in ethnicity, skin color, and other indicators of group membership impact vulnerability and opportunity for diverse groups. Specifically, the course analyzes the balance between risk level and protective factor presence and examines the consequent physical health status, psychological well-being, and mental health outcomes for its dissimilar citizens. The course especially emphasizes the American cultural context but, in addition, highlights the unique experiences of ethnically varied individuals developing in multiple cultural contexts around the globe.

Instructor(s): M. Spencer Terms Offered: Autumn

Prerequisite(s): Undergraduates require permission from instructor.

Equivalent Course(s): CHDV 40110

CRES 40270. Development in Adolescents. 100 Units.

Adolescence is a period of rapid growth and development irrespective of circumstances, contextual conditions and supports; thus, it represents both significant challenges and unique opportunities. The conceptual orientation taken acknowledges the noted difficulties but also speculates about the predictors of resiliency and the sources of positive youth development achieved. The course delineates the developmental period's complexity made worse by the many contextual and cultural forces due to socially structured conditions; that fact interact with youths' unavoidable and unique meaning-making processes. As a function of some youths' privileging circumstances versus the low resource and chronic conditions of others, both coping and identity formation processes are emphasized as highly consequential. Thus, stage specific developmental processes are explored for understanding gap findings for a society's diverse youth given citizenship requirements expected of all. In sum, the course presents the experiences of diverse youth from a variety of theoretical perspectives. The strategy improves our understanding about the "what" of human development as well as dynamic insights about the "how" and "why." Ultimately, the conceptual orientation described is critical for 1) designing better social policy, 2) improving the training and support of socializing agents (e.g., teachers), and 3) enhancing human developmental outcomes (e.g., resilient patterns).

Instructor(s): M. Spencer Terms Offered: Autumn

Prerequisite(s): Graduate students only.

Note(s): CHDV Distribution: 2*

Equivalent Course(s): CHDV 40207

CRES 40304. Between Nature and Artifice: The Formation of Scientific Knowledge. 100 Units.

This course critically examines concepts of "nature" and "artifice" in the formation of scientific knowledge, from the Babylonians to the Romantics, and the ways that this history has been written and problematized by both canonical and less canonical works in the history of science from the twentieth century to the present. Our course is guided by three overarching questions, approached with historical texts and historiography, that correspond to three modules of investigation: 1) Nature, 2) Artifice, and 3) Liminal: Neither Natural nor Artificial.

Instructor(s): Margaret Carlyle, Eduardo Escobar, Jennifer P. Daly Terms Offered: Spring

Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. Ph.D. students must register with the KNOW 40304 course number in order for this course to meet the requirement.

Equivalent Course(s): KNOW 40304, GNSE 40304, HIST 34920, CHSS 40304, HIPS 40304

CRES 41500. Bodies of Transformation. 100 Units.

Drawing on trans studies, disability studies, histories of science, queer and postcolonial theory, this class contends with how bodies and bodies of knowledge change over time. Bodies of Transformation takes a historiographic approach to the social, political, and cultural underpinnings of corporeal meaning, practice and performance in the 19th and 20th centuries. Animating questions include: what is the corporeal real? how is race un/like gender? how does bodily transformation map the complex relationships between coercion and choice?

Instructor(s): C. Riley Snorton Terms Offered: Autumn

Equivalent Course(s): TAPS 41500, ENGL 41500, GNSE 41500

CRES 42610. Theologies from the Underside of History. 100 Units.

This course compares and contrasts various systems and methods in contemporary Third World theologies, that is, in Africa, Asia, and Latin America. As a backdrop for this critical comparative engagement, we will use the recent theological dialogues taking place in the Ecumenical Association of Third World Theologians (EATWOT). As we engage these systems of thought, we want to examine the logic of their theologies and the sources used to construct theology.

Equivalent Course(s): THEO 42610

CRES 43505. Colloquium: Paris and Berlin in the Long Twentieth Century. 100 Units.

This colloquium will analyze the convergences and divergences, focusing on immigration, urban planning, and culture of two of Europe's great capitals from the turn of the twentieth century to its end. Starting with the massive intra- and international immigration into both cities in the 1880s, we will discuss how strangers were received and made their lives. Where did they live, work, eat, shop, play, and worship? How did they participate in the political lives of both cities? How did the experiences of postcolonial subjects and guest-workers vary? This population growth along with economic, technological, environmental, and political change challenged each metropolis's infrastructure. In the interwar period Berlin responded by expansion while Paris refused that strategy. Berlin's demolition during the Second World War was followed by forty years of division while Paris emerged from the war largely unscathed. Europeanification, followed by unification in the one case and massive postcolonial immigration in other, posed very different, but equally dramatic, challenges to both. Finally, both cities have been the centers of vibrant cultural production, including music, theater, the fine arts, film, and literature, with artists often moving between the two, carrying ideas and innovations. Films, novels, maps, memoirs, architectural drawings, photographs, city-planning treatises, tourist guides, and reports from world fairs will be the basis of class discussions, seconded by the r

Equivalent Course(s): GNSE 43505, HIST 43505

CRES 44502. Black Theology: Liberation or Reconciliation. 100 Units.

Equivalent Course(s): THEO 44502

CRES 45503. The Study of Criminal Justice and Race in the United States. 100 Units.

This course will familiarize students with the major themes in recent scholarship on criminal justice and race in the United States. These include how racial hierarchies influence legislation, the role criminal justice plays in racial construction, the functioning of bureaucracies in racialized societies, and the political consequences of criminal justice policy. It will also take this scholarship as an object of study to critically assess the scope of questions being answered in this area, and examine the relationship between epistemological commitments, ontological premises, and the ability of systematic inquiry to serve or subvert racial hierarchies.

Terms Offered: Spring

Note(s): A. McCall

Equivalent Course(s): PLSC 45502

CRES 45700. Race and Capitalism. 100 Units.

This course will address issues of race and capitalism.

Instructor(s): Dawson, Michael Katzenstein, Emily Terms Offered: Winter

Equivalent Course(s): PLSC 45710

CRES 45732. Prejudice and Discrimination: Individual Cost and Response. 100 Units.

This foundational diversity class explores the origins and practices of racial/ethnic prejudice, stereotypes, and discrimination, and how demographic factors such as class, gender, sexuality, and nationality intersect to solidify and perpetuate inequality. We will explore the resulting psychological, economic, and sociopolitical tolls on individuals, and also examine various individual responses that can mitigate the negative impacts of or engage in resistance towards such discrimination (such as racial/ethnic identity development, deliberate retention of heritage culture, and social/political mobilization). Moreover, we will examine how these individual responses together with organized and collective efforts can bring about social changes. This class consciously expands a dominant binary discourse of race to develop a more inclusive and complex paradigm that accurately reflects the diversity of contemporary America.

Equivalent Course(s): SSAD 25732, SSAD 45732, CRES 25732

CRES 46751. Of Whiteness. 100 Units.

In his essay "The Souls of White Folk," WEB Du Bois asks, "But what on earth is whiteness that one should so desire it?" This course will explore a multiethnic cultural and theoretical archive that grapples with the patterned and partial irrationality of this excessive racial desire. How does whiteness structure the racial/social field? What mechanisms regulate-or have regulated-populations' access to and desire for it? (18th/19th)

Instructor(s): Christopher Taylor Terms Offered: Spring

Equivalent Course(s): ENGL 46751

CRES 47101. Re-imaging US Civil War & Reconstruction. 100 Units.

Equivalent Course(s): AMER 47101, HIST 47101

CRES 48700. Colloquium: Social Movements in Chicago, 1950-2010. 100 Units.

This graduate colloquium considers the constellation of social movements that emerged in Chicago in the late 1960s, using old and new approaches to contentious politics. Chicago comprises an urban context that simultaneously encompasses a robust labor tradition, coherent expressions of situated or identity-oriented advocacy, a sustained radical intellectual tradition, localized community-oriented philosophy of organizing, and one of the fullest concentrations of municipal authority, as a party machine regime and also a law enforcement apparatus. Taken together, these conditions and others mark Chicago as among the most revealing crucibles for movement building in the United States over the past half century. The course seeks to survey emerging scholarship on the constitution, contradictions, and impact of movement building in Chicago, seen largely through four case studies—the Puerto Rican movement, radical feminism, LGBTQ liberation/rights, and African American struggles to achieve police accountability. Additionally, the course will survey classic and emerging models of social-movement theory, in order to offer models of analysis for a mode of politics, power, and social formation especially consequential to recent history and poised, to continue to exert significant influence. Finally, the course will introduce students to new archives, new source bases, and community-based instructors and authorities, in order to suggest innovative and relevant research projects.

Instructor(s): A. Green Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor.

Equivalent Course(s): HIST 48700, GNSE 48700

CRES 49001. Colloquium: Slavery & Emancipations-Atlantic Histories. 100 Units.

This course explores political, economic, and cultural linkages among Europe, Africa, and the Americas, as they were fashioned and reconstructed through slavery and the slave trade, slave emancipations and post-emancipation labor regimes, post-abolition colonial projects and post-emancipation racial ideologies and anticolonial liberation movements. Toward the end of the twentieth century, academic historiography revived what in shorthand fashion is termed an "Atlantic world" as a frame of historical analysis. The premises of varying Atlantic frameworks will receive attention in order to explore ways to think historically about material, ideological, and symbolic connections fashioned by slavery and the slave trade and the refashioning of these relationships in a world whose inter-connections were increasingly not premised on the illegitimacy of laws and many practices of enslavement.

Instructor(s): J. Saville Terms Offered: Winter

Prerequisite(s): Graduate Students Only

Equivalent Course(s): HIST 69001, LACS 69001

CRES 49100. Colloquium: Haitian Revolution and Human Rights, 1790-2004. 100 Units.

This course explores the Haitian revolution as critical to the examination of slave emancipation, colonialism, comparative revolutions, and postcolonial governance and sovereignty. It especially aims to explore interpretive debates that explicitly (or implicitly) link the problems of slave emancipation to the contradictions of modern freedom. Course readings draw on historical, anthropological, and political studies, selected published documents, and historical fiction to think critically about ways of extending how this history and its implications have been explored.

Equivalent Course(s): HMRT 49100, LACS 49100, HIST 49100

CRES 50755. Race/Capital/Extraction. 100 Units.

In the concluding chapters of *Capital*, Vol. 1, Karl Marx describes the origins of capitalism as an enterprise "written in the annals of mankind in letters of blood and fire." This process that Marx christened as "so-called primitive accumulation" rests fundamentally on the extraction of raw materials through colonial regimes of enclosure and the brutal exploitation of racialized labor. Nonetheless, the relationship between race and capital is not sufficiently elaborated in Marx's oeuvre. In turn, this course will reconsider Marxist concepts and categories through a critical evaluation of the analytical domains of "race," "capital," and "extraction." Moreover, students will consider the extent to which these domains productively modify each other: Does capitalism as an economic system depend on race as its ideological substrate? Can race be understood as an extractive project founded the violent enslavement and mercantile transit of racialized laboring subjects? How are the production of race and the accumulation of capital transformed by extractive economies of fossil fuels and metallic ores? To this end, students will consult the writings of W.E.B. Du Bois, C.L.R. James, Claudia Jones, Walter Rodney, Sidney Mintz, Norman Girvan, Lloyd Best and Kari Polanyi Levitt.

Instructor(s): Ryan Jobson Terms Offered: Winter, Winter 2020

Equivalent Course(s): ANTH 50755, CHSS 50755

CRES 54104. On Man: Sociogenesis and Subjectivation. 100 Units.

In this course, students will read and engage with how "Man" has been conceptualized and critiqued in certain areas of philosophy and critical theory. The class begins with Man's emergence in colonial contexts, with readings from Frantz Fanon, Homi Bhabha, and Sylvia Wynter. Students will also contend with Man's intersubjectivity with the "Subject" with readings from Michel Foucault, Judith Butler, Jose Munoz, and Hortense Spillers. Memoirs, novels, and auto-documentary films supplement these courses' exploration of the genealogies of "Man." (20th/21st)

Instructor(s): C. Riley Snorton Terms Offered: Winter

Equivalent Course(s): ENGL 54104, GNSE 54104

CRES 56300. The Global Plantation. 100 Units.

From its emergence in the late-medieval Mediterranean, to the slave societies of the New World, through its late colonial heritage in Africa, Asia, and the Pacific, the plantation has been a paradigmatic institution of racial-capitalist modernity. Through a range of texts that includes slave narratives, novels, political economy, sociological studies and recent histories of capitalism, this course explores how the plantation opened a vexed problem-space in which concepts central to the modern world (such as sovereignty, freedom, and labor) emerged, were debated, and continuously refigured. While the plantation is frequently figured as an institution of the past, this transnationally and transhistorically oriented course will examine a set of thinkers who argue for the aliveness of the plantation's present in the shaping of political, economic, and social trajectories in the postcolonial world.

Instructor(s): Christopher Taylor & Adam Getachew Terms Offered: Spring

Equivalent Course(s): ANTH 50405, ENGL 55603, PLSC 56300, CDIN 56300

CRES 56675. Violence, Trauma, Repair. 100 Units.

This course offers an interdisciplinary encounter with three concepts of abiding interest to scholars in the humanities and humanistic social sciences: violence, trauma, and repair. We begin with theoretical considerations about violence and its role in the founding of new political orders. The second part tackles the question of trauma, a concept that has achieved a remarkable prominence across many disciplines. But this ascendance also brought with it a number of critiques, among them that the concept is often deployed in apolitical and romanticized terms. We take on these critiques by bringing into conversation works from varying contexts: the Rwandan genocide, the Transatlantic Slave Trade, the Holocaust and Apartheid South Africa. The final part focuses on the consequences of violent acts and notions of repair formulated in the language of trauma, suffering and human rights. We ask: What is the operating rationale in this line of thinking about the contemporary world? How has it emerged, and through what kinds of institutions, interventions and techniques does it operate and extend its power across the globe?

Instructor(s): Sonali Thakkar & Natacha Nsabimana Terms Offered: Spring

Prerequisite(s): Consent required: Email Professor Nsabimana a paragraph long description about what you bring and what you hope to get out of this seminar.

Equivalent Course(s): CDIN 56675, ENGL 56675, ANTH 52510, HMRT 50005

CRES 61102. The L.A. Rebellion and the Politics of Black Cinema. 100 Units.

Equivalent Course(s): CMST 61102

CRES 62604. Visual Culture in American Life, 1800-1915. 100 Units.

How has American society's insatiable thirst for visual media influenced the way US citizens have viewed one another and portrayed themselves to others? In this course we will explore the significance of what Raymond Williams called the "cultural revolution" for the lives of ordinary men and women in the United States. This history encompasses subjects that have retained their relevance in contemporary life, including racial and ethnic stereotypes, armchair travel, virtual versus lived reality, authenticity and artifice, mass entertainment, city life, celebrity, and gender. Readings will include a series of theoretical works in combination with articles and monographs, to provide a broader underpinning for the problems of perception and historical analysis at play in this realm of scholarly thought and practice.

Instructor(s): A. Lippert Terms Offered: Spring

Equivalent Course(s): AMER 62604, HIST 62604, GNSE 62604

CRES 62805. Colloquium: American Conservatism, 1945-Present. 100 Units.

This course explores the burgeoning historiography of American conservatism, tracing the movement from its grassroots origins after World War II to its institutionalization and militarization in the Reagan era to the rise of evangelicalism and Tea Party politics. We will focus on the role of women in the movement, the ideological alliances in its founding, and the roles of particular conservative groups in the movement's history. This course will move both chronologically and thematically to explore fundamental questions about activism and radicalization, grassroots and top-down ideologies, and the impact of conservative thought and institutions upon American society and state in the late twentieth century.

Equivalent Course(s): HIST 62805, AMER 62805, GNSE 62805

CRES 69002. Colloquium: Slavery and Emancipations-Atlantic Histories. 100 Units.

This course explores political, economic, and cultural aspects of slave emancipations, emphasizing major transformations in Caribbean-Atlantic and North American slave systems since the first abolitionist measures of the mid-eighteenth through the early twentieth centuries. The interpretive possibilities opened by varying comparative frameworks will be considered in order to explore ways to think historically about material, ideological, and symbolic connections fashioned by slavery and the slave trade and the refashioning of these relationships in a world whose interconnections were increasingly premised on the illegitimacy of laws and many of the practices of enslavement.

Equivalent Course(s): LACS 69002, HIST 69002

CRES 79101. Seminar: Topics in Latin American History I. 100 Units.

This two-quarter research seminar is devoted to the craft of reading and writing Latin American history. Specific topics will shift from year to year, depending on the instructor. This seminar can be taken either as a two-quarter seminar sequence, which culminates in a winter-quarter research paper, or as a autumn-quarter colloquium.

Instructor(s): D. Borges Terms Offered: Autumn

Equivalent Course(s): LACS 79101, HIST 79101

CRES 79102. Seminar: Topics in Latin American History II. 100 Units.

The second quarter is mainly for graduate students writing a History seminar paper.

Instructor(s): D. Borges Terms Offered: Winter

Prerequisite(s): HIST 79101

Equivalent Course(s): LACS 79102, HIST 79102



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- Dingxin Zhao - Sociology
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- Jonathan Lio - Medicine
- Thomas Manning - Law School
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- Or Porath - East Asian Languages and Civilizations
- Martin Powers - Art History
- Raaj Sah - Public Policy
- Olga Solovieva - Comparative Literature
- Grace Tsiang - Economics
- Christian Wedemeyer - Divinity School
- Jake Werner - History
- John E. Woods - Near Eastern Languages and Civilizations
- Lynn Xu - Creative Writing
- Chun-su Yuan - Anesthesia and Critical Care

Lecturers

- Satoko Bourdaghs - East Asian Languages and Civilizations
- Yoko Katagiri - East Asian Languages & Civilizations
- Jieun Kim - East Asian Languages & Civilizations
- Yi-Lu Kuo - East Asian Languages & Civilizations
- Meng Li - East Asian Languages & Civilizations
- Harumi Lory - East Asian Languages & Civilizations
- Misa Miyachi - East Asian Languages & Civilizations
- Won Kyung Na - East Asian Languages & Civilization
- Laura A Skosey - East Asian Languages & Civilizations
- Katherine Tsiang - Art History; Center for the Art of East Asia
- Xiaorong Wang - East Asian Languages & Civilizations
- Youqin Wang - East Asian Languages & Civilizations
- Shan Xiang - East Asian Languages & Civilizations
- Jun Yang - East Asian Languages & Civilizations
- Yujia Ye - East Asian Languages & Civilizations

Library Personnel

- Yuan Zhou, Curator, East Asian Collection, Regenstein Library
- Jee-Young Park, East Asian Collection, Regenstein Library
- Jiaxun Benjamin Wu, East Asian Collection, Regenstein Library
- Ayako Yoshimura, East Asian Collection, Regenstein Library

Professors Emeriti

- George Chih-ch'ao Chao
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- Norma Field
- Tetsuo Najita
- William Parish
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The Center for East Asian Studies (CEAS) endeavors to broaden the East Asian focus in interdisciplinary scholarship for which UChicago is famous by supporting a wide range of events, graduate fellowships, and faculty research initiatives. Our activities support training in East Asian studies and languages across an array of disciplines and professional schools on campus. CEAS works to enhance opportunities available to scholars both in the United States and abroad, and to foster communication and interdisciplinary collaboration among the community of professors and students at UChicago and throughout the wider East Asian Studies community. To these ends, CEAS sponsors a variety of activities including conferences, graduate workshops, film screenings, cultural events, public lectures, and other programs that promote understanding of the cultures and societies of China, Japan and Korea. Our faculty and programs in East Asian studies regularly achieve the highest rankings among peer institutions in the United States, making East Asian Studies at the University of Chicago an invaluable national resource and a focal point for East Asian Studies in the Midwest. CEAS has been designated a National Resource Center for East Asian Studies by the United States Department of Education.

Student fellowships, faculty research, and a wide range of events form the core of the Center's activities. For more information about graduate fellowships—including conference travel grants, pre-dissertation research grants, and other offerings—visit our website <http://ceas.uchicago.edu> and click on the 'Grants and Fellowships' tab.

In addition, the East Asian Film Library at CEAS is one of the largest such collections in North America, containing over 7,000 titles from China, Japan, and Korea. It is particularly strong in independent film, documentaries, WWII issues, LGBTQ in East Asia, anime, Korean dramas, and Chinese Opera. The Film Library is free for UChicago student, staff, or faculty use. For more information, please visit <https://ceas.uchicago.edu/content/film-library>.

More information about all of our initiatives and to sign up for our email lists, please visit <http://ceas.uchicago.edu>.



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- Olga Solovieva - Comparative Literature and the College
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- Malynne Sternstein - Slavic Languages & Literatures and the College
- Yuri Tsvivan – Art History, Slavic, Cinema & Media Studies, Comparative Literature and the College

- Robert Ward Vishny – Booth School of Business
- John E. Woods – History, Near Eastern Languages & Civilizations and the College
- Alan Yu – Linguistics and the College
- Tara Zahra – History and the College

Lecturers

- Helga Anetshofer – Near Eastern Languages & Civilizations and the College
- Kagan Arik - Near Eastern Languages & Civilizations and the College
- Mark Baugher - Slavic Languages & Literatures
- Hripsime Haroutunian – Near Eastern Languages & Civilizations and the College
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- Valentina Pichugin - Slavic Languages & Literatures
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- June P. Farris – Slavic and East European Collections, Regenstein Library
- Sandra Levy – Slavic and East European Collections, Regenstein Library

Other Affiliates

- Leonid Gavrillov - NORC
- Natalia Gavrillova - NORC
- Natalia Tamarina - School of Medicine
- Tasha Vorderstrasse - Oriental Institute

The Center for East European and Russian/Eurasian Studies (CEERES) is an interdivisional center which promotes the study of, and research about, the countries of Central and Eastern Europe and the former Soviet Union. The University of Chicago has been providing instruction in disciplines of the CEERES region continuously since 1903, when courses in Russian language and area studies were begun. The center now known as CEERES has been in existence since 1965, and it continues to coordinate instruction and facilitate research about Russia/Eurasia and Eastern/Central Europe, including the Baltic States, the Balkans, the Caucasus, and Central Asia.

In addition to its robust language offerings, CEERES supports curricula which are particularly strong in Russian/Soviet history; Slavic, Balkan, and Caucasian linguistics; nationalities studies of the former USSR; Slavic literatures (Russian, Polish, Czech, Balkan); Russian and East European cultural anthropology; comparative literature; Russian and East European film and art history; and business administration. CEERES affiliated faculty have expertise also in political science, international relations, economics, sociology, and Central and Eastern European, Byzantine, and Ottoman history. The center does not itself offer a separate master's degree; however, it does administer a joint A.M./M.B.A. degree through the Division of the Social Sciences in conjunction with the University of Chicago Booth School of Business. The faculty members that teach and do research in the CEERES area are supported by one of the best libraries in the country.

CEERES has a mission to disseminate information about and increase knowledge of a vast and diverse region of the world. We have a firm commitment to scholarship within the university community that extends to outreach to the greater Chicago community, the nation, and the world. We fulfill our mission through conferences, workshops, and seminars, including close collaboration with the Council on Advanced Studies workshops; by providing curricular support and administering Foreign Language and Area Studies (FLAS) Fellowships; by organizing teacher training workshops and assisting in developing CEERES-focused curricula for K-12 and community college instruction; and by hosting concerts and cultural programming, including music and dance performances, films, and art exhibits open to the general public. We have recently launched a new project with the Seminary Co-op Bookstore, an author series called A CEERES of Voices, promoting literature and scholarship about the CEERES region or by authors from the CEERES region. We publicize our activities at our website (ceeres.uchicago.edu), through weekly e-bulletins sent through our listserv, by means of our annual

newsletter, and through *East From Chicago*, a multimedia blog covering events and issues related to Russian and East European Studies at the University of Chicago (<https://lucian.uchicago.edu/blogs/eastfromchicago/>).



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- Nicolas Dauphas, Geophysical Sciences
- Andrew Davis, Geophysical Sciences
- Henry J. Frisch, Physics
- Lawrence Grossman, Geophysical Sciences
- Jeffrey A. Harvey, Physics
- Craig Hogan, Astronomy & Astrophysics
- Daniel E. Holz, Physics
- Wayne Hu, Astronomy & Astrophysics
- Alexei Khokhlov, Astronomy & Astrophysics
- Young Kee Kim, Physics
- Edward W. Kolb, Astronomy & Astrophysics
- Ariele Königl, Astronomy & Astrophysics
- Andrey Kravtsov, Astronomy & Astrophysics
- David Kutasov, Physics
- Emil J. Martinec, Physics
- Sidney Nagel, Physics
- Angela Olinto, Astronomy & Astrophysics
- Mark J. Oreglia, Physics
- Paolo Privitera, Astronomy & Astrophysics
- Robert Rosner, Astronomy & Astrophysics
- Savdeep Sethi, Physics
- Melvyn Shochet, Physics
- Dam Thanh Son, Physics
- Michael S. Turner, Astronomy & Astrophysics
- Carlos Wagner, Physics
- Yau W. Wah, Physics
- Scott P. Wakely, Physics
- Robert M. Wald, Physics
- Liantao Wang, Physics
- Paul B. Wiegmann, Physics

Part-Time Faculty

- Marcela Carena, Professor of Physics (part-time with Fermilab)
- Kwang-Je Kim, Professor of Physics (part-time with Argonne)
- Michael Pellin, Professor of Geophysical Sciences (part-time with Argonne)
- Guy Savard, Professor of Physics (part-time with Argonne)

Assistant Professors

- Luca Grandi, Physics
- David W. Miller, Physics
- David Schmitz, Physics
- Abigail Viereg, Physics

Emeritus Faculty

- Edward Anders, Chemistry
- Robert P. Geroch, Physics
- Roger H. Hildebrand, Astronomy & Astrophysics and Physics
- Edward James Kibblewhite, Astronomy & Astrophysics
- Donald Q. Lamb, Astronomy & Astrophysics
- Stephan Meyer, Astronomy & Astrophysics and Physics
- Frank S. Merritt, Physics
- Dietrich Müller, Physics
- Takeshi Oka, Astronomy & Astrophysics and Chemistry
- Eugene N. Parker, Astronomy & Astrophysics and Physics
- James E. Pilcher, Physics
- Jonathan L. Rosner, Physics
- John P. Schiffer, Physics
- James W. Truran, Astronomy & Astrophysics
- Donald G. York, Astronomy & Astrophysics

The Enrico Fermi Institute (<http://efi.uchicago.edu>) is a Physical Sciences unit of the University devoted to interdisciplinary research. It was founded shortly after the Second World War as the "Institute for Nuclear Studies" and is now named in honor of Enrico Fermi, who was one of the founders and a distinguished member of the Institute. All faculty members in the Institute hold joint appointments in one or more of the following departments: Physics (<http://physics.uchicago.edu>), Astronomy and Astrophysics (<http://astro.uchicago.edu>), Chemistry (<http://chemistry.uchicago.edu>), Geophysical Sciences (<http://geosci.uchicago.edu>), and Mathematics (<http://math.uchicago.edu>). Graduate students and postdoctoral scholars working with these faculty members also hold appointments and perform their research in the Institute.

The experimental disciplines currently being pursued include: high-energy particle physics, high-energy astrophysics, studies of particles and fields in the solar system and in space, infrared and optical astronomy, nuclear cosmo-chemistry, geochemistry, scanning electron and proton microscopy, and solar energy concentration. Theoretical studies include physics of elementary particles, quantum field theory, theoretical astrophysics and solar physics, plasma physics, cosmology, and general relativity.

The Enrico Fermi Institute provides engineering, technical and administrative support for the academic members and students. It includes a state-of-the-art electronics development group and facilities for mechanical design and construction, as well as computational equipment. Special resources include environmental test equipment, large-scale assembly facilities, computer aided design facilities, etc. This makes possible the design of complex instruments, and the in-house construction of detectors needed for experiments in the laboratory, with high-energy particle accelerators, on high-altitude balloons, and in space on satellites, deep space probes and the space shuttle. Most of the high-energy physics activity is focused on the Fermi National Accelerator Laboratory (<http://www.fnal.gov>) ("Fermilab"), one hour's driving distance from the campus, but experiments are also planned and prepared for the LEP/LHC facility at CERN in Geneva, Switzerland. Offices and laboratories for faculty, students, and staff are located in three adjacent buildings: the Physics Research Center (formerly Lab for Astrophysics and Space Research), the Accelerator Building, and the Eckhardt Research Center. The Eckhardt Center, which replaces the Research Institutes building that stood at the corner of Ellis and 57th Street for more than 50 years, opened in autumn 2015, and is the new home of the Astronomy and Astrophysics Center. The Kavli Institute for Cosmological Research now also occupies space in the ERC. The Physics Research Center, following a major renovation, is the new home of the Enrico Fermi Institute, the High-Energy/Particle Physics group, and the Kadanoff Center for Theoretical Physics.

The Enrico Fermi Institute annually awards Enrico Fermi Postdoctoral Fellowships and McCormick Postdoctoral Fellowships on a worldwide competitive basis to recent Ph.D. recipients in astronomy, chemistry, physics, or planetary sciences. The purpose of these fellowships is to enable young scientists to work either independently or in close association with present members of the Institute in areas of mutual interest. The intellectual life in the Institute is enhanced by frequent visitors, Visiting Scholars and Distinguished Visiting Professors. The Institute also sponsors a popular Saturday morning public lecture series in the autumn and spring quarters, The Arthur H. Compton Lectures.

Chicago Pile No. 1 (CP-1) was constructed in a makeshift laboratory under the grandstands of Stagg Field Stadium on the University of Chicago campus. It was here that Enrico Fermi and his colleagues achieved the first self-sustaining controlled release of nuclear energy on December 2, 1942. In 1965, the site was designated

a registered national historic landmark. The University celebrated the 75th-anniversary of this achievement in autumn 2017.



THE MORRIS FISHBEIN CENTER FOR THE HISTORY OF SCIENCE AND MEDICINE

Director

- Robert J. Richards

Faculty

- Lorraine Daston, Visiting Professor in Social Thought
- Arnold Ira Davidson, Philosophy
- James A. Evans, Sociology
- Jan Ellen Goldstein, History
- Adrian Johns, History
- Karin Knorr Cetina, Sociology
- Joseph Masco, Anthropology
- Karl Matlin, Department of Surgery
- Michael Rossi, History
- Stephen M. Stigler, Statistics

Emeritus Faculty

- William C. Wimsatt, Philosophy

The Morris Fishbein Center for the History of Science and Medicine was inaugurated at the University of Chicago in 1970. Its mission is to facilitate studies in the history of science and medicine by students, post doctoral scholars, and faculty with interest in this field. It lends particular support to Ph.D. students pursuing the history of science. It maintains close cooperative relations with the Department of History and the Committee on the Conceptual and Historical Studies of Science.

Graduate study in the history of science and medicine can lead to a Ph.D. degree through either the Department of History or the Committee on Conceptual and Historical Studies of Science. An extremely flexible program enables students to draw on a wide range of formal courses and seminars. At the same time it is possible to define programs of individual study that can accommodate the specific needs of persons with quite different backgrounds and interests. Arrangements are normally made with science departments when further technical training or supervision seems advisable. Additional training and supervision are available through the co-operation of historians of science and medicine at other universities throughout the nation.

Programs are designed for those who wish to investigate the sciences and medicine in their religious, philosophical, literary and technological contexts, and to relate them to broad questions of social structure and cultural change. Requirements are listed under the Department of History and the Committee on Conceptual and Historical Studies of Science. Additional information describing the program and the types of financial aid available to students may be obtained on the center's web site: <http://fishbein.uchicago.edu/> or by writing the Administrative Assistant of the Center, 1126 East 59th Street, Chicago, IL 60637 (bethcalderon@uchicago.edu).

COURSES

A listing of courses representative of those offered by members of the center is also available at the CHSS website. (<http://chss.uchicago.edu>)



THE JAMES FRANCK INSTITUTE

Director

- Steven J. Sibener, Chemistry

Professors

- Laurie J. Butler, Chemistry
- Cheng Chin, Physics
- Aaron Dinner, Chemistry
- Todd Dupont, Computer Science
- Greg Engel, Chemistry
- Margaret Gardel, Physics
- Philippe Guyot-Sionnest, Chemistry
- William T. M. Irvine, Physics
- Eric D. Isaacs, Physics
- Heinrich M. Jaeger, Physics
- Woowon Kang, Physics
- Ka Yee Lee, Chemistry
- Kathryn J. Levin, Physics
- Peter B. Littlewood, Physics
- David A. Mazziotti, Chemistry
- Sidney R. Nagel, Physics
- Jiwoong Park, Chemistry
- Norbert F. Scherer, Chemistry
- Steven J. Sibener, Chemistry
- Dam Thanh Son, Physics
- Dmitri Talapin, Chemistry
- Andrei Tokmakoff, Chemistry
- Vincenzo Vitelli, Physics
- Gregory A. Voth, Chemistry
- Paul Wiegmann, Physics
- Linda Young, Physics
- Luping Yu, Chemistry

Associate Professors

- Dion L. Heinz, Geophysical Sciences
- Michael Levin, Physics
- Shinsei Ryu, Physics
- Jonathan Weare, Statistics
- Wendy W. Zhang, Physics

Assistant Professors

- Arvind Murugan, Physics
- David Schuster, Physics
- Jonathan Simon, Physics
- Bozhi Tian, Chemistry
- Suriyanarayanan Vaikununtanathan, Chemistry

Emeritus Faculty

- R. Stephen Berry, Chemistry
- Karl F. Freed, Chemistry
- Donald H. Levy, Chemistry
- Gene F. Mazenko, Physics

- Stuart A. Rice, Chemistry
- Thomas A. Witten, Physics

ABOUT THE INSTITUTE

The James Franck Institute (<http://jfi.uchicago.edu>) is the premier institute in the U.S. for interdisciplinary research at the intersection of physics, chemistry and materials science. The Institute is home to scientists from condensed matter physics, physical chemistry, synthetic materials chemistry, atomic, molecular, and optical (AMO) physics, geophysics, and biophysics. Most of the faculty in the Institute are also associated with the University of Chicago Materials Research Science and Engineering Center (<http://mrsec.uchicago.edu>) (MRSEC), supported by the National Science Foundation.

The James Franck Institute was established after World War II as the Institute for the Study of Metals, with the present name being adopted in 1967 to reflect the emerging wider range of research activities covering the full spectrum of solids, liquids, and gases. Today, high-profile experimental and theoretical research in the Institute covers the areas of nanoscience, phase transitions, far-from-equilibrium phenomena, granular materials, low-temperature transport phenomena and superconductivity, ultracold atomic matter, quantum information, electronic structure, hydrodynamics, active matter, biophysics, and networks.

The Institute provides a stimulating environment for scientists of different disciplines to interact and aid each other's research. This facilitates pre- and postdoctoral researchers working jointly with mentors from different academic backgrounds. The intellectual environment in the Institute is further enriched by Senior Scientists, Senior Research Associates, Research Scientists and Visiting Scholars. Active colloquium and seminar series, as well as a more informal weekly "bag lunch", stimulate information exchange. Housed in the Gordon Center for Integrative Science building, the Institute provides office and state-of-the-art laboratory space which operates a number of specialized research facilities. These include a low-temperature (cryogenics) laboratory, materials preparation and spectroscopic facilities, scanning probe and electron microscopes, and extensive shop facilities.

In an age where much cutting-edge research lies at the boundaries between traditional disciplines, the James Franck Institute fosters creative interdisciplinary work at the forefront of science.



CENTER FOR THE STUDY OF GENDER AND SEXUALITY

Department Website: <http://gendersexuality.uchicago.edu>

The Center for the Study of Gender and Sexuality coordinates courses and activities that take up gender and sexuality as primary objects of study and categories of analysis. Courses engage these domains in many different ways, including: the study of gender and/or sexuality as historical practice; scientific concept and site of representation; in social movements such as feminism and gay and lesbian liberation; feminist and queer theory; family structures; the gendering of labor force participation; representations of women in literature and the visual arts; intersections of race and gender, transnationalism; and women's and men's participation in politics.

Our courses fall under traditional disciplinary rubrics, and use gender and sexuality as categories of analysis to track contemporary transformations in these and other domains of knowledge. We are interested in developing points of comparison within and among diverse areas of organized knowledge, not assuming that gender means the same thing in different disciplines, historical moments, epistemologies, or cultural frameworks. We are also dedicated to fostering debate about the construction and implications of categories of gender difference and sexual identity. Further, we promote engagement with ways that gender and sexuality give us insight into other modes of social organization and change, including transformations of economic and political systems; media public spheres; forms of repression and resistance; modes of production, knowledge and experience; and everyday life.

The Center for the Study of Gender and Sexuality confers no graduate degrees at this time. It does, however, offer a graduate certificate (<https://gendersexuality.uchicago.edu/academic/grad/certificate.shtml>) in Gender and Sexuality Studies for University of Chicago PhD students in any department or students in the Masters of Arts Program in Social Science (MAPSS). The Master of Arts program in the Humanities (MAPH) offers a Gender and Sexuality Option (<https://gendersexuality.uchicago.edu/academic/grad/maph.shtml>) that is equivalent to the certificate. We also foster graduate participation in the Center in several other ways. In addition to offering graduate courses, the Center sponsors lectures and symposia of interest to graduate students. It also encourages and supports graduate student initiatives for conferences and speakers, as well as student participation in the governance of the Center. Graduate students also have the opportunity to attend our bi-weekly Gender and Sexuality Studies Workshops (<https://voices.uchicago.edu/genderandsexuality/>) and/or the Gender and Sexuality Studies Working Group (<https://gendersexuality.uchicago.edu/events/workshops.shtml>). Each of these provides students with an opportunity to present their work and receive feedback from faculty (the workshop) or fellow students (the working group). We also host the The University of Chicago Law School Workshop on Regulating Family, Sex and Gender (<https://www.law.uchicago.edu/workshops/familysexgender>). Each year, the Center offers one or two dissertation completion fellowships as well as a number of residential fellowships (<https://gendersexuality.uchicago.edu/fellowships/fellowships.shtml>). In addition, we hold an annual call for graduate student teaching opportunities (<https://gendersexuality.uchicago.edu/fellowships/teaching.shtml>), including co-teaching our theories or 'problems' courses or interning in our Gender and Sexuality in World Civilizations sequence. Students who have been co-teachers can also apply to teach an undergraduate level self-designed, free-standing course.

The affiliated faculty (listed below) draw from departments, committees, and professional schools around the University. Members of the faculty support interdisciplinary work in gender and sexuality studies, even when their major course offerings are not directly gender or sexuality studies courses. Faculty also regularly direct master's theses in the field of gender and sexuality studies within the MAPSS and MAPH programs as well as Ph.D. dissertations in their own departments. Students interested in gender and/or sexuality studies who wish to earn advanced degrees leading to careers in research and teaching should apply for admission to the department in which their chief interest falls.

Please contact Bonnie Kanter, Student Affairs Administrator at the Center for the Study of Gender and Sexuality (773-702-2365; bonniek@uchicago.edu) for specific information regarding courses and programs. More information can also be found on the Center's website at <http://gendersexuality.uchicago.edu/>.

Faculty Director

- Kristen Schilt - Sociology

Staff

- Gina Olson, Associate Director
- Tate Brazas, Program Coordinator
- Bonnie Kanter, Student Affairs Administrator

Affiliated Faculty (list by department available here (<https://gendersexuality.uchicago.edu/research/faculty.shtml>))

- Margaret Andrews - English
- Niall Atkinson - Art History
- Leora Auslander - History
- Shadi Bartsch-Zimmer - Classics
- Orit Bashkin - Near East Languages & Civilizations
- Kathleen Belew - History
- Lauren G. Berlant - English Language & Literature
- Dominique Blüher - Cinema and Media Studies
- Alida Bouris - Social Service Administration
- Larissa Brewer-Garcia - Romance Languages and Literatures
- P. Sean Brotherton - Anthropology
- Adrienne Brown - English Language & Literature
- Bill Brown - English Language & Literature
- Susan L. Burns - History
- Emily Buss - Law
- Margaret Carlyle - The Institute on the Formation of Knowledge
- E. Summerson Carr - Social Service Administration
- Mary Anne Case - Law
- Kyeong Hee Choi - East Asian Languages & Civilizations
- Elisabeth Clemens - Sociology
- Cathy Cohen - Political Science
- Jennifer Cole - Comparative Human Development
- Heidi Coleman - Theater and Performance Studies
- Patrick Crowley - Art History
- Kristine Culp - Divinity
- Jane Dailey - History
- Shannon Dawdy - Anthropology
- Daisy Delogu - Romance Languages & Literature
- Wendy Doniger - Divinity
- Alreza Doostdar - Divinity
- Sascha Ebeling - Near East Languages & Civilizations
- Jacob Eyferth - East Asian Languages & Civilizations
- Gina Fedock - Social Service Administration
- Martha Feldman - Music
- Claudia M. Flores - Law
- Chelsea Foxwell - Art History
- Sarah Fredericks - Divinity
- Michelle Friedner - Comparative Human Development
- Susan Gal - Anthropology
- Yana Gallen - Public Policy
- Laura Gandolfi - Romance Languages and Literatures
- Edgar Garcia - English
- Anastasia Giannakidou - Linguistics
- Melissa Gilliam - Obstetrics and Gynecology
- Jan Ellen Goldstein - History
- Alessandra González - Economics
- Ramón Gutiérrez - History
- Elaine Hadley - English Language & Literature
- Chenwa Hayek - Near Eastern Languages and Civilizations
- James Heckman - Economics
- Julia Henly - Social Services Administration
- Angie Heo - Divinity
- Kimberly Kay Hoang - Sociology
- Judy Hoffman - Visual Arts

- Patrick Jagoda - English Language & Literature
- Alison James - Romance Languages & Literature
- Waldo Johnson - Social Services Administration
- Demetra Kasimis - Political Science
- Kara Keeling - Cinema and Media Studies
- Micere Keels - Comparative Human Development
- Robert L. Kendrick - Music
- Karen Kim - Medicine
- Janice Knight - English Language & Literature
- Aden Kumler - Art History
- Laura Letinsky - Visual Arts
- David Levin - Germanic Studies
- Amy Lippert - History
- Jonathan Lyon - History
- Agnes Lugo Ortiz - Romance Languages & Literatures
- Zhiying Ma - Social Service Administration
- Armando Maggi - Romance Languages & Literature
- Rochona Majumdar - South Asian Languages & Civilizations
- Jeanne Marsh - Social Service Administration
- Jill Mateo - Comparative Human Development
- Martha K. McClintock - Psychology
- Josephine McDonagh - English
- Françoise Meltzer - Romance Languages & Literatures
- J. Mark Miller - English Language & Literature
- Anna Mueller, Comparative Human Development
- Deborah Nelson - English Language & Literature
- Sianne Ngai - English
- Larry Norman - Romance Languages & Literatures
- Martha C. Nussbaum - Law
- Julie Orlemanski - English
- Emily Lynn Osborn - History
- Ada Palmer - History
- Kaneesha Cherelle Parsard - English
- Johanna Ransmeier - History
- Melissa Roderick - Social Service Administration
- Danielle Roper - Romance Languages and Literatures
- Martha Roth - Near Eastern Languages & Civilizations
- Lisa C. Ruddick - English Language & Literature
- Sophie Salvo - Germanic Studies
- Zachary Samalin - English
- Jennifer Scappettone - English Language & Literature
- Kristen Schilt - Sociology
- Anna Schultz - Music
- Bozena Shallcross - Slavic Languages & Literatures
- Richard Shweder - Comparative Human Development
- Michael Silverstein - Anthropology
- William Sites - Social Service Administration
- C. Riley Snorton - English/Gender Studies
- Xi Song - Sociology
- Amy Dru Stanley - History
- Justin Steinberg - Romance Languages & Literature
- Malyne Sternstein - Slavic Languages & Literatures
- Sonali Thakkar - English Language & Literature
- Anna Elena Torres - Comparative Literature

- Jenny Trinitapoli - Sociology
- Candace A. Vogler - Philosophy
- Linda Waite - Sociology
- Martha Ward - Art History
- Lisa Wedeen - Political Science
- Laura Weinrib - Law
- Jennifer Wild - Cinema & Media Studies
- David Wray - Comparative Literature
- Wu Hung - Art History
- Tara Zahra - History
- Judith Zeitlin - East Asian Languages & Civilizations
- Linda Zerilli - Political Science



POZEN FAMILY CENTER FOR HUMAN RIGHTS

The Pozen Family Center for Human Rights (Pozen Center) at the University of Chicago supports innovative interdisciplinary teaching and research initiatives that critically explore the theory and practice of global human rights. This includes:

- **Rigorous liberal arts, graduate, and professional school curricula** that combine foundational research with practice-oriented training, including a Study Abroad program in Vienna, Austria, a two quarter Civilizations Core sequence, and a Minor in the College.
- **Summer student internships** with non-governmental organizations, government agencies, and international human rights bodies in the U.S. and across the world.
- **Research that brings together faculty and students from across the disciplinary divisions and professional schools** on issues such as health and human rights, human rights at home, arts and advocacy, migration and human rights, and human rights history.
- **Projects and events to enhance the university's engagement with local, regional, national, and international human rights** scholars, practitioners, and public officials.

GRADUATE STUDENT OPPORTUNITIES

Human Rights Workshop (<https://humanrights.uchicago.edu/workshop>): brings together graduate students and faculty to discuss works in progress from a variety of disciplines.

Graduate Teaching Opportunities (<https://pozen.herokuapp.com/graduateteaching>): teaching assistantships, internships in the Civilizations core, lectureships for self-designed courses, and co-teaching with faculty.

Graduate Certificate in Human Rights Studies (<https://pozen.herokuapp.com/about>): available to doctoral students with approved human rights coursework and research.

Ignacio Martín-Baró Human Rights Essay Competition (<https://pozen.herokuapp.com/awards>): cash prize of \$500 awarded to the best essay in three student categories (College, Master's/Professional, and Doctoral).

Pozen Research Grants for PhD Students (<https://pozen.herokuapp.com/awards/researchgrants>): grants of up to \$5,000 to support both pre-dissertation and dissertation research projects, awarded to PhD students in the Humanities and Social Sciences.

Pozen Human Rights Dissertation Completion Fellowship (<https://pozen.herokuapp.com/awards/dissertationfellowship>): one year-long fellowship awarded to a doctoral student in the Humanities or Social Sciences whose work makes an important contribution to human rights scholarship.

CONTACT

Mark Philip Bradley (History) (mbradley@uchicago.edu)
Faculty Director

Susan Gzesh (sgzesh@uchicago.edu)

Executive Director

Pozen Center website: <https://humanrights.uchicago.edu/>



THE CENTER FOR INTERNATIONAL SOCIAL SCIENCE RESEARCH

Director

- Jenny Trinitapoli (Sociology)

Faculty Board

- Emily Lynn Osborn (History)
- Paul Poast (Political Science)
- Alan Kolata (Anthropology)

Center Supervisor

- Teresa Rodriguez

The Center for International Social Science Research (CISSR) is an eclectic intellectual community devoted to nourishing empirical international research across the social sciences. We seek to spark and sustain critical discussions that traverse disciplinary, methodological, and geographic boundaries. CISSR supports work that informs and transforms debates on global issues within the academy and beyond.

To promote the pursuit of social science and the study of topics that are global in nature at the University, CISSR sponsors a Research Fellowships program, annual book workshops, and other research activities.

- The CISSR Faculty Research Fellows Program is designed to bring social scientists who study different parts of the world using different methods and theoretical approaches together in a common space. Rooted in the belief that the best research is produced through critical and constructive conversations in an inclusive community of global scholars, CISSR activities allow fellows to share their findings, while also exposing them to new perspectives and localities. Through sustained interactions with their peers, and with CISSR financial and administrative support, fellows can refine their research and amplify its impact.
- CISSR provides faculty with book support through workshops and monograph enhancement awards, which are designed to help faculty produce the highest quality manuscripts possible.
- CISSR supports graduate research through Dissertation Support Grants and the Lloyd and Susanne Rudolph Field Research Awards.

CISSR succeeds and builds upon the legacy of the Center for International Studies (CIS). Established fifty years ago, CIS helped catalyze the integration of international perspectives into the University's graduate and undergraduate programs. The successes of those efforts are visible today in many curricular and pedagogic programs, from the strength of our library collections and diversity of our language offerings to the richness of undergraduate opportunities such as the Program on the Global Environment, the International Studies major, and the breadth of Civilizations Studies options, to name a few.



JOYCE Z. AND JACOB GREENBERG CENTER FOR JEWISH STUDIES

Director

- Na'ama Rokem, Near Eastern Languages & Civilizations and Comparative Literature

Professors

- Leora Auslander, History
- Orit Bashkin, Near Eastern Languages & Civilizations
- Philip Bohlman, Music
- Arnold I. Davidson, Philosophy, Divinity, and Comparative Literature
- Michael Fishbane, Divinity
- Cornell Fleischer, Near Eastern Languages & Civilizations
- Hakan Karateke, Near Eastern Languages & Civilizations
- David Levin, Germanic Studies
- Françoise Meltzer, Romance Languages and Literatures, Comparative Literature, and Divinity
- David Nirenberg, Social Thought and History
- Martha Nussbaum, Law, Philosophy, and Divinity
- Dennis Pardee, Near Eastern Languages & Civilizations
- James Robinson, Divinity
- Martha Roth, Oriental Institute and Near Eastern Languages & Civilizations
- Eric Santner, Germanic Studies
- David Schloen, Near Eastern Languages & Civilizations
- Božena Shallcross, Slavic Languages and Literatures
- Tara Zahra, History
- Laurie Zoloth, Divinity

Associate Professors

- Simeon Chavel, Divinity
- Sarah Hammerschlag, Divinity
- Faith Hillis, History
- William Nickell, Slavic Languages and Literatures
- Richard Payne, Near Eastern Languages & Civilizations and History
- Na'ama Rokem, Near Eastern Languages & Civilizations
- Anna Schultz, Music
- Jeffrey Stackert, Divinity
- Sofia Torallas-Tovar, Classics and Near Eastern Languages & Civilizations

Assistant Professors

- Rachel DeWoskin, Creative Writing
- Maria Anna Mariani, Romance Languages and Literatures
- Raoul Moati, Philosophy
- Sonali Thakkar, English Language and Literature
- Anna Torres, Comparative Literature

Senior Lecturers

- Ari Almog, Near Eastern Languages & Civilizations and Comparative Literature

Lecturers

- Jessica Kirzane, Germanic Studies

University Associate Members

- Stuart Creason, Near Eastern Languages & Civilizations
- Anne Knafl, Bibliographer for Religion and Philosophy
- Albert Madovsky, Booth School of Business
- Gil Stein, Near Eastern Languages & Civilizations

Emeritus Members

- Howard I. Aronson, Slavic Languages & Literatures
- Ralph Austen, History
- Michael Geyer, History
- Samuel Jaffe, Germanic Studies
- Ralph Lerner, Social Thought
- Paul Mendes-Flohr, Divinity
- Judith Nadler, Library
- Shulamit Ran, Music
- Jerrold Sadock, Linguistics
- Josef Stern, Philosophy
- Bernard Wasserstein, History

Jewish Studies has been an important field of research at The University of Chicago since the days when its first president, the Biblical scholar William Rainey Harper, oversaw the beginnings of programs in Bible and Ancient Near Eastern Civilizations. In addition to Professor Harper, Rabbi Emil Gustav Hirsch taught Jewish Studies from the very founding of the university. In 1892 he was appointed one of the first four full professors at the fledgling university, occupying a chair in “Rabbinical Literature and Philosophy.” He held the chair until his death in 1923. In fact, the University of Chicago was one of the first universities in the world to have a full-fledged program in Jewish Studies. A few decades later, these early initiatives received a huge institutional boost with the founding of the Oriental Institute, which remains one of the preeminent centers for the study of ancient Near Eastern language, civilization, and archeology. But the flourishing of Jewish Studies over the years at Chicago has also been sustained by appointments in a wide range of departments: professorships of Jewish Hellenism in Classics, Medieval Jewish Philosophy in Philosophy, Jewish Social and Economic History in History, to name only a few. During the past decade, the University has appointed eminent scholars in the study of Hebrew Bible, Midrash, Jewish Medieval Studies, Hebrew Literature, American Jewish Literature, and German Jewish Culture. Working together, they have created one of the most modern comprehensive, distinguished, and interdisciplinary programs in Jewish Studies available at any American university. Students can make full use of the resources in Jewish Studies available through the Divinity School, the departments of Germanic Studies, History, Linguistics, Philosophy, Music, Near Eastern Languages & Literature, and the Oriental Institute.

ACADEMIC OPPORTUNITIES

Graduate students in Jewish Studies at the University of Chicago earn their degrees in a department, school, or committee, while supplementing their disciplinary training through participation in the inter-disciplinary activities and scholarship opportunities offered by the Center. Students who wish to pursue graduate work in an area of Jewish Studies should apply to the appropriate department, school, or committee, and not to the Greenberg Center for Jewish Studies. The following departments and schools offer specialized graduate study in the following tracks or programs of Jewish Studies:

THE DIVINITY SCHOOL

- Biblical Studies
 - Hebrew Bible and the Ancient Near East
 - Hebrew Bible and Early Jewish Literature
 - Jewish and Christian Bible
- History of Judaism
- Rabbinic literature, Midrash, and mysticism
- Medieval Jewish philosophy, thought, and literature (including Islamic philosophy)
- Modern Jewish thought and intellectual history

For information about the Divinity School please visit <http://divinity.uchicago.edu>.

DEPARTMENT OF GERMANIC STUDIES

- German-Jewish Intellectual History
- Yiddish Language, Literature, and Culture

For information about the Department of Germanic Studies please visit <http://german.uchicago.edu>.

DEPARTMENT OF HISTORY

- Modern Jewish History

For information about the Department of History please visit <http://history.uchicago.edu>.

DEPARTMENT OF NEAR EASTERN LANGUAGES AND CIVILIZATIONS (NELC)

- Near Eastern Judaica (including Modern Hebrew Studies and Hebrew Studies)
- Northwest Semitic Philology (including Hebrew, Phoenician-Punic, Ugaritic, Aramaic, and Syriac)
- Ancient Near Eastern History (including the ancient history of Syria-Palestine)
- Near Eastern Art and Archaeology
- Modern Hebrew Language and Literature
- Islamic History and Civilization (including the study of Jews in the Islamic world)
- Islamic Thought (including the interaction between Jewish and Islamic thought)

For more information about NELC please visit <http://nelc.uchicago.edu/>.

In addition, students and faculty work in specific areas of Jewish Studies in the Departments of Music, Philosophy, Political Science, and Slavic Languages and Literatures.

The Greenberg Center for Jewish Studies seeks to provide a common space in which graduate students of all disciplines working in the diverse areas of Jewish Studies can participate in a rich and lively intellectual community. We plan inter-disciplinary graduate courses, lectures and conferences, and graduate workshops and seminars for faculty and students. The faculty of the Center guide students to the multiple opportunities for the study of Judaism and Jewish culture available across the university. In addition, the Center awards research and travel grants and dissertation year fellowships to students in any department and school working on topics related to Jewish Studies. Prospective and current students should keep in mind that, given the deeply ingrained interdisciplinary culture of the University of Chicago, their opportunities for study and research can range across the entire faculty in addition to the resources of their home department or unit. Although each program has its own requirements, students typically take courses and seminars in departments other than their own, and dissertation committees often include faculty from multiple departments, thus reflecting the interdisciplinary nature of graduate study at this university.

JEWISH STUDIES & HEBREW BIBLE WORKSHOPS

Bringing together faculty and students from across various disciplines, the Jewish Studies and the Hebrew Bible workshops seek to provide a forum for vibrant discourse and critical reflection on work and topics included in these broad fields of Judaica. From Jewish language, literature, and music to religion and philosophy, these workshops look to engage students and faculty interested in Jewish studies while stretching them to think beyond the strictures that currently typify their sub-disciplines.

RESEARCH AND LIBRARY RESOURCES

The University of Chicago library system serves the research and study interests of faculty and students and houses a bound volume and microfilm collection of more than 5 million volumes; a manuscript and archival collection of over 7 million pieces; serial holdings of some 95,000 titles; and a photographic study collection of visual art of more than 500,000 pieces. The physical facilities of the library system consist of the Joseph Regenstein Graduate Research Library, supporting research activities and graduate programs in the humanities and social sciences; Harper Memorial Library, serving primarily students in the College; and six professional and departmental libraries. Regenstein Library provides the central location for research materials in the humanities, the social sciences, and the ancient and modern languages, an array of resources numbering more than 3 million volumes.

Regenstein Library contains the Department of Special Collections, a major repository of archival and rare published materials. Regenstein also houses the Middle East Collection, with rich holdings in Assyriology and Egyptology. Of particular interest to students in Jewish Studies is the unique Ludwig Rosenberger Collection, which contains thousands of items in German Judaica. In addition, the Oriental Institute maintains extensive holdings in ancient Near Eastern and biblical studies and archaeology.

Library resources are not limited to the University community. The libraries of the cluster of five theological schools in the University neighborhood enrich the available library facilities by more than 1,000,000 volumes. The libraries of the Art Institute and the Chicago Historical Society also contain extensive resources for historical study. The Newberry Library, located on Chicago's Near North Side, is a world-renowned research collection of some 1,000,000 titles and 5,000,000 manuscripts in the humanities, chiefly in history, literature, music, and philosophy, with special strengths in European, American, and Latin American history and literature.

STUDENT FUNDING AND OPPORTUNITIES

DISSERTATION YEAR FELLOWSHIP

The Greenberg Center for Jewish Studies periodically offers Dissertation Year Fellowship(s) for students in all Divisions and Schools at the University of Chicago pursuing projects on any topic relating to Jewish Studies, including (but not restricted to) study of the history, culture, and thought of the Jews, classical and modern Jewish texts, and languages of the Jews (e.g., biblical through modern Hebrew, Yiddish).

TRAVEL AND RESEARCH GRANTS

The Greenberg Center for Jewish Studies awards grants to students to support their work in any area of Jewish Studies. Eligible expenses include (1) research travel and materials, and (2) advanced foreign language study in an accredited program (beyond the level offered at the University). Because funds are currently limited, priority will be given to proposals in the order listed. Awards are also available for conference travel and fees when a paper has been accepted for presentation. Students may combine their awards with funding from other sources.

For additional information about the Jewish Studies program, please see ccjs.uchicago.edu



CENTER FOR LATIN AMERICAN STUDIES

Director

- Brodwyn Fischer, Department of History

Affiliated Faculty, Lecturers, and Postdocs

- Michael Albertus - Department of Political Science
- Fernando Alvarez - Department of Economics
- Jessica Swanston Baker - Department of Music
- María Angélica Bautista - Harris School of Public Policy
- Natalia Bermudez - Department of Linguistics
- Christopher Blattman - Harris School of Public Policy
- Dain Borges - Department of History
- Larissa Brewer-García - Department of Romance Languages and Literatures
- Claudia Brittenham - Department of Art History
- P. Sean Brotherton - Department of Anthropology
- Chad Broughton - Department of Public Policy Studies (College)
- Leonardo Bursztyn - Department of Economics
- Miguel Caballero Vazquez - Humanities
- Honey Crawford - Theater and Performance Studies
- Shannon Dawdy - Department of Anthropology
- Frederick A. de Armas - Department of Romance Languages and Literatures
- Daniel Desormeaux - Department of Romance Languages and Literatures
- Oeindrila Dube - Harris School of Public Policy
- René D. Flores - Department of Sociology
- Rachel Galvin - Department of English
- Angela García - School of Social Service Administration
- Yanilda María González - School of Social Service Administration
- Stefanie Graeter - CLAS Lecturer
- Ramón Gutiérrez - Department of History
- Susan R. Gzesh - Department of Human Rights
- James Heckman - Department of Economics
- Thomas Holt - Department of History
- Dwight Hopkins - Divinity School
- Ryan Jobson - Department of Anthropology
- Sarah Jessica Johnson - Department of English
- Robert L. Kendrick - Department of Music
- Alan Kolata - Department of Anthropology
- Emilio H. Kourí - Department of History
- Ali Kulez - Collegiate Assistant Professor, Humanities
- Benjamin Lessing - Department of Political Science
- Ana Maria Lima - Department of Romance Languages and Literatures
- Victor Lima - Department of Economics
- Maria Cecilia Lozada - Department of Romance Languages and Literatures
- John A. Lucy - Department of Comparative Human Development
- Agnes Lugo Ortiz - Department of Romance Languages and Literatures
- Luis Martinez - Harris School of Public Policy
- Miguel Martínez - Department of Romance Languages and Literatures
- Alicia Menendez - Harris School of Public Policy
- Salikoko Mufwene - Department of Linguistics
- Angela V. Olinto - Department of Astronomy and Astrophysics
- Stephan Palmié - Department of Anthropology
- Kaneesha Parsard - Department of English Language and Literature

- Mercedes Pascual - Department of Ecology and Evolution
- James Robinson - Harris School for Public Policy Studies
- Danielle Roper - Department of Romance Languages and Literatures
- Mario Santana - Department of Romance Languages and Literatures
- Victoria Saramago - Department of Romance Languages and Literatures
- Paul Sereno - Department of Organismal Biology & Anatomy
- Salomé Aguilera Skvirsky - Department of Cinema and Media Studies
- Susan Stokes - Department of Political Science
- Megan Sullivan - Department of Art History
- Mauricio Tenorio - Department of History
- Mareike Winchell - Department of Anthropology
- Austin L. Wright - Harris School of Public Policy
- Alan Zarychta - School of Social Service Administration
- Erik Zyman - Department of Linguistics

OVERVIEW

Established in 1968, the University of Chicago Center for Latin American Studies (CLAS) brings together faculty and students across the University in interdisciplinary and interdivisional research, teaching, scholarly events, and public engagement related to this vital region of the world.

CLAS coordinates workshops, seminars and conferences; hosts visiting scholars; and provides financial support for preliminary student field research, library acquisitions, and the development of curricular materials in the less commonly taught languages of the region. A full description of Latin American Studies programming is available at the Center's website.

The Center for Latin American Studies administers both undergraduate and graduate degree programs including a BA major program (<https://clas.uchicago.edu/academic-programs/BA-programs>), a BA minor program (<https://clas.uchicago.edu/academic-programs/BA-programs>), a BA to MA program (<https://clas.uchicago.edu/academic-programs/BA-programs/BAMA-program>), a Master of Arts program (<https://clas.uchicago.edu/academic-programs/MA-programs>), a Joint MA/MBA (<https://clas.uchicago.edu/academic-programs/MA-programs/dual-degree-programs>) degree with the Booth School of Business and a dual LACS MA/MA in Public Policy with the Harris School of Public Policy (<https://clas.uchicago.edu/academic-programs/MA-programs/dual-degree-programs>).

Staff

Natalie Arsenault | Associate Director
 e-mail: ncarsenault@uchicago.edu
 phone: 773.702.9741

Jamie Gentry | Student Affairs Coordinator (Degree Program Adviser), Office Manager
 phone: 773.702.8420

Department Website: <http://clas.uchicago.edu/>



CENTER FOR MIDDLE EASTERN STUDIES

Director

- A. Holly Shissler

Deputy Director

- Orit Bashkin

Deputy Director for Academic Programs

- Paul E. Walker

Associate Director

- Thomas E.R. Maguire

Project Assistant

- Benjamin Chametzky

Outreach Coordinator and Director of the Middle East Education Initiative

- Alexander Barna

The Middle Eastern Studies faculty are listed at <http://cmes.uchicago.edu/>.

The Center for Middle Eastern Studies offers an interdisciplinary Master of Arts program designed for students who wish to use their knowledge of the Middle East in careers other than university teaching and research. The program is also suitable for students considering an academic career who have not had the appropriate academic background for direct entrance into a doctoral program. Language and area studies preparation may be supplemented by relevant course work in a professional school or department. Students may be admitted to the Master of Arts program in either the Division of the Social Sciences or the Humanities and will receive the degree from the division through which they have registered. Students with significant previous training in Middle Eastern or Islamic studies who wish to earn a doctoral degree leading to careers in research and college or university teaching should apply for admission directly to one of the graduate doctoral departments or committees of the University.

There are two tracks—modern and ancient—for the MA program in Middle Eastern Studies. The modern program covers the time period from the rise of Islam until the present. The ancient track, offered in collaboration with the faculty of the Department of Near Eastern Languages and Civilizations, focuses on the cultures and languages of the ancient Near East. The application process, degree requirements, and the rules and conditions for financial aid are similar for both programs.

ADMISSION

Applicants for the Master of Arts in Middle Eastern Studies are expected to meet the graduate admission requirements of the University and of the division to which they apply. In addition, applicants to the Middle Eastern Studies program must submit an academic writing sample. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Students must enter the program in the autumn quarter. Although the program is designed for full time students, applications from those who can attend only on a part time basis will be considered.

HOW TO APPLY THROUGH THE DIVISION OF HUMANITIES

The application process for admission and financial aid for all Humanities graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (<http://humanities.uchicago.edu/students/admissions/apply-now>).

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

HOW TO APPLY THROUGH THE DIVISION OF THE SOCIAL SCIENCES

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (<https://socialsciences.uchicago.edu/admissions/apply>).

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

JOINT PROGRAM IN BUSINESS ADMINISTRATION AND MIDDLE EASTERN STUDIES

Benefiting from the combined strengths of the Center and the Graduate School of Business (<http://www.chicagobooth.edu>) -- one of the finest business schools in the country -- this three-year program helps students gain a firm grasp of the languages, history, and social institutions of the Middle East while acquiring the basic skills for careers in international business. To apply for the joint M.A. in Middle Eastern Studies/Masters in Business Administration, please click here (<http://www.chicagobooth.edu/programs/full-time/admissions>).

JOINT PROGRAM IN PUBLIC POLICY AND MIDDLE EASTERN STUDIES

This dual degree program addresses the needs of students wishing to acquire a solid background in modern Middle Eastern languages, history, and civilization while developing their abilities in policy analysis in preparation for professional careers in scholarly, educational, governmental, non-governmental, and business environments in the United States and abroad. This program requires approximately 5 quarters of study in the Center for Middle Eastern Studies and 4 quarters of study in the Harris School of Public Policy (<http://harris.uchicago.edu/admissions-and-aid>). Applicants for the joint program must apply to both the Harris School (<https://grad-application.uchicago.edu>) and the Division of the Social Sciences (<https://socialsciences.uchicago.edu/admissions/apply>) separately.

PROGRAM REQUIREMENTS

The requirements are satisfactory completion of:

- Six quarters of a Middle Eastern (ancient or modern) language (through at least two year proficiency);
- One quarter core colloquium: Approaches to the Study of the Middle East, or Approaches to the Study of the Ancient Near East;
- Three quarters of an approved integrated Middle Eastern survey course.
- Seven courses in relevant electives;
- One course in thesis preparation, or reading and research;
- A master's thesis.

Only courses taken for a quality grade count toward fulfilling the requirements. No P or R grades will be accepted.

Elective courses may concentrate on one area or explore several of the fields of ancient or modern Middle Eastern studies such as, for example, Archaeology, Cuneiform Studies, Egyptology, Semitic linguistics, Arabic, Persian or Turkish literature, as well as related disciplines such as Art History, Anthropology, Classics, History, Linguistics, Political Science and Sociology.

LANGUAGE

Placement interviews will be given so that entering students may register for courses at the appropriate level of instruction. The languages offered include: Akkadian, Arabic, Armenian, Egyptian (Ancient), Hebrew (classical and modern), Hittite, Persian, Sumerian, Turkish, and Uzbek.

CORE COURSES

For the modern track MA, all students are required to take the core colloquium Approaches to the Study of Middle East (CMES 30001). Students must enroll in one of the following three quarter sequences: Islamic History & Society (NEHC 31000, 31100, 31200/HIST 35704, 35804, 35904), or Islamic Thought & Literature (NEHC 30601, 30602, 30603/ SOSC 22000, 22100, 2220). For the ancient track MA, students are required to take the core colloquium Approaches to the Study of the Ancient Near East and must enroll in the three quarter sequence: Ancient Near Eastern History & Society (NEHC 30001, 30002, 30003).

MASTER'S THESIS

Students are required to submit a master's thesis that should deal with a problem relevant to the student's intended career and should give evidence of the specialized disciplinary aspects of his or her training. The student's program adviser and a faculty member with special interest in the subject of the paper will guide the research and writing of the paper and judge whether it exhibits proof of competence in the field. During the writing of the paper, the student will register for a thesis preparation or reading and research course. The thesis title will be listed on the student's transcript.



NORC

NORC AT THE UNIVERSITY OF CHICAGO

NORC at the University of Chicago is a non-partisan, objective research institution that delivers reliable data and rigorous analysis to guide critical programmatic, business, and policy decisions. Since 1941, NORC has conducted groundbreaking studies, created and applied innovative methods and tools, and advanced principles of scientific integrity and collaboration. Today, government, corporate, and nonprofit clients around the world partner with NORC to transform increasingly complex information into useful knowledge. NORC conducts research in five main areas: Economics, Markets, and the Workforce; Education, Training, and Learning; Global Development; Health and Well-Being; and Society, Media, and Public Affairs. Headquartered in downtown Chicago, NORC works in over 40 countries around the world, with additional offices on the University of Chicago campus, the DC metro area, Atlanta, Boston, San Francisco, Silicon Valley, Albuquerque, and Wichita. NORC's long tradition of rigorous, transparent, and objective research has been fostered and reinforced by its long-standing relationship with the University of Chicago. As a result of this inspired affiliation, the reputations of each institution, as well as the quality of knowledge they produce, has been greatly enhanced.

NORC has pioneered methodological innovations which advance the science of survey research and maintains an active presence in the research and teaching life of the Divisions of the Social Sciences and Biological Sciences, as well as the Pritzker School of Medicine, the Harris Graduate School of Public Policy Studies, and the School of Social Service Administration. NORC conducts nationwide surveys that are used as data resources for social scientists and policy analysts throughout the world. It employs a field staff of over 1,000 trained interviewers and conducts more than 30 surveys each year on such topics as the costs and practices of health care, environmental studies, substance abuse, education, labor, family, and the attitudes of Americans. NORC has been conducting the General Social Survey (GSS) since 1972; the GSS is the most frequently used dataset in sociology aside from the U.S. Census.

In addition to its core research areas, NORC also maintains the Academic Research Centers (ARC) which occupy office space in the Harris School building on the University of Chicago campus. The ARC provides a collegial, interdisciplinary environment in which University of Chicago faculty can conduct empirical social science research in collaboration with a team of NORC researchers committed to developing collaborations across departments and divisions at the University. While there are currently four research centers within the ARC, faculty and researchers in this department have developed a wide range of funded research projects that have evolved well beyond the purview of these specific content area centers and now constitute the larger portion of the department's work. The four centers are:

- **The Aging Action Research Center** functions as a substantive hub for research on aging within and outside of NORC, acting as a knowledge broker for the development of design-based research, dissemination to stakeholders, innovation in survey research methods, and management of grant programs.
- **The Center for the Study of Politics and Society** focuses on the investigation of societal change. The National Data Program for the Social Sciences is the CSPS's largest component and its major activity is the regular collection and distribution of the General Social Survey and its allied surveys in the International Social Survey Program.
- **The Early Childhood Research and Practice Collaborative** fosters research-practice partnerships that apply rigorous research/evaluation methods and the latest development science to address pressing needs and challenges faced by early childhood educators in formal and informal learning environments, policymakers, and investigators.
- **The Ogburn-Stouffer Center for the Study of Social Organizations** promotes innovative, theoretically-informed, empirical research on population, political attitudes and decision making, community, health, social inequality, and social structure. A core mission is to promote the training of graduate students in the social sciences through involvement in all phases of large-scale survey research from development to execution and analysis.

University students participate in NORC's activities in several ways. NORC offers a dynamic hands-on summer intern program open to graduate students. NORC has given countless graduate students experience in real-world social science research. More than 100 UChicago students have worked as GRAs (Graduate Research Assistants) during the last six years. UChicago, NORC, and ARC are committed to employing and training university students as a critical part of their professional development. NORC researchers who also hold University faculty positions often become lifelong mentors to these students. Some graduate students receive support through NORC for their own research in the writing of dissertations; many attend conferences and weekly workshops that are sponsored by and held at NORC. NORC employs many University graduates at professional career levels.



COMMITTEE ON SOUTHERN ASIAN STUDIES/ SOUTH ASIA LANGUAGE & AREA CENTER

Chair, Committee on Southern Asian Studies

- Daniel A. Arnold, Divinity

Associate Director, Committee on Southern Asian Studies

- Irving Birkner

Members: Faculty and Emeritus Faculty

- Anjali Adukia, Harris School of Public Policy
- Muzaffar Alam, South Asian Languages & Civilizations
- E. Annamalai, South Asian Languages & Civilizations
- Daniel A. Arnold, Divinity School
- Kali Bahl, Linguistics, South Asian Languages & Civilizations
- Elena Bashir, South Asian Languages & Civilizations
- Mandira Bhaduri, South Asian Languages & Civilizations
- Philip V. Bohlman, Music
- Mark Bradley, History
- Dipesh Chakrabarty, South Asian Languages & Civilizations
- Elizabeth Chatterjee, Political Science
- Whitney Cox, South Asian Languages & Civilizations
- Thibaut d'Hubert, South Asian Languages & Civilizations
- Wendy Doniger, Divinity School
- Sascha Ebeling, South Asian Languages & Civilizations
- Philip Engblom, South Asian Languages & Civilizations
- Michele Friedner, Sociology
- Marco Garrido, Sociology
- Jason Grunebaum, South Asian Languages & Civilizations
- Kimberly Hoang, Sociology
- Ronald B. Inden, History
- Amir Jina, Harris School of Public Policy
- Matthew Kapstein, Divinity: History of Religions
- John D. Kelly, Anthropology
- Alan Kolata, Anthropology
- Darryl Li, Anthropology
- Rochona Majumdar, South Asia Languages & Civilizations
- Anup Malani, Law School
- McKim Marriott, Anthropology
- Colin Masica, Linguistics
- William Mazzarella, Anthropology
- C. M. Naim, South Asian Languages & Civilizations
- Constantine V. Nakassis, Anthropology
- Karma Ngodup, South Asian Languages & Civilizations
- Ralph Nicholas, Anthropology
- Martha Nussbaum, Law School
- James H. Nye, Library
- Tahera Qutbuddin, Near Eastern Languages & Civilizations
- Trevor Price, Ecology and Evolution
- Tahera Qutbuddin, Near East Languages & Civilizations
- Frank Reynolds, Divinity: History of Religions
- Laura Ring, Library
- John Schneider, Medicine

- Clinton Seely, South Asian Languages & Civilizations
- Richard A. Shweder, Comparative Human Development
- Sunit Singh, Divinity School
- Paul Staniland, Political Science
- Ulrike Stark, South Asian Language & Civilizations
- Kaushik Sundar Rajan, Anthropology
- Richard P. Taub, Comparative Human Development
- Gary Tubb, South Asian Languages & Civilizations
- Christian K. Wedemeyer, Divinity: History of Religions
- Tyler Williams, South Asian Languages & Civilizations
- Austin Wright, Harris School of Public Policy
- Faridah Zaman, History
- Norman Zide, Linguistics

The University of Chicago is one of the leading centers for the study of Southern Asia. Countries in which we have scholarly expertise include in South Asia, Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka, and Tibet (as an autonomous region); and in Southeast Asia, Burma (Myanmar), Cambodia (Kampuchea), East Timor, Indonesia, Laos, Malaysia, Papua New Guinea, the Philippines, Singapore, Thailand, and Vietnam.

The Committee on Southern Asian Studies is an interdepartmental and interdivisional committee that coordinates research and teaching dealing with the countries of South and Southeast Asia. The committee formerly worked closely with the South Asia Language and Area Center, which was inaugurated in 1959 with grants from the Ford Foundation and the United States Department of Education under the National Defense Education Act, Title VI.

The committee works to enhance opportunities available to scholars both in the United States and in South and Southern Asia and to foster intellectual and scholarly communication and inter-disciplinary collaboration among the students and faculty at the University of Chicago and the wider Chicago and Southern Asian Studies communities.

The committee does not offer degrees, but cooperates with the several departments, committees, and schools within which specialized work on South or Southeast Asia may be combined with a degree program. These include the College; the Departments of Anthropology, Art History, Comparative Human Development, Comparative Literature, Economics, English, History, Linguistics, Music, Political Science, Psychology, Sociology, and South Asian Languages & Civilizations; the Committees on History of Culture, International Relations, and Social Thought; in the Divinity School, the fields of History of Religions, Church History, Philosophy of Religions; and in the Law School, International and Comparative Legal Studies.

Advanced degree programs with specialization in Bengali, Hindi, Malayalam, Marathi, Pali, Sanskrit, Tamil, Telugu, Tibetan, and Urdu languages, literatures, and civilizations are available in the Department of South Asian Languages & Civilizations. Persian and Arabic are available through the Department of Near Eastern Languages & Civilizations. A limited number of fellowships, scholarships, and grants in aid are awarded by the committee in support of training or research dealing with South or Southeast Asia. Students in all disciplines interested in training in South Asian languages may also apply for Foreign Language and Area Studies Fellowships under Section 602 of Title VI of the Higher Education Act of 1965 as amended. For further information, please write to the Associate Director

The University of Chicago Library has a very strong and well balanced collection of South Asian books, government documents, journals, and maps. It includes extensive holdings in all South Asian languages, as well as publications on the subcontinent from major publishing centers around the world. The library has been a comprehensive participant since 1962 in the Library of Congress Foreign Acquisitions Program for South Asia. The library's membership in the nearby Center for Research Libraries, and in its South Asia Microfilm Project (SAMP), provides ready access to additional valuable research materials. The library's South Asia Collection staff coordinates acquisition and processing, and provides specialized reference service. A smaller collection of Southeast Asian materials is limited to Western language works on the area from Burma to the Philippines.



STEVANOVICH INSTITUTE ON THE FORMATION OF KNOWLEDGE

Department Website: <https://sifk.uchicago.edu/>

Executive Director

- Macol Stewart Cerda

The Stevanovich Institute on the Formation of Knowledge (SIFK) opened in the fall of 2015 at the University of Chicago as a focal point for scholars to ask, What do we know?

In the current era, this question is more confusing than ever, and answers are hard to come by. We face unreliable news, non-replicable scientific experiments, masses of data, groupthink, cultural relativism, confusion about values, entrenched beliefs, and more.

In such an environment, we seek new methods for asking about the world. At the Stevanovich Institute on the Formation of Knowledge, we aim to understand how factors like history, politics, culture and religion can shape knowledge—year in and year out, over decades, over centuries. We believe that to understand a phenomenon, one must approach from a number of different fields, and with sensitivity to context. As no area of knowledge arises in a vacuum, we underplay the division of knowledge into departments within the university, offering KNOW classes that bring together perspectives from a number of fields.

Join us for a KNOW class as we try to find new answers to some of the largest and most perennial questions, all bearing on what it means to be human in the 21st century. We offer undergraduates and graduate students team-taught classes that challenge conventional wisdom across the board.

KNOW courses are cross-listed with a variety of departments, so students can enroll in them as a major course with their department's course number or as an elective with the KNOW course number. For graduate students, we offer a number of cross-listed seminars as well as an annual core sequence in topics in the formation of knowledge (KNOW 401, 402, 403). These seminars are open to all graduate students regardless of field of study.

For up-to-date course listings, visit sifk.uchicago.edu/courses.

DEPARTMENTAL CONTACTS

Administrative Manager

Jessica Velazquez
jvelazquez@uchicago.edu

773-702-6038

KNOW COURSES

KNOW 30926. Wonder, Wonders, and Knowing. 100 Units.

In wonder is the beginning of philosophy," wrote Aristotle; Descartes also thought that those deficient in wonder were also deficient in knowledge. But the relationship between wonder and inquiry has always been an ambivalent one: too much wonder stupefies rather than stimulates investigation, according to Descartes; Aristotle explicitly excluded wonders as objects of inquiry from natural philosophy. Since the sixteenth century, scientists and scholars have both cultivated and repudiated the passion of wonder; ON the one hand, marvels (or even just anomalies) threaten to subvert the human and natural orders; on the other, the wonder they ignite fuels inquiry into their causes. Wonder is also a passion tinged with the numinous, and miracles have long stood for the inexplicable in religious contexts. This seminar will explore the long, vexed relationship between wonder, knowledge, and belief in the history of philosophy, science, and religion.

Instructor(s): Lorraine Daston Terms Offered: Spring. Course to be taught Spring 2020

Prerequisite(s): Reading knowledge of at least one language besides English, some background in intellectual history. Consent is required for both grads and undergrads. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): SCH 30926, PHIL 30926, HIST 35318, HIST 25318, CHSS 30936

KNOW 31401. Philosophy of History: Narrative & Explanation. 100 Units.

This lecture-discussion course will focus on the nature of historical explanation and the role of narrative in providing an understanding of historical events. Among the authors discussed are Edward Gibbon, Immanuel Kant, R. G. Collingwood, Leopold von Ranke, Lord Acton, Fernand Braudel, Carl Gustav Hempel, Arthur Danto, and Hayden White. (III)

Instructor(s): R. Richards Terms Offered: Winter

Equivalent Course(s): CHSS 35110, PHIL 20506, PHIL 30506, HIST 25110, HIST 35110, HIPS 25110

KNOW 34112. Screening India: Bollywood and Beyond. 100 Units.

Cinema is, unarguably, the medium most apposite for thinking through the complexities of democratic politics, especially so in a place like India. While Indian cinema has recently gained international currency through the song and dance ensembles of Bollywood, there remains much more to be said about that body of films. Moreover, Bollywood is a small (though very important) part of Indian cinema. Through a close analysis of a wide range of films in Hindi, Bengali, Kannada, and Urdu, this course will ask if Indian cinema can be thought of as a form of knowledge of the twentieth century.

Instructor(s): R.Majumdar Terms Offered: Spring

Equivalent Course(s): SALC 30511, KNOW 24112, SALC 20511, CMST 24112, HIST 26808, GNSE 24112, GNSE 34112, CMST 34112, HIST 36808

KNOW 35000. Winckelmann: Enlightenment Art Historian and Philosopher. 100 Units.

We approach the first great modern art historian through reading his classic early and mature writings and through the art and criticism of his time (and at the end, our own). Reading-intensive, with a field trip to the Art Institute.

Instructor(s): Andrei Pop Terms Offered: Autumn

Prerequisite(s): German reading competence helpful, but NOT required.

Equivalent Course(s): GRMN 25015, ARTH 25115, CLAS 35014, ARTH 35115, SCTH 35000, GRMN 35015

KNOW 37016. Comparative Metahistory. 100 Units.

The seminar will focus on classical, medieval, and modern historiography from China, India, and Tibet seeking answers to three general questions: (1) How are senses of historical time created in Asian historiographies by means of rhetorical figures of repetition, parallelism, dramatic emplotment, frame stories, and interweaving storylines? (2) How are historical persons and events given meaning through use of poetic devices, such as comparison, simile, and metaphor? And (3) How do Asian histories impose themselves as realistic accounts of the past by means of authoritative devices using citation of temporal-spatial facts, quotation of authority, and/or reliance on established historical genres? The methods employed to answer these questions are here adapted from pre-modern Asian knowledge systems of literary theory, poetics, dramaturgy, and epistemology, and thus permit looking at other knowledge formations from within the discourse of the traditions themselves.

Instructor(s): Haun Saussy (University of Chicago) & Ulrich Timme Kragh (Adam Mickiewicz University, Poland) Terms Offered: Autumn

Equivalent Course(s): EALC 27016, EALC 37016, CMLT 27016, KNOW 27016

KNOW 40104. Battle in the Mind Fields. 100 Units.

The goal of this course is to better understand both the ruptures and the continuity that we find in the development of linguistics, psychology, and philosophy over the period from early in the 19th century up until around 1960. Among the topics we will look at are the emergence of 19th century linguistics through the methods developed to reconstruct Proto Indo-European, and at the same time, the emergence of two wings of German psychology (exemplified by Brentano and by Wundt); the transplanting of both of these disciplines to the United States at the end of the 19th century; the rise of behaviorism in psychology and its interaction with Gestalt psychology as German scholars were forced to leave their homes in Europe in the years before World War II; the development of an American style of linguistics associated with the Linguistic Society of America; and the interactions after World War II of cybernetics, cognitively-oriented psychology, and a new style of linguistic theory development, and the relationship between generative grammar and the work in phonology and syntax during the 1950s in the United States.

Instructor(s): John Goldsmith Terms Offered: Autumn

Equivalent Course(s): LING 26550, LING 36555

KNOW 40205. Ecological Thinking. 100 Units.

What is the environment, anyway? Is it a collection of resources? An entity in need of protection? An autonomous state of being? In this course, we will engage with writers and thinkers who have grappled with what it means to think ecologically. We will examine how environmental concerns have reached across borders to shape law, culture, and theories of knowledge on a global scale. Course themes will include environmental justice, the energy humanities, postcolonial environmentalisms, ecocriticism, ecofeminism, queer ecologies, and critical life studies. Readings will include works by Rachel Carson, William Cronon, Lawrence Buell, Helena Maria Viramontes, Christopher Stone, Rob Nixon, Tamara Giles-Vernick, Timothy Morton, and others.

Instructor(s): Nicolette I. Bruner Terms Offered: Winter

Equivalent Course(s): CHSS 40205

KNOW 40206. Assaulting the Paradigm: Franz Boas and His Contemporaries. 100 Units.

How do ideas succeed? What challenges do those who voice new ideas face as they try to gain adherents, and how do they rise to influence against the odds? This course examines how the unexpected, the unconventional, and the radically original can dethrone accepted truths. We will investigate this question through a case study of the anthropologist Franz Boas and his contemporaries, who assaulted the paradigm of race at the turn of the twentieth century. In addition to reading Boas, we will study the works of John Dewey, W. E. B. Du Bois, Sigmund Freud, Zora Neale Hurston, Claude Lévi-Strauss, Margaret Mead, and Thorstein Veblen. By tracing the mutual influence between Boas and thinkers in fields from psychology to philosophy, we can examine how knowledge is contested and propagated-including the challenges those who frame ideas face as they break away from the pack, the role of social networks in the success of concepts that go "against the grain" of conventional wisdom, and the special agency of multidisciplinary collaboration in the periods of ferment produced when authority is tested and new ideas are demanded.

Instructor(s): Isaiah Lorado Wilner Terms Offered: Winter

Equivalent Course(s): ANTH 44810, CHSS 40206

KNOW 40207. Human Rights and Humanitarianism in the Modern World. 100 Units.

The related concepts of human rights and humanitarianism form the basis of contemporary ethical and political thought. Acting in the name of "humanity" is seen as unequivocally noble, and very few of us would ever claim to be anti-humanitarian or anti-human rights. Yet the moral consensus surrounding these terms obscures a contested and often disturbing history. Rather than uncritically accepting a triumphalist story of the progressive victory of human rights and humanitarianism, this course will explore how these concepts were constructed over time, paying special attention to how they were used in practice, what kind of rhetorical work they accomplished, and whose interests they served. The course will consider the origins of modern concepts of humanity, rights, citizenship, and social responsibility during the enlightenment and trace how they developed over the course of the 19th and 20th centuries. We will study the role of human rights and humanitarianism in the transformative events and processes of modern history, including the rise of nation-states, the trans-Atlantic slave trade and its abolition, imperial expansion and decolonization, the world wars, and twentieth-century genocides. Students will leave the course with an understanding of how human rights and humanitarianism can be applied to their own research interests.

Instructor(s): Yan Slobodkin Terms Offered: Winter

Equivalent Course(s): CHSS 40207

KNOW 40208. Man and/as Machine. 100 Units.

Recently, Amazon employees fighting for better working conditions united under the slogan "We are not robots!" Recalling Karl Capek's R.U.R., which coined the word robot (from the Czech word for slave), the slogan suggests the importance of the machine as an object and a concept in relation to which human identity has been - and continues to be - defined. Throughout the history of human thought, the machine has existed as both something that we are like (for example, Descartes comparing the brain to a machine) but also as an opposite to humanity (as in the aforementioned slogan). This course will trace this tension between the machine as an 'Other' and as a metaphor for our human self from the early modern period to the present. Beginning with theoretical and philosophical writing on the importance of oppositions and binaries to human identity and language, it will trace the history of the idea of the machine as it relates to the human in texts by Rene Descartes, La Mettrie, Emile Zola, Karl Capek, Alan Turing, and Donna Haraway, among others. In addition to confronting the complexity and ambiguity of a concept that ubiquitously shapes our lives today, students in this course will also wrestle with broader humanistic questions regarding the nature of the Self, the boundaries between self and other, and the relationship between human identity and technology.

Instructor(s): Anastasia Klimchynskaya Terms Offered: Winter

Equivalent Course(s): CHSS 40208

KNOW 40304. Between Nature and Artifice: The Formation of Scientific Knowledge. 100 Units.

This course critically examines concepts of "nature" and "artifice" in the formation of scientific knowledge, from the Babylonians to the Romantics, and the ways that this history has been written and problematized by both canonical and less canonical works in the history of science from the twentieth century to the present. Our course is guided by three overarching questions, approached with historical texts and historiography, that correspond to three modules of investigation: 1) Nature, 2) Artifice, and 3) Liminal: Neither Natural nor Artificial.

Instructor(s): Margaret Carlyle, Eduardo Escobar, Jennifer P. Daly Terms Offered: Spring

Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. Ph.D. students must register with the KNOW 40304 course number in order for this course to meet the requirement.

Equivalent Course(s): CRES 40304, GNSE 40304, HIST 34920, CHSS 40304, HIPS 40304

KNOW 40307. Seeing and Knowing. 100 Units.

The concept of visibility attends to the ways in which things become seeable, knowable, and governable. Scholars who study optical instruments, architecture, cinema, and media have done much to show us how visual technologies change our ways of seeing. Others in the history of science study how practices of observation transform our understanding of nature-and ourselves. This comparative course analyzes regimes of visibility in different cultural and historical contexts. After a short introduction on the philosophy of visual experience and psychology of visual perception, we will investigate a series of configurations of seeing and knowing. These sites range from the history of disability to contemporary climate science, and students will be asked to contribute visual topics from their own research or disciplines for collective exploration in our seminar. Through comparative study, we will work to develop new categories or relationships for linking perception and knowledge.

Instructor(s): Alex Campolo Terms Offered: Spring

KNOW 40308. Political Theologies of Slavery and Freedom in the Atlantic World. 100 Units.

This seminar examines the interdisciplinary form of knowledge known as "political theology" in the context of Atlantic slavery. The course will trace two major developments. First, we will explore how Christian metaphysics facilitated colonialism and slavery, focusing on the emergence of race as a theological (rather than a biological) concept and on the self-fulfilling providentialism that structured fantasies of Euro-Christian world dominance. Second, we will explore how indigenous and African cosmologies and Christianities informed enslaved resistance and abolitionism. Our readings will range from works of political theology (Augustine, Calvin, Hobbes) to early American writings (Las Casas, Ligon, Jefferson) to Black Atlantic anti-slavery texts (Wheatley, Walker, Turner). We'll consider the explorer George Best's rewriting of the biblical Curse of Ham, Francis Bacon's claim that Europe's superior technology evidenced its Chosen status, and the ideology of "hereditary heathenism" that forestalled early efforts to convert slaves to Christianity. Likewise, we'll consider the role of obeah in the Haitian Revolution, the competing attitudes toward Christian slave revolt found in fiction by Douglass and Stowe, and the continued contestation of what W. E. B. Du Bois called "the new religion of whiteness." Secondary authors may include Charles Taylor, Talal Asad, Max Weber, Colin Kidd, Rebecca Goetz, Jared Hickman, Katharine Gerbner, Jorge Cañizares-Esguerra, and J. Kameron Carter

Instructor(s): Alex Mazzaferro Terms Offered: Spring

Equivalent Course(s): SETH 40308

KNOW 40309. Miracles, Marvels, and Mystics: Unknowing in Medieval England. 100 Units.

In this seminar we will explore how premodern literary texts imagined experiences of 'unknowing': narrating scenes of astonishment, misapprehension, and disbelief. Our primary readings will draw on a rich tradition of vernacular writing in medieval England. We will read across that tradition's genres, as writers experimented with ways to represent the wondrous, the occluded, the incomprehensible, and the horrific in a variety of forms, among them spectacular miracle plays, prose exercises in mystical negation, and the poetry of dreamworlds and alchemical secrecy.

Instructor(s): Joe Stadolnik Terms Offered: Spring

Equivalent Course(s): ENGL 40309

KNOW 44600. Zion and Zaphon: Biblical Texts from Seventh Century Judah (Chavel) 100 Units.

Students will examine biblical texts on the premise they respond to the astonishing turn of events in the eighth century bce, in which Assyria dissolved the Israelian kingdom and nearly destroyed the Judean, with: theoretical orientation from history and historiography, memory studies, and literary theory; survey of ancient written and image-based sources; archaeological evidence.

Instructor(s): Simeon Chavel Terms Offered: Autumn

Equivalent Course(s): BIBL 44600

KNOW 53003. Explanation. 100 Units.

This course surveys recent work on explanation across philosophical disciplines. Beginning with classic accounts of scientific explanation we will proceed to consider recent work on mechanical explanation, mathematical explanation, causal explanation (particularly in the physical and social sciences), the relation between explanation and understanding, and metaphysical explanation (particularly the idea of explanation as ground).

(II)

Instructor(s): T. Pashby Terms Offered: Spring

Equivalent Course(s): PHIL 53003, CHSS 53003

KNOW 55100. The Development of Whitehead's Philosophy of Nature. 100 Units.

Alfred North Whitehead's philosophy has seen a resurgence of academic interest in recent years via a line of influence passing through Deleuze and Latour. Meanwhile, Whitehead's *Process and Reality* (1929) has gained a reputation, not undeserved, as possibly the most challenging English language text in the philosophical canon; it is seldom read in a department of philosophy. This is a pity, since the striking originality and creative potential of the philosophy contained within is unmatched. This course offers an opportunity for a gradual approach to understanding the "philosophy of organism" of *Process and Reality* by first taking in the foothills of earlier and less obtuse Whitehead texts *Concept of Nature and Science* and *The Modern World*. We will supplement these readings with newly discovered notes from Whitehead's Harvard lectures (published just last year). These documents reveal Whitehead in meditative mood, thinking through in real time his philosophical concerns. With their help, this course will explore the striking continuity of his earlier natural philosophy with the mature philosophy of *Process and Reality* and so provide a more gentle ascent to the heady realms of "actual entities", "conrescence" and "conceptual feelings" described therein. (II)

Instructor(s): T. Pashby Terms Offered: Autumn

Equivalent Course(s): CHSS 55100, PHIL 55100

KNOW 57000. -/+ Molding, Casting, and the Shaping of Knowledge. 100 Units.

Of all technologies of reproduction and resemblance, those of molding and casting are perhaps the most intimate. An object, a sculpture, a creature, a person is slathered in plaster (or some other form-hugging material), and the resulting "negative" image is rendered into a "positive" replica. This course explores the various historically and culturally contingent meanings that have been attached to these technical procedures-despite their ostensibly "styleless" or "anachronistic" character-from the ancient world to the present day. Used in practices ranging from funerary rituals to fine art, natural history to medicine, anthropology to forensics, molding and casting constitute forms of knowledge production that capture at once the real and the enduring, the ephemeral and fleeting, and the authentic and affective. Featuring a diverse set of readings by authors such as Pliny the Elder, Charles Sanders Peirce, Walter Benjamin, Oswald Spengler, Gilbert Simondon, and others, the colloquium will address theoretical and methodological questions pertaining to concepts of materiality, indexicality, tactility, scalability, and seriality. Besides plaster, the objects of our analysis will comprise a diverse range of media including but not limited to wax, metal, photography and film, synthetic polymers, and digital media.

Instructor(s): P. Crowley and M. Rossi Terms Offered: Spring

Equivalent Course(s): ANTH 54835, HIST 57000, CHSS 57000, ARTH 47300



THE DIVISION OF THE BIOLOGICAL SCIENCES AND THE PRITZKER SCHOOL OF MEDICINE

Kenneth S. Polonsky, M.D.

- Richard T. Crane Distinguished Service Professor
- Dean of the Division of the Biological Sciences and the Pritzker School of Medicine
- Executive Vice President for Medical Affairs

Victoria E. Prince, Ph.D.

- Professor, Department of Organismal Biology & Anatomy
- Dean of Graduate Affairs and Director, Office of Graduate and Postdoctoral Affairs

Halina Brukner, M.D.

- Professor, Department of Medicine
- Interim Dean for Medical Education

The Division of the Biological Sciences is unique in encompassing both a medical school and graduate programs in biological sciences. Faculty in the division teach biology to undergraduate students, but the organization and administration of baccalaureate programs in the biological sciences is the responsibility of the College, through the office of the Master of the Biological Sciences Collegiate Division. The departments and faculty within the division are not separated by providing instruction to medical, graduate or college students, but rather all serve the entire curricular needs of the students in the university. This organizational structure makes possible a wide range of contacts and interactions among students and faculty in the basic and clinical science areas and affords singular study and research opportunities for students regardless of their program of study.

DEGREES AND REQUIREMENTS

The Division of the Biological Sciences offers the degrees of Master of Science, Doctor of Philosophy, Doctor of Medicine, or Doctor of Medicine with Honors. Combined degrees (A.B./S.M. or M.D./Ph.D.) are available within certain special programs.

Recommendation for any of these degrees is conditional on the satisfactory completion of the academic requirements for the degree and the maintenance of proper conduct by the student while in the University.

MASTER OF SCIENCE

The Master of Science degree is awarded by the Division of the Biological Sciences in very specific circumstances: the S.M. in Public Health Sciences for Clinical Professionals; the S.M. in Translational Research for PhD students in select BSD graduate programs; or as below:

- Those individuals not continuing in their Ph.D. program of study may be awarded a terminal masters degree.
- Some students who are continuing their Ph.D. programs specify a desire to receive a transitional Master of Science degree.

DOCTOR OF PHILOSOPHY

A general statement of the conditions under which this degree is awarded is presented here. The more specific program requirements are described in the sections outlining the offerings of each graduate program.

- Bachelors degree from an accredited undergraduate institution.
- A minimum of three years of graduate work beyond the level of the bachelors degree. Advanced standing for graduate work completed at other institutions may be given if recommended by the graduate program concerned and approved by the Dean of Graduate Affairs.
- Completion of nine, letter graded courses at the University of Chicago, with a B average in course grades. This is a minimum; individual units may have more stringent requirements.
- Preliminary examination testing the candidate's general knowledge of their field of study.
- Fulfillment of the divisional teaching requirement. Before the Ph.D. can be awarded, students are required to serve as a teaching assistant twice (two quarters) for credit in preapproved positions in the biological sciences.

- Fulfillment of the divisional ethics requirement. All students receive training in scientific integrity and the ethical conduct of research. The first course is completed in the first year of study and the second training is taken in the fifth year, if the PhD is not yet completed.
- Formal admission to candidacy for the degree upon recommendation of the graduate program, after completion of all program-specific requirements, including course work and the preliminary examination if applicable. Admission to candidacy is approved by the Dean of Graduate Affairs at least eight months before the degree is granted but generally occurs at the beginning of the third year of study.
- Acceptance of a dissertation submitted by the student to the graduate program having jurisdiction over the student's degree.
- A successful final examination administered by the graduate program concerned.

COMBINED BACHELOR'S/MASTER'S

Students who have completed at least three years of undergraduate study in the College of the University of Chicago but have not completed their bachelor's degree may sometimes qualify for admission to a special A.B./S.M. program leading directly to the master's degree. Acceptance into such a program depends on a student's qualifications and on departmental policy. Only a few departments currently offer such a combined program. Inquiries should be made to the appropriate departments or the College office.

DOCTOR OF MEDICINE

This degree is normally awarded after fourteen quarters of satisfactory full time work at the University of Chicago Pritzker School of Medicine. To qualify for the M.D. degree, students must have completed at least the last eight academic quarters of medical studies in the School. Please see the Pritzker School of Medicine section for additional information on this degree.

DOCTOR OF MEDICINE WITH HONORS

Each year during the spring, the committee on honors and awards entertains nominations from individual departments of senior medical students to be awarded graduation with honors. It is the purpose of this committee to select those students who have demonstrated leadership qualities, outstanding scholastic performance, and significant research abilities and accomplishments. Membership in Alpha Omega Alpha is taken into consideration, but is not a prerequisite for the award. The names of students so honored appear in the convocation program followed by the notation with Honors. This notation also appears both on the official academic records and on the diplomas of such students.

M.D./PH.D. DEGREES

In addition to the regular degree programs in medicine (M.D.) and the basic sciences (Ph.D.), the Division of the Biological Sciences administers a few special joint degree programs, such as the Medical Scientist Training Program, Growth, Development and Disabilities Training Program and the MD-PhD program in Medicine, the Social Sciences and Humanities.



PROGRAMS OF GRADUATE STUDY IN THE BASIC BIOLOGICAL SCIENCES

The Division of the Biological Sciences offers a variety of graduate programs leading to the Ph.D. degree. Graduate programs are offered under the aegis of divisional departments as well as interdepartmental committees composed of faculty members with a common interest in a broad but definable area of advanced study. Some programs are organized into larger groups called clusters, a structure that provides cohesion across programs through shared retreats, common curriculum, and shared administrative duties. A few programs offer unique training opportunities and are not organized into a cluster. Joint programs also may be devised in other divisions of the university, such as with chemistry in the Division of the Physical Sciences and psychology in the Division of the Social Sciences. The fundamentals of graduate education in the division are not altered by these provisions. Students complete their degree in individual graduate programs.

The University's hallmark emphasis on interdisciplinary research and collaboration, coupled with access to the latest technology and to three major affiliated laboratories, offers the opportunity to enrich human life in Chicago and around the globe through basic, translational, and clinical research.

The goal of the programs is the creation and dissemination of fundamental knowledge of life processes and the education and training of outstanding young scholars in these disciplines. To this end, the Division of the Biological Sciences has assembled a dedicated and talented faculty, strong in research and teaching, and has developed laboratory and other facilities of the first rank that allow the faculty and graduate students to pursue their goals at the highest level of excellence.

The programs of study leading to the Ph.D. degree are organized by cluster below.

Biomedical Sciences: Cancer, Immunology, Microbiology and Molecular Metabolism and Nutrition

- The Committee on Cancer Biology
- The Committee on Immunology
- The Committee on Molecular Metabolism and Nutrition
- The Committee on Microbiology

Darwinian Sciences: Ecological, Integrative, and Evolutionary Biology

- The Department of Ecology and Evolution
- The Committee on Evolutionary Biology
- Graduate Program in Integrative Biology

Molecular Biosciences: Biochemistry, Genetics, and Cell and Developmental Biology

- Graduate Program in Biochemistry and Molecular Biophysics
- The Committee on Development, Regeneration, and Stem Cell Biology
- The Department of Human Genetics
- The Committee on Genetics, Genomics, and Systems Biology
- Graduate Program in Cell and Molecular Biology

Neuroscience: Computational Neuroscience, Neurobiology and Integrative Neuroscience

- The Committee on Computational Neuroscience
- Program in Integrative Neuroscience (Psychology)
- The Committee on Neurobiology

These degree granting units have not entered into a cluster arrangement and provide separate admission. They are:

- The Department of Public Health Sciences (M.S. and Ph.D.)
- The Committee on Medical Physics
- Graduate Program in Biophysical Sciences (Joint with the Division of Physical Sciences)

ADMISSION PROCEDURES

The following requirements and procedures apply to those students wishing to follow a course of study leading to the Doctor of Philosophy degree in the division. Students may apply to a single cluster and as many as four individual units, indicating their choices in order of preference. According to their own schedules, the units applied to will communicate directly with the student as needed. Final decision letters are issued by the BSD Office of Graduate and Postdoctoral Affairs (OGPA).

APPLICATION MATERIALS

Information about graduate programs and application materials is available at <http://biosciences.uchicago.edu/>.

DEADLINES

Applications are due December 1st. Late applications will be reviewed only at the discretion of the Dean for Graduate Affairs. Incomplete applications will be evaluated on the basis of materials received at the time of the regular review process. Interviews are often required and students will be invited to attend formal recruitment weekends. Beginning about March 1, admissions decisions are released to applicants. Responses by applicants to offers of admission are due to O GPA by April 15.

CREDENTIALS

An applicant who holds an undergraduate degree from an accredited institution is considered for admission on the basis of:

1. An excellent undergraduate record
2. The Graduate Record Examination
3. A demonstrated interest in a research career
4. Three letters of recommendation addressing the scientific abilities and potential for graduate studies of the applicant
5. Proof of English proficiency for foreign students whose native language is not English; either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Certain programs require additional credentials. These additional requirements may be ascertained by contacting the individual program.

FUNDING

The typical BSD graduate student working toward the Ph.D. degree is fully funded (regular tuition and fees and prevailing competitive stipend). Funds for this support are derived from numerous sources, including federal or private training grants, institutional funds, endowed funds, research grants and individual awards to students. During a student's course of study, support mechanisms may vary. Funds for international students are limited to institutional sources. Funding is guaranteed for five years, subject to maintaining satisfactory progress.



QUANTITATIVE AND COMPUTATIONAL TRAINING OPPORTUNITIES

The major focus in quantitative science is distributed across the University of Chicago, and our enrichment in the biological sciences division includes the Grossman Institute for Neuroscience, Quantitative Biology and Human Behavior, the Computation Institute (CI), the Center for Data Intensive Science (CDIS), Center for Research Informatics (CRI). Classes listed here are taken from across the University.

This page provides information regarding classes taught at the University relating to

- GENERAL QUANTITATIVE BACKGROUND
- COMPUTATION/PROGRAMMING
- DYNAMICAL AND STOCHASTIC SYSTEMS
- INFERENCE (MODELS AND DATA)
- COMPLEX SYSTEMS AND SYSTEMS BIOLOGY
- SCIENTIFIC COMPUTING
- THEORY, COMPUTATION AND STATISTICAL INFERENCE

CLASSES IN GENERAL QUANTITATIVE BACKGROUND

HGEN 47400	Introduction to Probability and Statistics for Geneticists	100
MPHY 34900	Mathematics for Medical Physics	100
PBHS 32100	Introduction to Biostatistics	100
PBHS 32400	Applied Regression Analysis	100
PBHS 32700	Biostatistical Methods	100
PBHS 33200	Statistical Analysis with Missing Data	100
PBHS 33500	Statistical Applications	100
STAT 24400	Statistical Theory and Methods I	100
STAT 30750	Numerical Linear Algebra	100

CLASSES IN COMPUTATION/PROGRAMMING

ECEV 32000	Computing Skills for Biologists	100
STAT 37810 & STAT 37820	Statistical Computing A and Statistical Computing B	100

CLASSES IN DYNAMICAL AND STOCHASTIC SYSTEMS

CPNS 31000	Mathematical Methods for Biological Sciences I	100
CPNS 31100	Mathematical Methods for Biological Sciences II	100
MGCB 32000	Quantitative Analysis of Biological Dynamics	100
MPHY 39600	Image Processing/Computer Vision	100

CLASSES IN INFERENCE (MODELS AND DATA)

GEOS 26100	Phylogenetics and the Fossil Record	100
GEOS 35100	Data Analysis for the Geophysical Sciences	100
GEOS 36000	Morphometrics	100
GEOS 36100	Phylogenetics and the Fossil Record	100
HGEN 48600	Fundamentals of Computational Biology: Models and Inference	100
PBHS 32600	Analysis of Categorical Data	100
PBHS 33300	Applied Longitudinal Data Analysis	100
PBHS 33400	Multilevel Modeling	100
PBHS 43010	Applied Bayesian Modeling and Inference	100
PBHS 43201	Introduction to Causal Inference	100

COURSES IN COMPLEX SYSTEMS AND SYSTEMS BIOLOGY

HGEN 47300	Genomics and Systems Biology	100
PHYS 25100	Chaos, Complexity And Computers	100
STAT 38620	Social Networks, Probability, Learning, and Game Theory	100

COURSES IN SCIENTIFIC COMPUTING

ECEV 32000	Computing Skills for Biologists	100
MPCS 53003	Advanced Databases	100
STAT 37601	Machine Learning and Large-Scale Data Analysis	100

COURSES IN THEORY, COMPUTATION AND STATISTICAL INFERENCE IN SPECIFIC FIELDS

CPNS 35510	Theoretical Neuroscience: Single Neuron Dynamics and Computation	100
CPNS 35520	Theoretical Neuroscience: Network Dynamics and Computation	100
CPNS 35600	Theoretical Neuroscience: Statistics and Information Theory	100
ECEV 35600	Principles of Population Genetics-1	100
ECEV 42800	Population Ecology	100
ECEV 42900	Theoretical Ecology	100
GEOG 38201	Intro to Geographic Information Systems	100
GEOG 38400	Intermediate GIS/Cartography	100
HGEN 46900	Human Variation and Disease	100
HGEN 47100	Intro Statistical Genetics	100
PBHS 32901	Introduction to Clinical Trials	100
PBHS 35100	Health Services Research Methods	100
STAT 35800	Statistical Applications	100
STAT 35400	Gene Regulation	100
STAT 35500	Statistical Genetics	100
STAT 35700	Epidemiologic Methods	100



GRADUATE PROGRAM IN BIOCHEMISTRY AND MOLECULAR BIOPHYSICS

Chair

- Tobin R. Sosnick

Professors

- Erin J. Adams
- Francisco Bezanilla
- Glyn Dawson, Pediatrics
- D. Allan Drummond
- Geoffrey Greene, Ben May Department for Cancer Research
- Chuan He, Chemistry
- Robert J. Keenan
- Stephen B. H. Kent
- Anthony A. Kossiakoff
- David Kovar, Molecular Genetics & Cell Biology
- Marvin W. Makinen
- Stephen Meredith, Pathology
- Keith Moffat
- Tao Pan
- Eduardo Perozo
- Joseph A. Piccirilli
- Rama Ranganathan
- Phoebe A. Rice
- Benoit Roux
- Alex Ruthenburg, Molecular Genetics & Cell Biology
- Nancy B. Schwartz, Pediatrics
- James A. Shapiro
- Tobin R. Sosnick
- Joseph Thornton, Human Genetics

Associate Professors

- Ronald S. Rock

Assistant Professors

- Demet Arac-Ozkan
- Jingyi Fei
- Engin Ozkan
- Minglei Zhou

Emeritus Faculty

- Wolfgang Epstein
- Theodore L. Steck
- Edwin W. Taylor

The biochemistry and molecular biophysics graduate program is a highly interdisciplinary program of study offered by the Department of Biochemistry and Molecular Biology. The program forges a scientific culture of collaboration across the physical and biological sciences and among diverse laboratories. In this environment, students will have the opportunity to engage in research that aims to understand biological processes at the molecular level. The program is designed to encourage students to pursue research interests at the biological-physical sciences interface using diverse approaches such as structural and chemical biology, molecular and single molecule biophysics, combinatorial mutagenesis, protein engineering and RNA and DNA protein recognition.

Admission

For information about applying to our graduate program, please visit our website at <http://bcmb.uchicago.edu>.

Degrees

DOCTOR OF PHILOSOPHY

A Ph.D. program requires generally 4 to 6 years of study. In the first year, students engage in course work and small research projects in several laboratories to become acquainted with the department. Also during the first year there are many opportunities to attend departmental seminars and the Graduate Student Seminar Series and to participate in the visits of invited speakers. In the summer quarter of the first year students engage in the preliminary examination, in which they develop, write, and defend an original research proposal. After successful completion of the preliminary examination, students choose a research advisor, carry out their Ph.D. research in the advisor's laboratory, and write and orally defend a thesis.

Classes may be substituted by graded laboratory rotations. Of the nine courses only the following are required:

BCMB 30400	Protein Fundamentals	100
BCMB 31600	Cell Biology I	100
BCMB 31200	Molecular Biology I	100
BCMB 32200	Biophysics of Biomolecules	100

Two additional courses (BCMB 31900 – Introduction to Faculty Research, affectionately called “Faculty All Stars” and BCMB 31800 – Current Seminar Topics in Biochemistry and Molecular Biology) are required. The introduction to faculty research course is not for credit; however, BCMB 31800 is for ½ credit. Each student is required to be a teaching assistant for a total of two quarters in their third and fourth years of residence.

The preliminary examination in BMB consists of a written research proposal that is prepared and submitted during the summer quarter of the first year (the fourth quarter in residence). Students (including ISTP students interested in joining BMB) will be permitted to take the preliminary examination only after all course and grade requirements have been met. The exam consists of a concise written research proposal and an oral defense of the proposal. Students are expected to demonstrate their ability to 1) identify a scientific problem, 2) propose experiments to address the problem, 3) interpret potential outcomes from the experiments, and 4) frame the question and results in a broader scientific context. In addition, students are evaluated on their ability to convey their ideas clearly in the written proposal and to defend the proposal orally. The chairperson of each exam committee will then contact the student regarding the outcome of their exam and provide written feedback. Two outcomes are possible: Pass or Revisions Needed. If revisions are required, the student will have the opportunity to respond to the committee's concerns and either revise portions of the proposal or re-write the entire proposal as indicated by the committee. In these cases, students will need to write a cover letter addressing the concerns of the committee and the changes that have been made. In addition, students may be required to re-defend the revisions orally with part or all of the exam committee. If a student is asked to re-write and re-defend the entire proposal, an additional faculty member will be added to the exam committee. Inadequate performance on a second exam is grounds for dismissal from the program. For continuation in the program, students must successfully pass the Preliminary Examination by the end of the fifth quarter of full-time residence as a graduate student in biochemistry and molecular biology.

During the second year, students select a thesis advisor and begin laboratory research. To complete the Ph.D. degree, they must prepare, under the general direction of an appointed doctoral committee, a dissertation based upon their original research. A public seminar describing the results of the dissertation research must be presented and the dissertation must be successfully defended before the doctoral committee.

BIOCHEMISTRY AND MOLECULAR BIOLOGY COURSES

BCMB 30300. Applications of Nuclear Magnetic Resonance to Structural Biology. 50 Units.

The main objectives of the workshop are (i) to learn NMR based structure characterization methods and their applications and (ii) to become familiar with technical underpinnings of these methods so as to be able to critically appraise publications using these methods.

Instructor(s): S. Meredith; J. Sachleben Terms Offered: Autumn

BCMB 30400. Protein Fundamentals. 100 Units.

The course covers the physical-chemical phenomena that define protein structure and function. Topics include: the principles of protein folding, molecular motion and molecular recognition; protein evolution, design and engineering; enzyme catalysis; regulation of protein function and molecular machines; proteomics and systems biology. Workshop on X-ray Crystallography: The workshop is an addendum to Protein Fundamentals and is required for all BCMB students. This one week workshop will provide students with an intensive introduction to protein structure determination by x-ray crystallography. In addition to lectures, an extensive laboratory component will give students the opportunity to carry out protein crystallization, data collection (at Argonne), structure determination, refinement, model building and validation.

Instructor(s): E. Ozkan, D. Arac Terms Offered: Autumn

Equivalent Course(s): MGCB 30400, HGEN 30400

BCMB 30600. Nucleic Acid Structure and Function. 100 Units.

This course focuses on the biochemistry of nucleic acids. Topics include nucleic acid structure, folding, and chemistry, protein-nucleic acid interactions, non-coding RNAs, and the enzymology of key processes such as DNA replication, repair and recombination. A special emphasis is placed on primary literature.

Instructor(s): P. Rice, T. Pan Terms Offered: Autumn

Prerequisite(s): Course in biochemistry, molecular biology and organic chemistry

BCMB 30800. Single Molecule Biochemistry. 100 Units.

This course presents a series of advanced case studies designed to familiarize students with current single molecule research. Topics include: motor proteins and the cytoskeleton, nucleic acid processing enzymes, ion channels, and force spectroscopy and macromolecule folding.

Instructor(s): R. Rock, F. Bezanilla Terms Offered: Spring

BCMB 31100. Evolution of Biological Molecules. 100 Units.

The course connects evolutionary changes imprinted in genes and genomes with the structure, function and behavior of the encoded protein and RNA molecules. Central themes are the mechanisms and dynamics by which molecular structure and function evolve, how protein/ RNA architecture shapes evolutionary trajectories, and how patterns in present-day sequence can be interpreted to reveal the interplay data of evolutionary history and molecular properties. Core concepts in macromolecule biochemistry (folding and stability of proteins and RNA, structure-function relationships, kinetics, catalysis) and molecular evolution (selection, mutation, drift, epistasis, effective population size, phylogenetics) will be taught, and the interplay between them explored.

Instructor(s): A. Drummond, J. Thornton Terms Offered: Winter

Prerequisite(s): Comfort with basic computer programming (course will use Python and R); undergraduate biology, chemistry, calculus, and introductory statistics.

Equivalent Course(s): ECEV 31100, HGEN 31100

BCMB 31200. Molecular Biology I. 100 Units.

Nucleic acid structure and DNA topology; methodology; nucleic-acid protein interactions; mechanisms and regulation of transcription in eubacteria, and of replication in eubacteria and eukaryotes; mechanisms of genome and plasmid segregation in eubacteria.

Instructor(s): L. Rothman-Denes Terms Offered: Winter

Equivalent Course(s): MGCB 31200, DVBI 31200

BCMB 31300. Molecular Biology-II. 100 Units.

The content of this course covers the mechanisms and regulation of eukaryotic gene expression at the transcriptional and post-transcriptional levels. Our goal is to explore research frontiers and evolving methodologies. Rather than focusing on the elemental aspects of a topic, the lectures and discussions highlight the most significant recent developments, their implications and future directions.

Instructor(s): J. Staley, A. Ruthenburg Terms Offered: Spring

Prerequisite(s): Molecular Biology I (MGCB 31200) or by special permission of an instructor

Equivalent Course(s): MGCB 31300, DVBI 31300

BCMB 31358. Simulation, Modeling, and Computation in Biophysics. 100 Units.

This course develops skills for modeling biomolecular systems. Fundamental knowledge covers basic statistical mechanics, free energy, and kinetic concepts. Tools include molecular dynamics and Monte Carlo simulations, random walk and diffusion equations, and methods to generate random Gaussian and Poisson distributors. A term project involves writing a small program that simulates a process. Familiarity with a programming language or Matlab would be valuable.

Instructor(s): B. Roux Terms Offered: Winter

Prerequisite(s): BIOS 20200 and BIOS 26210-26211, or consent from instructor

Equivalent Course(s): BIOS 21358, CPNS 31358

BCMB 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Equivalent Course(s): MGCB 31400, DVBI 31400, HGEN 31400

BCMB 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion.

Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn

Equivalent Course(s): DVBI 31600, HGEN 31600, MGCB 31600

BCMB 31700. Cell Biology II. 100 Units.

This course covers the mechanisms with which cells execute fundamental behaviors. Topics include signal transduction, cell cycle progression, cell growth, cell death, cancer biology, cytoskeletal polymers and motors, cell motility, cytoskeletal diseases, and cell polarity. Each lecture will conclude with a dissection of primary literature with input from the students. Students will write and present a short research proposal, providing excellent preparation for preliminary exams.

Instructor(s): M. Glotzer, D. Kovar Terms Offered: Winter

Prerequisite(s): For undergraduates: Three quarters of a Biological Sciences Fundamentals sequence.

Equivalent Course(s): DVBI 31700, BIOS 21238, MGCB 31700

BCMB 31900. Introduction to Research. 100 Units.

Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students.

Instructor(s): Staff Terms Offered: Autumn, Winter

Equivalent Course(s): GENE 31900, DVBI 31900, HGEN 31900, MGCB 31900

BCMB 32200. Biophysics of Biomolecules. 100 Units.

This course covers the properties of proteins, RNA, and DNA, as well as their interactions. We emphasize the interplay between structure, thermodynamics, folding, and function at the molecular level. Topics include cooperativity, linked equilibrium, hydrogen exchange, electrostatics, diffusion, and binding.

Equivalent Course(s): BIOS 21328, BPHS 31000

BCMB 32300. Structure and Function of Membrane Proteins. 100 Units.

This course will be an in depth assessment of the structure and function of biological membranes. In addition to lectures, directed discussions of papers from the literature will be used. The main topics of the courses are: (1) Energetic and thermodynamic principles associated with membrane formation, stability and solute transport (2) membrane protein structure, (3) lipid-protein interactions, (4) bioenergetics and transmembrane transport mechanisms, and (5) specific examples of membrane protein systems and their function (channels, transporters, pumps, receptors). Emphasis will be placed on biophysical approaches in these areas. The primary literature will be the main source of reading.

Instructor(s): E. Perozo Terms Offered: Autumn

Equivalent Course(s): MGCB 32300

BCMB 32400. X-ray Crystallography and Cryo-Electron Microscopy. 100 Units.

The Department of Biochemistry and Molecular Biology is offering a full-credit structural biology course in the summer quarter. The course aims to provide students with the theoretical and applied knowledge on the use of modern structural biology methods, namely x-ray crystallography and cryo-electron microscopy. The course will cover both methods over three weeks of lectures and hands-on laboratory sessions, including a data-collection visit to the synchrotron at Argonne National Lab and collection of microscopy images at the Advanced Electron Microscopy Facility at UChicago. Students will be taught x-ray diffraction theory, strategies to solve the phase problem, principles of electron microscopy and optics, single particle analysis, tomography, model building and validation with both techniques, and the most recent advances and innovations in both diffraction- and EM-based methods. The laboratory sessions will take registered students from sample preparation to model refinement and building using state-of-the-art experimental and computational tools.

Instructor(s): Engin Ozkan; Minglei Zhao Terms Offered: Summer

BCMB 32500. Bioorganic Chemistry. 100 Units.

A goal of this course is to relate chemical phenomena with biological activities. We cover two main areas: (1) chemical modifications of biological macromolecules and their potential effects; and (2) the application of spectroscopic methods to elucidate the structure and dynamics of biologically relevant molecules.

Equivalent Course(s): CHEM 32500

BCMB 32600. Methods in Structural Biology. 100 Units.

This course aims to provide students with the theoretical and applied knowledge on the use of modern structural biology methods, namely x-ray crystallography, cryo-electron microscopy and nuclear magnetic resonance spectroscopy. The course includes lectures and hands-on laboratory sessions, including a data-collection visit to the synchrotron at Argonne National Lab, collection of microscopy images at the Advanced Electron Microscopy Facility at UChicago, and data collection at our local NMR facility. The lectures will include x-ray diffraction theory, strategies to solve the phase problem, principles of electron microscopy and optics, single particle analysis, tomography, various NMR techniques and structure calculations from 3D spectra, model building and validation, and recent advances. The laboratory sessions will take registered students from sample preparation to model refinement and building using state-of-the-art experimental and computational tools. Basic knowledge of protein chemistry (as provided in BCMB 30400) strongly recommended.

Instructor(s): Minglei Zhao, Engin Özkan, Stephen Meredith, Joseph Sachleben Terms Offered: Spring 2019

BCMB 39800. Selected Reading Topics: Biochemistry & Molecular Biology. 100 Units.

Subject matter for individual tutorial-based study is selected through prior consultation and is given under the guidance of a faculty member. The student and faculty member must indicate at time of registration whether the course will be taken on a letter grade or pass/fail basis.

Instructor(s): Staff Terms Offered: Summer, Autumn, Winter, Spring

Prerequisite(s): Consent of Department and Instructor

BCMB 39900. Intro To Research: BCMB. 300.00 Units.

Subject matter for individual tutorial-based study is selected through prior consultation and is given under the guidance of a faculty member. The student and faculty member must indicate at time of registration whether the course will be taken on a letter grade or pass/fail basis.

BCMB 40100. Research in Biochemistry and Molecular Biology. 300.00 Units.

The student conducts original investigation under the direction of a faculty member. The research is presented and defended as a dissertation in candidacy for the degree of Doctor of Philosophy.

Instructor(s): Staff Terms Offered: Summer, Autumn, Winter, Spring

Prerequisite(s): Completion of course requirements and Preliminary Examination at the Ph.D. level and approval of Chairman of the Department.

BCMB 70000. Advanced Study: Biochemistry & Molecular Biology. 300.00 Units.

Advanced Study: Biochemistry & Molecular Biology



COMMITTEE ON CANCER BIOLOGY

Chair

- Kay Macleod, Ben May Department for Cancer Research

Professors

- Erin Adams, Biochemistry and Molecular Biology
- Habibul Ahsan, Public Health Sciences
- Douglas Bishop, Radiation and Cellular Oncology
- Susan Cohn, Pediatrics
- Suzanne Conzen, Medicine
- John Cunningham, Pediatrics
- Glyn Dawson, Pediatrics
- M. Eileen Dolan, Medicine
- Wei Du, Ben May Department for Cancer Research
- Thomas Gajewski, Medicine
- Lucy Godley, Medicine
- David Grdina, Radiation and Cellular Oncology
- Geoffrey Greene, Ben May Department for Cancer Research
- Gregory Karczmar, Radiation and Cellular Oncology
- Stephen Kron, Molecular Genetics and Cell Biology
- Howard Halpern, Radiation and Cellular Oncology
- Michelle Le Beau, Medicine
- Ernst Lengyel, Obstetrics and Gynecology
- Anning Lin, Ben May Department for Cancer Research
- Mark Lingen, Pathology
- Olufunmilayo Olopade, Medicine
- Ilaria Rebay, Ben May Department for Cancer Research
- Marsha Rosner, Ben May Department for Cancer Research
- Hans Schreiber, Pathology
- Walter Stadler, Medicine
- Wei-Jen Tang, Ben May Department for Cancer Research
- Mitchel Villereal, Neurobiology, Pharmacology and Physiology
- Ralph R. Weichselbaum, Radiation and Cellular Oncology
- Amittha Wickrema, Medicine
- Yingming Zhao, Ben May Department for Cancer Research

Associate Professors

- Lev Becker, Ben May Department for Cancer Research
- Matthew Brady, Medicine
- Nikolai Dulin, Medicine
- Tong Chuan He, Surgery
- Fotini Gounari, Medicine
- Barbara Kee, Pathology
- Robert Keenan, Biochemistry and Molecular Biology
- Kay Macleod, Ben May Department for Cancer Research
- Peter Savage, Pathology
- Michael Thirman, Medicine
- Xiaoyang Wu, Ben May Department for Cancer Research

Assistant Professors

- Mark Applebaum, Pediatrics
- Shannon Elf, Ben May Department for Cancer Research
- Alexander Muir, Ben May Department for Cancer Research

- Daniel Catenacci, Medicine
- Jane Churpek, Medicine
- Kenneth Cohen, Medicine
- Jill de Jong, Pediatrics
- Bryan Dickinson, Chemistry
- Yu-Ying He, Medicine
- Jun Huang, IME
- Seungmin Hwang, Pathology
- Justin Kline, Medicine
- James LaBelle, Pediatrics
- Megan McNerney, Medicine
- Raymond Moellering, Chemistry
- Akash Patnaik, Medicine
- Russell Szmulewitz, Medicine
- Michael Spiotto, Radiation and Cellular Oncology

The Committee on Cancer Biology (CCB) provides multidisciplinary and integrated training in cancer biology with an emphasis on innovation and critical thinking in cancer research. The program provides doctoral students with the most up-to-date knowledge and research training with the goal of preparing students for leadership and research careers in academia, industry, clinical research, science journalism, advocacy and policy and other relevant areas of the biomedical workforce. The program prepares students to conduct research by offering a core curriculum that focuses on multiple aspects of cancer biology, including molecular mechanisms of cancer, tumor progression and metastasis, autophagy and tumor metabolism, cancer genomics, computational approaches and big data analysis, mechanisms of drug resistance and tumor heterogeneity, in addition to translational research approaches. With 60 faculty members from across the University of Chicago with diverse interests in all of these research areas, students have a broad choice of research concentrations to select from for their thesis research project.

The CCB is committed to fostering interactions amongst graduate students, postdoctoral fellows, and faculty, and has a consistent track record of success in mentorship with many trainees publishing their work in outstanding journals and going on to run their own research labs. This is achieved through our core curriculum, a weekly cancer biology seminar series, journal clubs, student research presentations, group research meetings, an annual retreat and symposia. All of our students attend the AACR meeting in their third year of graduate school and numerous other opportunities are available to our students to present their data at international meetings and symposia. Our dedicated program in cancer biology is one of the most established in the country and is supported by an NCI training grant in addition to valuable support from foundations allowing us to continue to recruit and train the next generation of expert cancer biologists.

In addition to formal course work, the program sponsors a student led journal club, a student/postdoctorate research presentation group, and an annual program retreat in which students and trainees present their research findings. In addition, the program co-sponsors the Ben May Symposium with the Ben May Department for Cancer Research. This symposium brings speakers of international renown to campus. Students and trainees also have the opportunity to attend national meetings and cancer biology workshops off campus. Through the auspices of the Ben May Department for Cancer Research, the Section of Hematology/Oncology, and the University of Chicago Cancer Research Center (an NCI designated Cancer Center), there are several additional seminar series and a clinical cancer research/basic science research translational conference. Thus, there is a thriving, interactive community of cancer researchers.

ADMISSION

Prospective students interested in obtaining the Ph.D. in cancer biology should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Cancer Biology as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- Completion of 9.5 course credits consisting of basic science, cancer biology and elective courses
- A preliminary examination
- A dissertation based on original research
- A final thesis examination

COMMITTEE ON CANCER BIOLOGY COURSES

CABI 30500	Heterogeneity in Human Cancer: Etiology and Treatment	100
CABI 30800	Cancer Biology I: Fundamentals in Cancer Biology	100

CABI 30810	Directed Readings in Cancer Immunology	75
CABI 30900	Cancer Biology II: Molecular Mechanisms in Cancer Biology	100
CABI 31000	BMSC All Stars	50
CABI 31100	Ethics in Scientific Research	50
CABI 31600	Cancer Biology IV: Hypothesis Design and Grant Writing Skills	100
CABI 31900	Protein Structure and Functions in Medicine	100
CABI 32000	Cancer Biology III: Translational Approaches in Cancer Biology	100
CABI 39000	Cancer Biology V: Introduction to Experimental Cancer Biology	50
CABI 39900	Readings: Cancer Biology	100
CABI 40100	Research: Cancer Biology	300.00
CABI 47300	Genomics and Systems Biology	100
CABI 70000	Advanced Study: Cancer Biology	300.00



GRADUATE PROGRAM IN CELL AND MOLECULAR BIOLOGY

Chair

- David Kovar

Faculty accepting students into their lab

Professors

- Douglas K. Bishop, Radiation & Cellular Oncology
- Edwin L. Ferguson
- Richard Fehon
- Margaret Gardel, Physics
- Benjamin Glick
- Michael Glotzer
- Jean Greenberg
- David Kovar
- Stephen J. Kron
- Ilaria Rebay, Ben May Department for Cancer Research
- John Reinitz, Statistics
- Lucia Rothman-Denes
- Jonathan P. Staley
- Aaron Turkewitz

Associate Professors

- Sally Horne-Badovinac
- Jocelyn Malmay
- Ed Munro
- Michael Rust
- Alex Ruthenburg

Assistant Professors

- Robert Carrillo
- Ellie Heckscher
- Heng-Chi Lee
- David Pincus

Faculty not accepting students into their lab

Professors

- Robert Josephs
- Bernard Roizman, Microbiology

Associate Professors

- Gayle K. Lamppa
- Laurens J. Mets

Emeritus Faculty

- Kwen Sheng Chiang
- Wolfgang Epstein
- Rochelle Easton Esposito
- Robert Haselkorn
- Anthony Mahowald
- Terence E. Martin
- Theodore L. Steck, Biochemistry & Molecular Biology
- Ursula B. Storb

- Bernard S. Strauss
- Edwin W. Taylor

In the graduate program in cell and molecular biology, the Ph.D. degree places great emphasis on rigorous, didactic preparation in cell biology, molecular biology, and genetics, and focuses on choosing questions, defining experimental approaches, and interpreting data. Once qualified, advanced students choose from a wider range of opportunities for research in cell biology, molecular biology, genetics, developmental biology, plant biology, and microbiology. Of special interest is the design of interdisciplinary programs that emphasize the frontiers of biology.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The graduate program in cell and molecular biology offers a program of study leading to the Doctor of Philosophy in molecular genetics and cell biology. A Ph.D. candidate must fulfill certain formal coursework requirements, pass one preliminary and one qualifying examination, and present a satisfactory dissertation describing the results of original research.

The program expects knowledge of and proficiency in cell biology, molecular biology, and genetics. This requirement will normally be met by fulfilling the formal coursework described here, but detailed degree programs are flexible. Courses taken at other institutions, in other departments, or as part of the Pritzker School of Medicine curriculum may substitute for CMB courses with approval of the curriculum committee. To fulfill the requirements for a Ph.D., nine graded courses are required. In the program in cell and molecular biology, a student must take one course in each of three areas during the first year:

- Cell biology
- Molecular biology
- Genetics

In addition to these core courses, a second course in one of these areas is required to develop greater proficiency in a subdiscipline. The total of four required courses can be selected from among the following courses: MGCB 31200 Molecular Biology I, MGCB 31300 Molecular Biology-II, MGCB 31400 Genetic Analysis of Model Organisms, MGCB 31600 Cell Biology I, and MGCB 31700 Cell Biology II. Three additional graded electives must be taken, one of which may be a reading course. The electives can be selected according to the student's interests and the availability of courses.

A student is also required to do three laboratory rotations before selecting an advisor and laboratory to pursue a Ph.D. dissertation. These rotations will be graded, and two will count towards the nine courses required for the Ph.D. All students are required to serve as a teaching assistant for two quarters.

Students select a thesis advisor and begin laboratory research by the tenth month of the first year. To complete the Ph.D. degree, they must prepare, under the general direction of an appointed doctoral committee, a dissertation based upon their original research. Students are also required to submit, if not publish, at least one first author paper prior to their defense. A public seminar describing the results of the dissertation research must be presented and the dissertation must be successfully defended before the doctoral committee.

ADMISSIONS

For information about applying to our graduate program, please visit our website at <http://molbio.bsd.uchicago.edu>.

MOLECULAR GENETICS AND CELL BIOLOGY COURSES

MGCB 30400. Protein Fundamentals. 100 Units.

The course covers the physical-chemical phenomena that define protein structure and function. Topics include: the principles of protein folding, molecular motion and molecular recognition; protein evolution, design and engineering; enzyme catalysis; regulation of protein function and molecular machines; proteomics and systems biology. Workshop on X-ray Crystallography: The workshop is an addendum to Protein Fundamentals and is required for all BCMB students. This one week workshop will provide students with an intensive introduction to protein structure determination by x-ray crystallography. In addition to lectures, an extensive laboratory component will give students the opportunity to carry out protein crystallization, data collection (at Argonne), structure determination, refinement, model building and validation.

Instructor(s): E. Ozkan, D. Arac
Terms Offered: Autumn
Equivalent Course(s): BCMB 30400, HGEN 30400

MGCB 31200. Molecular Biology I. 100 Units.

Nucleic acid structure and DNA topology; methodology; nucleic-acid protein interactions; mechanisms and regulation of transcription in eubacteria, and of replication in eubacteria and eukaryotes; mechanisms of genome and plasmid segregation in eubacteria.

Instructor(s): L. Rothman-Denes
Terms Offered: Winter
Equivalent Course(s): BCMB 31200, DVBI 31200

MGCB 31300. Molecular Biology-II. 100 Units.

The content of this course covers the mechanisms and regulation of eukaryotic gene expression at the transcriptional and post-transcriptional levels. Our goal is to explore research frontiers and evolving methodologies. Rather than focusing on the elemental aspects of a topic, the lectures and discussions highlight the most significant recent developments, their implications and future directions.

Instructor(s): J. Staley, A. Ruthenburg Terms Offered: Spring

Prerequisite(s): Molecular Biology I (MGCB 31200) or by special permission of an instructor

Equivalent Course(s): DVBI 31300, BCMB 31300

MGCB 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Equivalent Course(s): BCMB 31400, DVBI 31400, HGEN 31400

MGCB 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion.

Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn

Equivalent Course(s): DVBI 31600, BCMB 31600, HGEN 31600

MGCB 31700. Cell Biology II. 100 Units.

This course covers the mechanisms with which cells execute fundamental behaviors. Topics include signal transduction, cell cycle progression, cell growth, cell death, cancer biology, cytoskeletal polymers and motors, cell motility, cytoskeletal diseases, and cell polarity. Each lecture will conclude with a dissection of primary literature with input from the students. Students will write and present a short research proposal, providing excellent preparation for preliminary exams.

Instructor(s): M. Glotzer, D. Kovar Terms Offered: Winter

Prerequisite(s): For undergraduates: Three quarters of a Biological Sciences Fundamentals sequence.

Equivalent Course(s): BCMB 31700, DVBI 31700, BIOS 21238

MGCB 31900. Introduction to Research. 100 Units.

Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students.

Instructor(s): Staff Terms Offered: Autumn, Winter

Equivalent Course(s): GENE 31900, DVBI 31900, BCMB 31900, HGEN 31900

MGCB 32000. Quantitative Analysis of Biological Dynamics. 100 Units.

The basic focus of the course will be quantitative approaches to understanding organization and dynamics at the molecular, subcellular and cellular levels, and will rest on three pillars - modern imaging and image analysis, quantitative analysis and presentation of data, mathematical modeling and computer simulations.

Instructor(s): Edwin Munro; Michael Rust Terms Offered: Spring

Equivalent Course(s): DVBI 32000

MGCB 32100. Senior Graduate Student Ethics. 100 Units.

This course explores specific ethical dilemmas that may arise in laboratory settings. The format of this course will provide opportunities for all students to voice their questions and opinions. Student groups of 4-5 will act as a review board during each session. Class time will center around the case, the conclusions of the review board, and the steps that should be taken to remedy the situation, if any. Faculty will guide and stimulate discussion in each case. Faculty will also provide any relevant University bylaws and/or NIH guidelines. Following the session, review board members will submit a formal 1-2 page justified decision in writing to the instructor. Successful completion of the course requires active participation in group presentations and general class discussions as well as joint submission of review board summaries.

Instructor(s): K. Moffat Terms Offered: Spring

MGCB 32300. Structure and Function of Membrane Proteins. 100 Units.

This course will be an in depth assessment of the structure and function of biological membranes. In addition to lectures, directed discussions of papers from the literature will be used. The main topics of the courses are: (1) Energetic and thermodynamic principles associated with membrane formation, stability and solute transport (2) membrane protein structure, (3) lipid-protein interactions, (4) bioenergetics and transmembrane transport mechanisms, and (5) specific examples of membrane protein systems and their function (channels, transporters, pumps, receptors). Emphasis will be placed on biophysical approaches in these areas. The primary literature will be the main source of reading.

Instructor(s): E. Perozo Terms Offered: Autumn

Equivalent Course(s): BCMB 32300

MGCB 32500. Quantitative Analysis of Biological Dynamics II. 100 Units.

This is a workshop style course in which students will work closely with instructors and TAs to implement mathematical/computational approaches to address specific research problems of interest to individual students. The course is open to all students who have taken MGCB/DRSB 32000 or its equivalent, or who have otherwise acquired a basic working knowledge of one or more programming languages (e.g. R, Matlab, Python). The course will function as follows: prior to enrollment, each interested student will meet with the course instructors to discuss an open scientific question they wish to address using mathematical/computational approaches. The course will begin with a short presentation from each student describing the problem they propose to study, followed by a discussion with the rest of the students and the course instructors about possible approaches. The course instructors and TAs will then meet one-on-one with students over the course of the quarter to help students implement the proposed strategies and adapt to challenges that emerge through this process. Students will reconvene weekly as a group to report on their progress and discuss alternative approaches.

Instructor(s): E. Munro, M. Rust Terms Offered: Spring. Offered in alternating years beginning Spring 2020.

Prerequisite(s): MGCB 32000, DVBI 32000

Equivalent Course(s): DVBI 32550

MGCB 34300. Image Processing in Biology. 100 Units.

Whether one is trying to read radio signals from faraway galaxies or to understand molecular structures, it is necessary to understand how to read, interpret, and process the data that contain the desired information. In this course, we learn how to process the information contained in images of molecules as seen in the electron microscope. We also deal with the principles involved in processing electron microscope images, including the underlying analytical methods and their computer implementation.

Instructor(s): R. Josephs Terms Offered: Spring. Offered every other year in even years.

Prerequisite(s): For College students: Three quarters of a Biological Sciences Fundamentals sequence and one year of calculus

Equivalent Course(s): BIOS 21407

MGCB 35401. Gene Regulation. 100 Units.

This course covers the fundamental theory of gene expression in prokaryotes and eukaryotes through lectures and readings in the primary literature. Natural and synthetic genetic systems arising in the context of *E. coli* physiology and *Drosophila* development will be used to illustrate fundamental biological problems together with the computational and theoretical tools required for their solution. These tools include large-scale optimization, image processing, ordinary and partial differential equations, the chemical Langevin and Fokker-Planck equations, and the chemical master equation. A central theme of the class is the art of identifying biological problems which require theoretical analysis and choosing the correct mathematical framework with which to solve the problem.

Terms Offered: To be determined; may not be offered in 2019-2020.

Prerequisite(s): Consent of instructor

Equivalent Course(s): ECEV 35400, CAAM 35400, STAT 35400

MGCB 35420. Stochastic Processes in Gene Regulation. 100 Units.

This didactic course covers the fundamentals of stochastic chemical processes as they arise in the study of gene regulation. The central object of study is the Chemical Master Equation and its coarse-grainings at the Langevin/Fokker-Planck, linear noise, and deterministic levels. We will consider both mathematical and computational approaches in contexts where there are both single and multiple deterministic limits.

Instructor(s): J. Reinitz Terms Offered: To be determined; may not be offered in 2019-2020.

Prerequisite(s): Consent of instructor.

Equivalent Course(s): ECEV 35420, CAAM 35420, STAT 35420

MGCB 35600. Vertebrate Development. 100 Units.

This advanced-level course combines lectures, student presentations, and discussion sessions. It covers major topics on the developmental biology of embryos (e.g. formation of the germ line, gastrulation, segmentation, nervous system development, limb patterning, organogenesis). We make extensive use of the primary literature and emphasize experimental approaches including embryology, genetics, and molecular genetics.

Instructor(s): V. Prince, P. Kratsios. Terms Offered: Spring

Prerequisite(s): For Biological Sciences majors: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20189 or BIOS 20190

Equivalent Course(s): ORGB 33600, BIOS 21356, DVBI 35600

MGCB 36100. Plant Development and Molecular Genetics. 100 Units.

Genetic approaches to central problems in plant development will be discussed. Emphasis will be placed on embryonic pattern formation, meristem structure and function, reproduction, and the role of hormones and environmental signals in development. Lectures will be drawn from the current literature; experimental approaches (genetic, cell biological, biochemical) used to discern developmental mechanisms will be emphasized. Graduate students will present a research proposal in oral and written form; undergraduate students will present and analyze data from the primary literature, and will be responsible for a final paper.

Instructor(s): J. Greenberg Terms Offered: Spring

Prerequisite(s): For undergraduates only: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235.

Equivalent Course(s): ECEV 32900, DVBI 36100, BIOS 23299

MGCB 36400. Developmental Mechanisms. 100 Units.

This course provides an overview of the fundamental questions of developmental biology, with particular emphasis on the genetic, molecular and cell biological experiments that have been employed to reach mechanistic answers to these questions. Topics covered will include formation of the primary body axes, the role of local signaling interactions in regulating cell fate and proliferation, the cellular basis of morphogenesis, and stem cells.

Instructor(s): E. Ferguson, R. Fehon Terms Offered: Winter

Prerequisite(s): For undergraduates only: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20189, BIOS 20190, or BIOS 20235.

Equivalent Course(s): DVBI 36400, BIOS 21237

MGCB 39200. Readings: MGCB. 100 Units.

Reading course in an area of developmental biology of special interest to the student. Must be prearranged with a faculty member and preapproved by the chair of the Curriculum Committee.

MGCB 39900. Tutorial: MGCB. 100 Units.

MGCB 47000. Thesis Research: MGCB. 300.00 Units.

Laboratory research for senior graduate students.

MGCB 47100. Non-Thesis Rsch: MGCB. 300.00 Units.

Laboratory research for first and second year graduate students.

MGCB 70000. Advanced Study: Molecular Genetics & Cell Biology. 300.00 Units.

Advanced Study: Molecular Genetics & Cell Biology



COMMITTEE ON CLINICAL AND TRANSLATIONAL SCIENCE

Department Website: <http://chess.uchicago.edu/CCTS>

The Committee on Clinical & Translational Science (CCTS) is a freestanding academic unit housed within the Biological Sciences Division. Our mission is to enhance multidisciplinary training in clinical and translational science at the University of Chicago. We seek to offer high-quality curriculum and mentorship to a new generation of researchers who will synthesize social and biological science to significantly advance medical science and practice.

With joint input from CHeSS and the Institute for Translational Medicine, the CCTS mobilizes faculty from across the University of Chicago to enhance course offerings at the university in clinical and translational science. We organize these courses into coherent areas of concentration designed to provide graduate-level trainees, postdoctoral fellows, and junior faculty with state-of-the-art skills in the field. For more information contact Kelsey Bogue, committee administrator at kbogue@bsd.uchicago.edu. You can also visit our website at chess.uchicago.edu/CCTS.

Current Areas of Concentration include:

- Comparative Effectiveness Research
- Translational Informatics
- Health Services Research
- Quality & Safety
- Clinical Research
- Community-Based Research
- Global Health
- Pharmacogenomics

In the "courses" tab there is a list of graduate courses that have been offered over the past two years. Refer to the CCTS section of the CHeSS website for current course offerings and prerequisites for each course:

<http://chess.uchicago.edu/CCTS>

CLINICAL AND TRANSLATIONAL SCIENCE COURSES

CCTS 3130. Infectious Disease Epidemiology; Networks and Modeling. 100 Units.

Instructor(s): M. David, J. Schneider Terms Offered: Spring 2015

Prerequisite(s): PBHS 30700 or PBHS 30900 or introductory epidemiology or consent of instructor.

CCTS 32411. Mediation, Moderation, and Spillover Effects. 100 Units.

This course is designed for graduate students and advanced undergraduate students from social sciences, statistics, health studies, public policy, and social services administration who will be or are currently involved in quantitative research. Research questions about why an intervention works, for whom, under what conditions, and whether one individual's treatment could affect other individuals' outcomes are often key to the advancement of scientific knowledge yet pose major analytic challenges. This course introduces cutting-edge theoretical concepts and methodological approaches with regard to mediation of intervention effects, moderated intervention effects, and spillover effects in a variety of settings. The course content is organized around six case studies. In each case, students will be involved in critical examinations of a working paper currently under review. Background readings will reflect the latest developments and controversies. Weekly labs will provide supplementary tutorials and hands-on experiences with mediation and moderation analyses. All students are expected to contribute to the knowledge building in class through participation in discussions. Students are encouraged to form study groups, while the two written assignments are to be finished and graded on an individual basis.

Instructor(s): G. Hong Terms Offered: Spring

Note(s): CHDV Distribution, Methods

Equivalent Course(s): CHDV 32411, PSYC 32411, STAT 33211, PBPL 29411, SOCI 30318

CCTS 38300. Health Economics and Public Policy. 100 Units.

This course analyzes the economics of health and medical care in the United States with particular attention to the role of government. The first part of the course examines the demand for health and medical and the structure and the consequences of public and private insurance. The second part of the course examines the supply of medical care, including professional training, specialization and compensation, hospital competition, and finance and the determinants and consequences of technological change in medicine. The course concludes with an examination of recent proposals and initiatives for health care reform.

Instructor(s): Meltzer, D Terms Offered: Spring

Prerequisite(s): PBPL 20000 or ECON 20000 and one undergraduate course in quantitative research methods (Statistics or Econometrics) or the equivalent or consent of the instructor

Equivalent Course(s): PBHS 38300, ECON 27700, PBPL 28300, PPHA 38300

CCTS 40004. Advanced Clinical Pharmacology I. 50 Units.

This course provides an interactive introduction to fundamental principles of the practice of clinical pharmacology relevant to drug development and personalized therapeutics. Topics include: pharmacokinetics, drug metabolism, protein binding, absorption and renal and hepatic elimination, pharmacodynamics, introduction to modeling methods, evaluation of adverse events, and pre-clinical and clinical elements of drug development.

Instructor(s): N. Pinto, M. Sharma Terms Offered: Autumn

Prerequisite(s): MEDC 30777, equivalent Intro to Pharmacology course, or instructor approval.

CCTS 40300. Signal Transduction and Disease. 100 Units.

Topics include receptor ligands, membrane receptor tyrosine kinases and phosphatases, G proteins, proto-oncogenes, signaling pathways, cytoplasmic protein kinases and phosphatases, transcription factors, receptor-nucleus signaling, development and cancer, genetic dissection of signaling pathways, cell growth and cell proliferation, interplay of cell cycle regulators, cell cycle progression and apoptosis, and sensing of hypoxia and mechanical stimuli. The role of signaling in disease is a theme throughout the course.

Instructor(s): N. Dulin Terms Offered: Winter

Equivalent Course(s): MPMM 30600

CCTS 40400. Health Disparities in Breast Cancer. 100 Units.

Across the globe, breast cancer is the most common women's cancer. In the last two decades, there have been significant advances in breast cancer detection and treatment that have resulted in improved survival rates. Yet, not all populations have benefited equally from these improvements, and there continues to be a disproportionate burden of breast cancer felt by different populations. In the U.S., for example, white women have the highest incidence of breast cancer but African-American women have the highest breast cancer mortality overall. The socioeconomic, environmental, biological, and cultural factors that collectively contribute to these disparities are being identified with a growing emphasis on health disparities research efforts. In this 10-week discussion-based course students will meet twice weekly and cover major aspects of breast cancer disparities.

Instructor(s): E. Dolan, S. Conzen Terms Offered: Winter

Prerequisite(s): BIOS 25108

Equivalent Course(s): CCTS 20400, HLTH 20400, BIOS 25327

CCTS 40500. Machine Learning & Advanced Analytics for Biomedicine. 100 Units.

The age of ubiquitous data is rapidly transforming scientific research, and advanced analytics powered by sophisticated learning algorithms is uncovering new insights in complex open problems in biology and biomedicine. The goal of this course is to provide an introductory overview of the key concepts in machine learning, outlining the potential applications in biomedicine. Beginning from basic statistical concepts, we will discuss concepts and implementations of standard and state of the art classification and prediction algorithms, and go on to discuss more advanced topics in unsupervised learning, deep learning architectures, and stochastic time series analysis. We will also cover emerging ideas in data-driven causal inference, and demonstrate applications in uncovering etiological insights from large scale clinical databases of electronic health records, and publicly available sequence and omics datasets. The acquisition of hands-on skills will be emphasized over machine learning theory. On successfully completing the course, students will have acquired enough knowledge of the underlying machinery to intuit and implement solutions to non-trivial data science problems arising in biology and medicine.

Instructor(s): Ishanu Chattopadhyay Terms Offered: Winter. Not offered every year

Prerequisite(s): Rudimentary knowledge of probability theory, and basic exposure to scripting languages such as python/R is required. This course does not qualify in the Biological Sciences major.

Equivalent Course(s): BIOS 29208, CCTS 20500

CCTS 41005. The Making of the "Good Physician": Virtue Ethics and the Development of Moral Character in Medicine. 100.00 Units.

This multi-disciplinary course draws insights from medicine, sociology, moral psychology, philosophy, ethics and theology to explore answers to the unique challenges that medicine faces in the context of late modernity: How does one become a "good physician" in an era of growing moral pluralism and health care complexity? Students will engage relevant literature from across these disciplines to address issues regarding the legitimate goals of medicine, medical professionalism, the doctor-patient relationship, vocation and calling, the role of religion in medicine, and character development in medical education. The course will first introduce the challenges that moral pluralism in contemporary society presents to the profession of medicine along with the subsequent calls for a renewed pursuit of clinical excellence in today's complex health care system. It will then survey the resurgence of a philosophical discipline (virtue ethics) that has begun to shape contemporary debate regarding what types of "excellences" are needed for a good medical practice dominated by medical science and technology.

Instructor(s): John Yoon Terms Offered: Autumn Spring Winter

Note(s): This course is limited to those who have been accepted into the Emerging Scholars Cohort in Bioethics (Hyde Park Institute, <https://hydeparkinstitute.org/esc>). Depending on space availability, other students interested in enrolling will need prior approval from Course instructor(s). This course is a yearlong course with several 2-hour lecture discussions throughout the year, 2 all-day Saturday sessions (Fall/Spring), and an off-site practicum. Registration in Autumn, Winter, and Spring Courses is required. The spring quarter course will be worth 50 units.

Equivalent Course(s): MEDC 31005, CCTS 21005

CCTS 41006. Discourse of Islamic Bioethics. 50 Units.

This course is a mentored and directed reading course that introduces students to critical concepts in Islamic theology and law that undergird normative ethical frameworks within Islam and exposes the student to exemplar works from the wide range of Islamic bioethics literature. The first part of the course will focus on the theoretical aspects of the Islamic moral and ethical tradition and cover scholarly contestations regarding Islamic moral theology as they relate to an Islamic bioethics. The latter half of course will focus on the practical aspects of the emerging field by considering research methods for the field and selected literature reviews of Islamic responses to pressing bioethical issues. Read more about the course at chess.uchicago.edu/CCTS

Instructor(s): Aasim Padela Terms Offered: Summer. Not offered every year

Prerequisite(s): None

CCTS 41008. Health Systems in Low- and Middle-Income Countries. 100 Units.

Strengthening health systems is imperative to achieving lasting improvements in health. This course provides students with a comprehensive overview of health systems in low- and middle-income countries. We will learn key frameworks and tools to analyze, assess and influence health systems in these contexts. The course is organized around core components of health systems, including service delivery, human resources for health, health financing, supply chain systems, governance, community engagement and information systems. Each class draws upon contemporary case studies from a variety of low- and middle-income countries to illustrate challenges, controversies and opportunities in these contexts. We will examine historical, social and political contexts, and key international, national and local stakeholders that influence health systems presently. We will consider the impact of external shocks, such as conflict, natural disasters, and economic and political crises, on the structure and functioning of health systems. Finally, recognizing the convergence between global and local, we will situate current challenges in the U.S. health system in a global context.

Instructor(s): Veena Sriram Terms Offered: Autumn. Not offered every year.

Prerequisite(s): Open to graduate students and third- and fourth-year undergraduate students. First- and second-year undergraduates interested in taking the course may write to the course instructor for permission.

Equivalent Course(s): CCTS 21008, HLTH 21008

CCTS 42003. Global Health Sciences III: Biological and Social Determinants of Health. 100 Units.

Global health is an interdisciplinary and empirical field, requiring holistic and innovative approaches to navigate an ever-changing environment in the pursuit of health equity. This course will emphasize specific health challenges facing vulnerable populations in low resource settings including in the United States and the large scale social, political, and economic forces that contribute to them through topical events and case studies. Students will study the importance of science and technology, key institutions and stakeholders; environmental impacts on health; ethical considerations in research and interventions; maternal and child health; health and human rights; international legal frameworks and global health diplomacy. Students will gain skills in technical writing as they construct position statements and policy briefs on global health issues of interest. Career opportunities in global health will be explored throughout the course.

Instructor(s): C. Olopade, O. Olopade Terms Offered: Spring Winter. This course is offered every Spring quarter on campus and every Winter quarter in Paris.

Prerequisite(s): This course does not meet the requirements for the Biological Sciences major.

Equivalent Course(s): CCTS 22003, BIOS 29814

CCTS 43007. Clinical and Health Services Research: Methods and Applications. 100 Units.

This course will introduce the interdisciplinary field of clinically-oriented health services research with a focus on policy-related implications. Through exposure to theoretical foundations, methodologies, and applications, students without significant investigative experience will learn about the design and conduct of research studies. We will cover the integration of research within the stages of translational medicine, and how science conducted across the translational medicine spectrum informs policy through purveyors of clinical services (e.g. physicians, hospitals), government, insurers, and professional societies. We will use the examples of postmenopausal hormone replacement therapy and autologous bone marrow transplantation to illustrate pitfalls in the progression from basic science research to clinical trials leading to diffusion in clinical medicine that can complicate the creation of logical, evidence-based practice guidelines, reimbursement, and clinical practice.

Instructor(s): Greg Ruhnke Terms Offered: Spring

Equivalent Course(s): PBPL 23007, CCTS 21007, HLTH 21007

CCTS 43200. Infectious Disease Epidemiology; Networks and Modeling. 100 Units.

This intermediate-level epidemiology course directed by two infectious disease epidemiologist-physicians will provide an up to date perspective on forgotten, contemporary and emerging infections. The course lectures and readings will provide a rigorous examination of the interactions among pathogens, hosts and the environment that produce disease in diverse populations. In addition to the demographic characteristics and the behaviors of individuals that are associated with a high risk of infection, we will examine complex aspects of the environment as they pertain to disease transmission. These include poverty, globalization, social networks, public health, and racial and ethnic disparities. Methodologic approaches to infectious disease epidemiology that will be covered include traditional study designs, molecular epidemiology, social network analysis, modeling, and network science. Local and global approaches will be applied to case studies from the United States, Asia, and Africa.

Instructor(s): TBN Terms Offered: TBD. Not offered in 2019-20.

Prerequisite(s): Biology majors: Three quarters of a Biological Sciences Fundamentals sequence. HSTD 30700 or HSTD 30910 or introductory epidemiology or consent of instructor

Equivalent Course(s): BIOS 25419, PBHS 31300, MEDC 31300

CCTS 45000. Introduction to Biostatistics. 100 Units.

This course will provide an introduction to the basic concepts of statistics as applied to the bio-medical and public health sciences. Emphasis is on the use and interpretation of statistical tools for data analysis. Topics include (i) descriptive statistics; (ii) probability and sampling; (iii) the methods of statistical inference; and (iv) an introduction to linear and logistics regression.

Instructor(s): J. Cursio Terms Offered: Summer

Prerequisite(s): 2 quarters of pre-calculus

Note(s): *In addition to the course, there is a statistical computing workshop.

Equivalent Course(s): PBHS 32100

CCTS 45100. Clinical Epidemiology. 100 Units.

Clinical epidemiology is the "application of epidemiologic principles and methods to problems encountered in clinical medicine." This course introduces the basic principles of epidemiologic study design, analysis and interpretation, with a particular focus on clinical applications. The course includes lectures and discussions based on critical appraisal of significant research articles. The course is primarily intended for, but not restricted to, students with prior clinical training. Public Health Sciences 30700 and 30900 may not both be taken for credit, either will fulfill the basic epidemiology requirement for the MSCP in Public Health Sciences and either will serve as the epidemiology prerequisite for Public Health Sciences 31001.

Instructor(s): B. Chiu, D. Lauderdale Terms Offered: Summer

Prerequisite(s): Introductory statistics recommended, may be taken concurrently.

Equivalent Course(s): PBHS 30700

CCTS 45200. Fundamentals of Health Services Research: Theory, Methods and Applications. 100 Units.

This course is designed to provide an introduction to the fundamentals of health services research. The basic concepts of health services research will be taught with emphasis on both their social scientific foundations and the methods needed for their practical application to empirically relevant research. Theoretical foundations will draw on principles from economics, sociology, psychology, and the other social sciences. Methodological topics to be covered will include techniques for data collection and analysis, including outcomes measurement, survey methods, large data set research, population-based study design, community based participatory research, research based in clinical settings, qualitative methods, cost-effectiveness analysis, and tools of economic and sociological analysis. The theoretical and empirical techniques taught will emphasize those relevant to the examination of health care costs, quality, and access. Major applications will include: measurement and improvement of health care quality, analysis of health disparities, analysis of health care technology, and analysis of health care systems and markets.

Instructor(s): D. Meltzer, M. H. Chin Terms Offered: Summer

Equivalent Course(s): PPHA 47900

CCTS 45400. Advanced PCOR Methods: Cost Effectiveness and Modeling. 50 Units.

This course is the first module of a two module sequence in Advanced Patient Centered Outcomes Research (PCOR). This module includes an overview of cost effectiveness analysis, modeling (both markov and probabilistic sensitivity analysis), and discrete events and agent based simulation. Students will gain hands on experience with software such as Treeage, Simio, and Net logo. The second course will be taught in Winter Quarter and will cover topics in evidence generation and synthesis. Students and postdocs must contact Kelsey Bogue at kbogue@bsd.uchicago.edu with a CV and unofficial transcript (if current UChicago student) for approval to attend the course. Appropriate prerequisites include SSAD 45600 and PPHA 38300, or other introductory courses in cost effectiveness analysis or statistical modeling.

CCTS 46001. Fundamentals of Quality Improvement and Patient Safety (QI & PS 101) 25 Units.

Quality Improvement & Patient Safety was designed for faculty and staff at University of Chicago Medicine with the support of the Center for Clinical and Translational Science (CCTS). The course provides an overview of concepts and methodologies for improving the quality and safety of care. Participants will design quality improvement projects using skills learned in class. In addition, UCMC leaders will speak on key topics throughout the course. Participants will become familiar with tools for improving quality of care and service delivery, such as the Model for Improvement and Lean Performance Improvement. Participants will design an actual quality improvement project and complete a personal improvement project using skills learned in the class. Participants will understand the factors impacting the delivery of safe and high quality care in health care organizations such as teamwork, good communication and organization culture. Participants will understand "Systems Thinking" and other key concepts in patient safety such as Human Factors and Reliability. Participants will understand the key role of QI in today's health care environment as a mechanism for improving organizational effectiveness and the patient experience. The course is comprised of seven classes total. Faculty, staff, and students/trainees at the University of Chicago Medical Center are welcome to audit the course and should contact Kelsey Bogue at kbogue@bsd.uchicago.edu to register.

Instructor(s): A. Davis, L. Botwinick Terms Offered: Autumn

CCTS 47000. Bioinformatics Analysis of High-Throughput Genomics Data. 100 Units.

Biomedical researchers all around the world are starting to exploit the power of high-throughput genomics technologies to address an increasingly diverse range of biological problems. The primary bottleneck in using big genomics data including Next Generation Sequencing (NGS), is the bioinformatics; high-throughput genomics data analysis is not trivial and requires access to dedicated High Performing Computing (HPC) infrastructures, to address the CPU intensive and memory demanding analysis tasks. The focus of this course is training researchers on the use of computational technologies and the latest bioinformatics analysis tools, required to deal with big genomics data. This training will cover a complete range of technologies and applications from the basics of computational thinking to the large-scale data analysis on Linux and HPC infrastructures. Topics include microarray data analysis using R, the implementation of open source based NGS analysis workflows for RNA-seq data, genomics visualization tools (e.g., IGV, UCSC, circos, etc.) and tools that can perform the most common everyday tasks for bioinformaticians of "omics" data. The course will cover in-depth practical theory and hands-on training.

Instructor(s): Sam Volchenbom, Jorge Andrade, Riyue Bao, Kyle Terms Offered: Autumn
Equivalent Course(s): CCTS 27000

CCTS 47001. Advanced Community Based Participatory Research (CBPR) Training Program I. 000 Units.

The goal of health-related research is to improve the lives of people in the community studied. In traditional research, the community is not actively involved in designing the projects. Community-based participatory research is a partnership approach to research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process. The Advanced CBPR Training Program is designed to help meet the growing need and demand for educational resources that help build the knowledge and skills needed to develop and sustain effective CBPR partnerships. The Program consists of six sessions that are offered on various Fridays throughout the year.

Instructor(s): D. Miller, D. Burnet Terms Offered: Autumn. Students must register for two-course sequence in order to receive course credit; CCTS 47001 and CCTS 47002 in Winter Quarter. Students must also register online. Contact CCTS administrator Kelsey Bogue at kbogue@bsd.uchicago.edu for more details.

CCTS 47002. Advanced Community Based Participatory Research (CBPR) Training Program II. 25 Units.

The goal of health-related research is to improve the lives of people in the community studied. In traditional research, the community is not actively involved in designing the projects. Community-based participatory research is a partnership approach to research that equitably involves community members, organizational representatives, and academic researchers in all aspects of the research process. The Advanced CBPR Training Program is designed to help meet the growing need and demand for educational resources that help build the knowledge and skills needed to develop and sustain effective CBPR partnerships. The Program consists of six sessions that are offered on various Fridays throughout the year.

Instructor(s): D. Miller, D. Burnet Terms Offered: Winter. Students must register for two-course sequence in order to receive course credit; CCTS 47001 and CCTS 47002 in Winter Quarter. Students must also register online. Contact CCTS administrator Kelsey Bogue at kbogue@bsd.uchicago.edu for more details.

CCTS 47005. Methods in Health and Biomedical Informatics. 100 Units.

Most Health and Biomedical Informatics (HBMI) Graduate Programs around the country have independently come to the conclusion that the computational methods that informatics graduate students need to be familiar with is too broad and numerous to be addressed by a series of independent courses. Therefore, most programs have created a set of integrated courses that expose the students to a wide variety of informatics methods in short modules. Typically, these required methods series are organized as a series of required courses taken during the first year of graduate study. This course is the result of discussions by Health and Biomedical Informatics researchers and educators from the Chicago Biomedical Informatics Training (CBIT) initiative. This course is designed as the first course of a year-long sequence and is worth 100 units. Registration for the full year is expected.

Instructor(s): S. Volchenbom, D. McClintock, UIC & NU faculty Terms Offered: Autumn. Course location rotates between Northwestern's downtown campus, UChicago, and UIC

Prerequisite(s): Basic understanding of Python programming language; prior or simultaneous enrollment in Health & Biomedical Informatics (HBMI) intro course.

CCTS 47006. Methods in Health and Biomedical Informatics II. 100 Units.

Most Health and Biomedical Informatics (HBMI) Graduate Programs around the country have independently come to the conclusion that the computational methods that informatics graduate students need to be familiar with is too broad and numerous to be addressed by a series of independent courses. Therefore, most programs have created a set of integrated courses that expose the students to a wide variety of informatics methods in short modules. Typically, these required methods series are organized as a series of required courses taken during the first year of graduate study. This course is the result of discussions by Health and Biomedical Informatics researchers and educators from the Chicago Biomedical Informatics Training (CBIT) initiative. This course is designed as the second course of a year-long sequence and is worth 100 units. Registration for the full year is expected.

Instructor(s): David McClintock and Samuel Volchenbom; Northwestern and UIC faculty Terms Offered: Winter. Course location rotates between Northwestern's downtown campus, UChicago, and UIC

Prerequisite(s): CCTS 47005 in Autumn Quarter.

CCTS 47007. Methods in Health and Biomedical Informatics III. 100 Units.

Most Health and Biomedical Informatics (HBMI) Graduate Programs around the country have independently come to the conclusion that the computational methods that informatics graduate students need to be familiar with is too broad and numerous to be addressed by a series of independent courses. Therefore, most programs have created a set of integrated courses that expose the students to a wide variety of informatics methods in short modules. Typically, these required methods series are organized as a series of required courses taken during the first year of graduate study. This course is the result of discussions by Health and Biomedical Informatics researchers and educators from the Chicago Biomedical Informatics Training (CBIT) initiative. This course is designed as the third course of a year-long sequence and is worth 100 units. Registration for the full year is expected.

Instructor(s): David McClintock and Samuel Volchenbom; Northwestern and UIC faculty Terms Offered: Spring. Course location rotates between Northwestern's downtown campus, UChicago, and UIC

Prerequisite(s): CCTS 47005 in Autumn Quarter and CCTS 47006 in Winter Quarter.

CCTS 47100. Bioinformatics Analysis of Integrative 'Omics Data. 100 Units.

The workshop will focus on the integration of multiple 'omic/clinical data sets to answer complex questions on Biomedical research. Strong focus will be placed on the use of NGS based ChIP-seq analysis pipeline and its integration with gene expression and clinical information.

Equivalent Course(s): CCTS 27100



COMMITTEE ON COMPUTATIONAL NEUROSCIENCE

Chair

- David Freedman, Neurobiology

Professors

- Yali Amit, Statistics
- Ed Awh, Psychology
- Jack Cowan, Mathematics
- Jean Decety, Psychology
- Ruth Anne Eatock, Neurobiology
- David Freedman, Neurobiology
- William (Bill) Green, Neurobiology
- John Goldsmith, Linguistics
- Melina Hale, Organismal Biology and Anatomy
- Christian Hansel, Neurobiology
- Nicholas Hatsopoulos, Organismal Biology and Anatomy
- Leslie Kay, Psychology
- Yamuna Krishnan, Chemistry
- Daniel Margoliash, Organismal Biology and Anatomy
- John Maunsell, Neurobiology
- Howard Nusbaum, Psychology
- Eduardo Perozo, Biochemistry and Molecular Biology
- Brian Prendergast, Psychology
- S. Murray Sherman, Neurobiology
- Steven Shevell, Psychology
- V. Leo Towle, Neurology
- Wim van Drongelen, Pediatrics
- Ed Vogel, Psychology
- Xiaoxi Zhuang, Neurobiology

Associate Professors

- Jason MacLean, Neurobiology
- Sliman Bensmaia, Organismal Biology and Anatomy
- Wei Wei, Neurobiology

Assistant Professors

- Stephanie Cacioppo, Psychiatry and Behavioral Neuroscience
- Narayanan (Bobby) Kasthuri, Neurobiology
- Matthew Kaufman, Organismal Biology and Anatomy
- Stephanie Palmer, Organismal Biology and Anatomy
- Mark Sheffield, Neurobiology

The University of Chicago has a long tradition of innovative research in the neurosciences. K. C. Cole developed the voltage clamp here, Stephen Polyak and C. J. Herrick did pioneering work on the anatomy of the retina and brain, and Jack Cowan and Hugh Wilson were among the first to develop mathematical analyses of the dynamics of cortical neurons using non linear dynamics. This tradition is continued in the Committee on Computational Neuroscience, which draws on faculty from many departments in all four graduate divisions in the University to create a multidisciplinary program in neuroscience. Computational neuroscience is a relatively new area of inquiry that is concerned with how components of animal and human nervous systems interact to produce behaviors. Using quantitative and modeling methods, the interdisciplinary approach of computational neuroscience seeks to understand the function of the nervous system, natural behaviors and cognitive processes and to design human made devices that duplicate behaviors. Course work in computational neuroscience prepares students for research in neurobiology, psychology, or in the mathematical or engineering

sciences. Graduates from this program move to traditional academic careers, to careers in biomedical research or engineering, or to opportunities in the corporate world.

GRADUATE DEGREES

Students with undergraduate degrees in biology or psychology, any of the quantitative sciences or any of the engineering disciplines are welcome to apply for graduate study. Computational neuroscience is inherently interdisciplinary, and most students doing graduate work in this area will have strengths in one of the relevant areas and weaknesses in others. Program requirements in the committee are designed to correct background deficiencies, so students with uneven backgrounds should not hesitate to apply. A year of college level calculus is an absolute prerequisite. Ideally, applicants should have some collegiate level course work in biology (optimally including an introductory neurobiology course), an introductory psychology course, and some mathematics (such as linear algebra and elementary differential equations) beyond calculus. Students who have not had prior exposure to linear algebra and differential equations may be asked to take appropriate courses in these areas before taking the mathematics sequence within the computational neuroscience curriculum.

DOCTOR OF PHILOSOPHY

Students seeking the Ph.D. in computational neuroscience must take the nine formal courses in the computational neuroscience curriculum, and enroll for at least nine quarters of research. The formal courses are typically taken during the first two years and arranged into three themes. The neuroscience theme presents the basic concepts and phenomena in neuroscience. The mathematics theme presents the quantitative techniques required for a modern analysis of the nervous system and behavior. The courses in this theme have prior exposure to linear algebra and differential equations as a prerequisite. The computational neuroscience theme illustrates how quantitative methodologies are used to understand neurons and behavior. The courses in this theme have completion of a year of calculus as a prerequisite. Students must complete two laboratory rotations which can be started in the first year. Students can also take graduate courses offered by the Departments of Computer Science, Linguistics, Mathematics, Psychology and Statistics, or from any of the graduate programs in the Division of the Biological Sciences. Please consult the listings elsewhere in these *Announcements* or on the University of Chicago web page for current lists of such courses. Courses in engineering applications of computational neuroscience are also available through a limited reciprocal course arrangement with the Department of Biomedical Engineering at the Illinois Institute of Technology. Students must pass a qualifying examination with both written and oral components at the end of their second year. In addition to satisfying course requirements, students must write and defend a dissertation based on original and publishable research. Students are expected to participate in the ongoing computational neuroscience seminar series, as well as occasional workshops, that are conducted during their stay in the program.

M.D./PH.D. PROGRAM

Students interested in earning both an M.D. and a Ph.D. in computational neuroscience at the University of Chicago can follow one of two routes. The first is to apply to the Medical Science Training Program (MSTP) within the Pritzker School of Medicine. The MSTP training grant provides support for both the M.D. and Ph.D. components of the training. Second, a student in the Pritzker School of Medicine may take a leave of absence from the School of Medicine after the first two, preclinical years of medical training and apply to the Ph.D. program in the normal fashion. The student would then return to finish the two clinical years of medical studies after completing the Ph.D. Several of the preclinical medical school courses may be used as electives in the computational neuroscience Ph.D. program. Students with an undergraduate degree in one of the engineering disciplines can earn an M.D. through the Pritzker School of Medicine and a Ph.D. in Biomedical Engineering through the Department of Biomedical Engineering at the Illinois Institute of Technology (which is located approximately three miles north of the University of Chicago Campus). They are able to emphasize neural engineering in the Biomedical Engineering Ph.D. program and take courses in the Committee on Computational Neuroscience.

ADMISSION TO GRADUATE PROGRAMS

Admission to the Committee on Computational Neuroscience is coordinated through the Neuroscience Cluster within the Division of the Biological Sciences. The most recent admissions policies, including an on-line application, can be viewed at <https://biosciences.uchicago.edu/admissions>. Students preparing an application must submit transcripts of their undergraduate and prior graduate work, recent test scores from the general Graduate Record Exam, and three letters of recommendation under separate cover. Foreign applicants from non-English speaking nations must also submit TOEFL scores with their application materials. Applications are due by December 1st for students beginning their studies in the following autumn quarter.

FINANCIAL AID

Students enrolled in the Ph.D. program receive financial support in the form of a stipend and tuition payments as long as they remain in good standing. Students are encouraged to apply for individual fellowships from the National Science Foundation or other sources.

RESEARCH OPPORTUNITIES

Unparalleled research opportunities and facilities are available through the facilities and faculty on the University of Chicago campus, at the Argonne National Laboratory, the Illinois Institute of Technology campus

and corporate partners. Research interests of faculty in the Committee on Computational Neuroscience can be accessed through the Neuroscience web page at <http://neuroscience.uchicago.edu/faculty/>. Ongoing research topics range from work at the molecular level to studies in cognitive neuroscience. These projects involve modern methods of recording and imaging the activities of individual neurons, populations of neurons and human brain regions. Quantitative approaches currently utilized by faculty and students include those derived from non-linear dynamics, large scale simulations of neural activity, time series analysis, and pattern recognition. Research projects address basic problems in neuroscience using approaches that range from molecular neurobiology to cognitive neuroscience, biomedical applications such as the construction of neural prostheses and the control of epilepsy, and technological applications to computational vision and language.

COMPUTATIONAL NEUROSCIENCE COURSES

CPNS 30000. Cellular Neurobiology. 100 Units.

This course is concerned with the structure and function of the nervous system at the cellular level. The cellular and subcellular components of neurons and their basic membrane and electrophysiological properties will be described. Cellular and molecular aspects of interactions between neurons will be studied. This will lead to functional analyses of the mechanisms involved in the generation and modulation of behavior in selected model systems.

Instructor(s): C. Hansel, X. Zhuang, and R. A. Eatock Terms Offered: Autumn

Equivalent Course(s): NURB 31800

CPNS 30107. Behavioral Neuroscience. 100 Units.

This course provides an introduction to neuroethology, examining brain activity relative to behaviors and organisms evaluated from an adaptive and evolutionary perspective. It starts with a brief introduction to classical ethology, and then develops a series of example animal model systems. Both invertebrate and vertebrate models are considered although there is a bias towards the latter. Many of these are "champion" species. There is a heavier demand for reading original data papers than typical in introductory graduate level courses. An integral part of the course is a series of assignments where you develop grant proposals describing novel science experiments in the animal models, thereby challenging your knowledge of the material and teaching aspects of scientific writing. In recent years there has been more computational material presented. The course is not available to undergraduates without prior approval of the instructor.

Instructor(s): D. Margoliash Terms Offered: Spring

Note(s): The course is not available to undergraduates without prior approval of the instructor.

Equivalent Course(s): NURB 30107, PSYC 40107

CPNS 30116. Survey of Systems Neuroscience. 100 Units.

This lab-centered course teaches students the fundamental principles of vertebrate nervous system organization. Students learn the major structures and the basic circuitry of the brain, spinal cord and peripheral nervous system. Somatic, visual, auditory, vestibular and olfactory sensory systems are presented in particular depth. A highlight of this course is that students become practiced at recognizing the nuclear organization and cellular architecture of many regions of brain in rodents, cats and primates.

Instructor(s): S. Bensmaia Terms Offered: Autumn

Prerequisite(s): NSCI 20130. For Biological Sciences majors: Three quarters of a Biological Sciences fundamentals sequence

Equivalent Course(s): BIOS 24208, ORGB 32500, NURB 31600, NSCI 23500

CPNS 31000. Mathematical Methods for Biological Sciences I. 100 Units.

This course builds on the introduction to modeling course biology students take in the first year (BIOS 20151 or 152). It begins with a review of one-variable ordinary differential equations as models for biological processes changing with time, and proceeds to develop basic dynamical systems theory. Analytic skills include stability analysis, phase portraits, limit cycles, and bifurcations. Linear algebra concepts are introduced and developed, and Fourier methods are applied to data analysis. The methods are applied to diverse areas of biology, such as ecology, neuroscience, regulatory networks, and molecular structure. The students learn computations methods to implement the models in MATLAB.

Instructor(s): D. Kondrashov Terms Offered: Autumn. L.

Prerequisite(s): BIOS 20151 or BIOS 20152 or equivalent quantitative experience by consent of instructor, and three quarters of a Biological Sciences Fundamentals sequence or consent of the instructor.

Equivalent Course(s): BIOS 26210, PSYC 36210

CPNS 31100. Mathematical Methods for Biological Sciences II. 100 Units.

This course is a continuation of BIOS 26210. The topics start with optimization problems, such as nonlinear least squares fitting, principal component analysis and sequence alignment. Stochastic models are introduced, such as Markov chains, birth-death processes, and diffusion processes, with applications including hidden Markov models, tumor population modeling, and networks of chemical reactions. In computer labs, students learn optimization methods and stochastic algorithms, e.g., Markov Chain, Monte Carlo, and Gillespie algorithm. Students complete an independent project on a topic of their interest.

Instructor(s): D. Kondrashov Terms Offered: Winter. L.

Prerequisite(s): BIOS 26210 or equivalent.

Equivalent Course(s): BIOS 26211, PSYC 36211

CPNS 31358. Simulation, Modeling, and Computation in Biophysics. 100 Units.

This course develops skills for modeling biomolecular systems. Fundamental knowledge covers basic statistical mechanics, free energy, and kinetic concepts. Tools include molecular dynamics and Monte Carlo simulations, random walk and diffusion equations, and methods to generate random Gaussian and Poisson distributors. A term project involves writing a small program that simulates a process. Familiarity with a programming language or Matlab would be valuable.

Instructor(s): B. Roux Terms Offered: Winter

Prerequisite(s): BIOS 20200 and BIOS 26210-26211, or consent from instructor

Equivalent Course(s): BIOS 21358, BCMB 31358

CPNS 31900. Intro To Faculty Research. 100 Units.

First-year students in Neurobiology and Computational Neuroscience are required to attend this chalk talk series where faculty members looking for rotating students present the research conducted in their labs.

Equivalent Course(s): NURB 32000

CPNS 32111. Modeling and Signal Analysis for Neuroscientists. 100 Units.

The course provides an introduction into signal analysis and modeling for neuroscientists. We cover linear and nonlinear techniques and model both single neurons and neuronal networks. The goal is to provide students with the mathematical background to understand the literature in this field, the principles of analysis and simulation software, and allow them to construct their own tools. Several of the 90-minute lectures include demonstrations and/or exercises in Matlab.

Instructor(s): W. van Drongelen Terms Offered: Spring, L.

Prerequisite(s): Undergraduates: Biology Major - BIOS 26210 and 26211, or consent of instructor. Neuroscience Major - NSCI 20130, BIOS 26210 and 26211, or consent of instructor.

Equivalent Course(s): BIOS 24408, NSCI 24000

CPNS 32300. Molecular Principles of Nervous System Development. 100 Units.

This elective course provides an overview of the fundamental questions in developmental neurobiology. It is based on primary research papers and highlights key discoveries in vertebrate and invertebrate animals that advanced our understanding of nervous system development. Topics covered, among others, will include neural stem cells, neuronal specification and terminal differentiation, and circuit assembly. Dogmas and current debates in developmental neurobiology will be discussed, aiming to promote critical thinking about the field. This advanced-level course is open to upper level undergraduate and graduate students and combines lectures, student presentations, and discussion sections. Neuroscience major undergrads need to have completed the Fundamentals of Neuroscience sequence.

Instructor(s): E. Grove, P. Kratsios Terms Offered: Winter

Prerequisite(s): For undergrads: NSCI 20110, 20120, 20130 and a basic understanding of Genetics, or "BIOS 20187" (Fundamentals of Genetics) is recommended, but not required.

Equivalent Course(s): NSCI 22300, DVBI 32300, NURB 32300

CPNS 33200. Computational Approaches to Cognitive Neuroscience. 100 Units.

This course is concerned with the relationship of the nervous system to higher order behaviors (e.g., perception, object recognition, action, attention, learning, memory, and decision making). Psychophysical, functional imaging, and electrophysiological methods are introduced. Mathematical and statistical methods (e.g. neural networks) and algorithms for studying neural encoding in individual neurons and decoding in populations of neurons) are discussed. Weekly lab sections allow students to program cognitive neuroscientific experiments and simulations.

Instructor(s): N. Hatsopoulos Terms Offered: Winter

Prerequisite(s): For Neuroscience Majors: NSCI 20110, NSCI 20130, BIOS 26210, and knowledge using Matlab, or consent of instructor.

Equivalent Course(s): BIOS 24232, NSCI 23600, PSYC 34410, ORGB 34650

CPNS 34133. Neuroscience of Seeing. 100 Units.

This course focuses on the neural basis of vision, in the context of the following two questions: 1. How does the brain transform visual stimuli into neuronal responses? 2. How does the brain use visual information to guide behavior? The course covers signal transformation throughout the visual pathway, from retina to thalamus to cortex, and includes biophysical, anatomical, and computational studies of the visual system, psychophysics, and quantitative models of visual processing. This course is designed as an advanced neuroscience course for undergraduate and graduate students. The students are expected to have a general background in neurophysiology and neuroanatomy.

Instructor(s): W. Wei, J. Maunsell, M. Sherman, S. Shevell Terms Offered: Autumn

Prerequisite(s): NSCI 20111 or BIOS 24110 or consent of instructor

Equivalent Course(s): PSYC 24133, PSYC 34133, NSCI 22400, BIOS 24133, NURB 34133

CPNS 34200. Gazing into the Black Box: Neocortex. 100 Units.

The neocortex is the multilayered outermost structure of the mammalian brain. It is the site of higher brain functions including reasoning and creativity. However, the complexity of the neocortex-it is comprised of ~20 billion neurons which have 0.15 quadrillion connections between them-seems to preclude any hope of achieving a fundamental understanding of the system. Recent technological innovations have opened novel avenues of investigation making realization of the neocortex an increasingly tractable problem. This course will place particular emphasis on how to critically read scientific papers as we evaluate and discuss current experimental approaches to the neocortex. Integral to this evaluation will be the detailed discussion of the latest technological approaches.

Instructor(s): J. MacLean Terms Offered: Autumn. This course will not be taught in Autumn 2019. Course will resume in Autumn 2020.

Prerequisite(s): NSCI 20111, 20121, 20130 or consent of instructor. For Biology majors: Three quarters of a Biological Sciences Fundamentals sequence.

Equivalent Course(s): NSCI 22000, BIOS 24226

CPNS 34231. Methods in Computational Neuroscience. 100 Units.

Topics include (but are not limited to): Hodgkin-Huxley equations, Cable theory, Single neuron models, Information theory, Signal Detection theory, Reverse correlation, Relating neural responses to behavior, and Rate vs. temporal codes.

Instructor(s): S. Bensmaia Terms Offered: Winter. L.

Prerequisite(s): For Neuroscience Majors: NSCI 20130, BIOS 26210 and BIOS 26211 which must be taken concurrently, or consent of instructor.

Equivalent Course(s): NSCI 23700, PSYC 24231, BIOS 24231

CPNS 34600. Neurobiology of Disease I. 100 Units.

This graduate-level, 100-unit course has an unusual format aimed at fostering lively discussion and interaction. There will be 10 meetings spread at 1-month intervals over the winter, spring and fall quarters. Each meeting will focus on a topic such as Epilepsy, Alzheimer's, or Autism, and feature a brief introduction (by a student) and chalk talks by two faculty, one on clinical aspects of the disease and one on basic research approaches. The student's grade is based on the presentation at one meeting and participation across all meetings.

Instructor(s): C. Gomez, X. Zhuang Terms Offered: Autumn Spring Winter

Note(s): Class meets on the 3rd Wednesday of the month; 100 credits given after 3 quarters attendance.

Equivalent Course(s): NURB 34600

CPNS 35510. Theoretical Neuroscience: Single Neuron Dynamics and Computation. 100 Units.

This course is the first part of a three-quarter sequence in theoretical/computational neuroscience. It will focus on mathematical models of single neurons. Topics will include: basic biophysical properties of neurons; Hodgkin-Huxley model for action potential generation; 2D models, phase-plane analysis, and bifurcations leading to action potential generation; integrate-and-fire-type models; noise; characterization of neuronal activity with stochastic inputs; spatially extended models; models of synaptic currents and synaptic plasticity; unsupervised learning; supervised learning; reinforcement learning.

Terms Offered: Not offered in 2018-2019.

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory

Equivalent Course(s): STAT 42510

CPNS 35520. Theoretical Neuroscience: Network Dynamics and Computation. 100 Units.

This course is the second part of a three-quarter sequence in theoretical/computational neuroscience. It will focus on mathematical models of networks of neurons. Topics will include: firing rate models for populations of neurons; spatially extended firing rate models; models of visual cortex; models of brain networks at different levels; characterization of properties of specific brain networks; models of networks of binary neurons; mean rates, correlations, reductions to rate models; learning in networks of binary neurons, associative memory models; models of networks of spiking neurons: asynchronous vs synchronous states; oscillations in networks of spiking neurons; learning in networks of spiking neurons; models of working memory; models of decision-making.

Terms Offered: Not offered in 2019-2020

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory, STAT 42510 or instructor consent.

Equivalent Course(s): STAT 42520

CPNS 35600. Theoretical Neuroscience: Statistics and Information Theory. 100 Units.

This course begins with an introduction to inference and statistical methods in data analysis. We then cover the two main sections of the course: I) Encoding and II) Decoding in single neurons and neural populations. The encoding section will cover receptive field analysis (STA, STC and non-linear methods such as maximally informative dimensions) and will explore linear-nonlinear-Poisson models of neural encoding as well as generalized linear models alongside newer population coding models. The decoding section will cover basic methods for inferring stimuli or behaviors from spike train data, including both linear and correlational approaches to population decoding. The course will use examples from real data (where appropriate) in the problem sets which students will solve using MATLAB.

Prerequisite(s): Prior exposure to basic calculus and probability theory, CPNS 35500 or instructor consent.

Equivalent Course(s): ORGB 42600, STAT 42600

CPNS 38800. Neuroscience Ethics. 100 Units.

Neuroscience Senior Ethics class: compulsory for Neurobiology and Computational Neuroscience PhD students in their 4th year (to fulfill BSD ethics requirement). The course, directed by the graduate programs chairs, will consist of 4 sessions with invited speakers to be held in May and June.

Instructor(s): D. McGehee Terms Offered: Winter

Equivalent Course(s): NURB 38800

CPNS 39900. Readings: Computational Neuroscience. 300.00 Units.

Subject matter for individual tutorial-based study is selected through prior consultation and is given under the guidance of a faculty member. The student and faculty member must indicate at time of registration whether the course will be taken on a letter grade or pass/fail basis.

CPNS 40100. Research: Computational Neuroscience. 300.00 Units.

The student conducts original investigation under the direction of a faculty member. The research is presented and defended as a dissertation in candidacy for the degree of Doctor of Philosophy.

CPNS 42900. Mathematical Modeling of Large-Scale Brain Activity I. 100 Units.

An independent study in mathematical modeling.

Equivalent Course(s): MATH 42900

CPNS 42901. Mathematical Modeling of Large-Scale Brain Activity II. 100 Units.

Independent study in Mathematical Modeling of Large-Scale Brain Activity 2.

Equivalent Course(s): MATH 42901

CPNS 70000. Advanced Study: Computational Neuroscience. 300.00 Units.

Advanced Study: Computational Neuroscience



COMMITTEE ON DEVELOPMENT, REGENERATION, AND STEM CELL BIOLOGY

Chair

- Ilaria Rebay

Professors

- John Cunningham, Pediatrics
- Glyn Dawson, Pediatrics
- Wei Du, Ben May Department for Cancer Research
- Richard Fehon, Molecular Genetics & Cell Biology
- Edwin Ferguson, Molecular Genetics & Cell Biology
- Yoav Gilad, Human Genetics
- Michael Glotzer, Molecular Genetics & Cell Biology
- William Green, Neurobiology
- Elizabeth Grove, Neurobiology
- Robert Ho, Organismal Biology & Anatomy
- David Kovar, Molecular Genetics & Cell Biology
- Bruce Lahn, Human Genetics
- Victoria Prince, Organismal Biology & Anatomy
- Clifton Ragsdale, Neurobiology
- Ilaria Rebay, Ben May Department for Cancer Research
- Marsha Rosner, Ben May Department for Cancer Research
- Nancy Schwartz, Pediatrics
- Neil Shubin, Organismal Biology & Anatomy
- Kevin White, Human Genetics

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- Akira Imamoto, Ben May Department for Cancer Research
- Barbara Kee, Pathology
- Kay Macleod, Ben May Department for Cancer Research
- Jocelyn Malamy, Molecular Genetics & Cell Biology
- Ivan Moskowitz, Pediatrics
- Ed Munro, Molecular Genetics & Cell Biology
- Urs Schmidt-Ott, Organismal Biology & Anatomy

Assistant Professors

- Jill de Jong, Pediatrics
- Ellie Heckscher, Molecular Genetics & Cell Biology
- Paschalis Kratsios, Neurobiology
- Xiaoyang Wu, Ben May Department for Cancer Research

Emeritus Faculty

- Martin Gross, Pathology
- Robert Haselkorn, Molecular Genetics & Cell Biology
- Anthony Mahowald, Molecular Genetics & Cell Biology
- Manfred Ruddat, Ecology & Evolution

PROGRAM OF STUDY

FIRST YEAR

The first year of graduate study is spent in coursework, independent reading, and exploratory research. Three courses constitute a full schedule for each quarter of the first year; the schedule typically includes three lecture courses or two lecture courses and a research rotation. Students are required to undertake laboratory rotations in at least three different laboratories before beginning their dissertation research. These rotations are

performed during the first academic year, one each quarter. Rotations can also be performed during Summer Quarter.

Seminars given by invited speakers are regularly offered and students are strongly urged to attend. A separate series of meetings is presented in the Autumn and Winter quarters by faculty to introduce students to their research.

At the end of June, students take the Preliminary Examination as a first step towards candidacy for the Ph.D. The exam consists of the preparation of a written research proposal in the field of developmental biology and an oral defense of that proposal.

SECOND YEAR

Coursework will continue during the second year as needed to fulfill the requirements. Students choose research advisors by July 1 of the Summer Quarter after the first year, and begin developing a research project. By early Autumn Quarter, each student assembles a thesis committee. The student then prepares a written proposal for dissertation research and defends this proposal before the doctoral committee. This defense constitutes Part II of the candidacy examination. This examination must be completed by the end of Autumn Quarter of the second academic year.

ADVANCED YEARS

After the qualifying exam, the student works full time on thesis research, although the faculty urges students to continue to take advantage of the advanced courses and seminars that are offered. Finally, each graduating student writes a dissertation describing his or her research, presents the work in a public seminar, and defends it before their doctoral committee.

EVALUATION

Throughout their term as graduate students, students are expected to have frequent informal conversations with professors in their courses, their research advisor, and members of their doctoral committees. In this way, students can obtain frequent appraisals of their progress and constructive advice.

Formal evaluation of each student's progress continues every academic year. In the first year and a half, the evaluation is based on the student's performance in courses, laboratory rotations, the preliminary examination, and the qualifying examination. In later years, the research advisor and doctoral committee oversee the student's dissertation research progress; a report is submitted after the yearly meeting that becomes part of the student's permanent file. If there are any deficiencies in performance, the student will receive a letter describing those deficiencies and making suggestions about how to remedy them.

ADMISSIONS

For information about applying to our graduate program, please visit our website at <http://molbio.bsd.uchicago.edu>.

REQUIREMENTS FOR THE PH.D. DEGREE

A Ph.D. candidate must fulfill certain formal course work requirements, pass the preliminary and qualifying examinations, and present a satisfactory dissertation describing the results of original research.

The committee expects a knowledge of and proficiency in contemporary developmental biology as well as auxiliary fields of molecular biology, cell biology, and genetics. This requirement will normally be met by fulfilling the formal course work listed below. However, courses taken at other institutions, in other departments, or as part of the medical school curriculum may substitute for required committee courses with the approval of the curriculum committee.

FORMAL COURSE WORK

The Biological Sciences Division requirement of nine graded course units may be met by registering for a combination of formal courses and up to two graded laboratory rotations. During the first year of graduate work students ordinarily complete one course in molecular biology, one in cell biology, one in genetics, and three courses in developmental biology.

DEVELOPMENTAL BIOLOGY COURSES

DVBI 33850. Evolution and Development. 100 Units.

The course will provide a developmental perspective on animal body plans in phylogenetic context. The course will start with a few lectures, accompanied by reading assignments. Students will be required to present a selected research topic that fits the broader goal of the course and will be asked to submit a referenced written version of it after their oral presentation. Grading will be based on their presentation (oral and written) as well as their contributions to class discussions. Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Instructor(s): U. Schmidt-Ott Terms Offered: Autumn

Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Equivalent Course(s): BIOS 22306, EVOL 33850, ORGB 33850

DVBI 35600. Vertebrate Development. 100 Units.

This advanced-level course combines lectures, student presentations, and discussion sessions. It covers major topics on the developmental biology of embryos (e.g. formation of the germ line, gastrulation, segmentation, nervous system development, limb patterning, organogenesis). We make extensive use of the primary literature and emphasize experimental approaches including embryology, genetics, and molecular genetics.

Instructor(s): V. Prince, P. Kratsios. Terms Offered: Spring

Prerequisite(s): For Biological Sciences majors: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20189 or BIOS 20190

Equivalent Course(s): ORGB 33600, BIOS 21356, MGCB 35600

DVBI 36100. Plant Development and Molecular Genetics. 100 Units.

Genetic approaches to central problems in plant development will be discussed. Emphasis will be placed on embryonic pattern formation, meristem structure and function, reproduction, and the role of hormones and environmental signals in development. Lectures will be drawn from the current literature; experimental approaches (genetic, cell biological, biochemical) used to discern developmental mechanisms will be emphasized. Graduate students will present a research proposal in oral and written form; undergraduate students will present and analyze data from the primary literature, and will be responsible for a final paper.

Instructor(s): J. Greenberg Terms Offered: Spring

Prerequisite(s): For undergraduates only: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235.

Equivalent Course(s): ECEV 32900, MGCB 36100, BIOS 23299

DVBI 36200. Stem Cells and Regeneration. 100 Units.

The course will focus on the basic biology of stem cells and regeneration, highlighting biomedically relevant findings that have the potential to translate to the clinic. We will cover embryonic and induced pluripotent stem cells, as well as adult stem cells from a variety of systems, both invertebrate and vertebrates.

Instructor(s): E. Ferguson, V. Prince, J. Cunningham, J. De Jong, X. Wu Terms Offered: Autumn

Prerequisite(s): For undergraduates only: completion of a Biological Sciences fundamentals sequence

Equivalent Course(s): BIOS 21416

DVBI 36400. Developmental Mechanisms. 100 Units.

This course provides an overview of the fundamental questions of developmental biology, with particular emphasis on the genetic, molecular and cell biological experiments that have been employed to reach mechanistic answers to these questions. Topics covered will include formation of the primary body axes, the role of local signaling interactions in regulating cell fate and proliferation, the cellular basis of morphogenesis, and stem cells.

Instructor(s): E. Ferguson, R. Fehon Terms Offered: Winter

Prerequisite(s): For undergraduates only: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20189, BIOS 20190, or BIOS 20235.

Equivalent Course(s): BIOS 21237, MGCB 36400

DVBI 32000. Quantitative Analysis of Biological Dynamics. 100 Units.

The basic focus of the course will be quantitative approaches to understanding organization and dynamics at the molecular, subcellular and cellular levels, and will rest on three pillars - modern imaging and image analysis, quantitative analysis and presentation of data, mathematical modeling and computer simulations.

Instructor(s): Edwin Munro; Michael Rust Terms Offered: Spring

Equivalent Course(s): MGCB 32000

DVBI 32550. Quantitative Analysis of Biological Dynamics II. 100 Units.

This is a workshop style course in which students will work closely with instructors and TAs to implement mathematical/computational approaches to address specific research problems of interest to individual students.

The course is open to all students who have taken MGCB/DRSB 32000 or its equivalent, or who have otherwise acquired a basic working knowledge of one or more programming languages (e.g. R, Matlab, Python). The course will function as follows: prior to enrollment, each interested student will meet with the course instructors to discuss an open scientific question they wish to address using mathematical/computational approaches. The course will begin with a short presentation from each student describing the problem they propose to study, followed by a discussion with the rest of the students and the course instructors about possible approaches.

The course instructors and TAs will then meet one-on-one with students over the course of the quarter to help students implement the proposed strategies and adapt to challenges that emerge through this process. Students will reconvene weekly as a group to report on their progress and discuss alternative approaches.

Instructor(s): E. Munro, M. Rust Terms Offered: Spring. Offered in alternating years beginning Spring 2020.

Prerequisite(s): MGCB 32000, DVBI 32000

Equivalent Course(s): MGCB 32550

DISTRIBUTION COURSES

DVBI 31200. Molecular Biology I. 100 Units.

Nucleic acid structure and DNA topology; methodology; nucleic-acid protein interactions; mechanisms and regulation of transcription in eubacteria, and of replication in eubacteria and eukaryotes; mechanisms of genome and plasmid segregation in eubacteria.

Instructor(s): L. Rothman-Denes Terms Offered: Winter

Equivalent Course(s): BCMB 31200, MGCB 31200

DVBI 31300. Molecular Biology-II. 100 Units.

The content of this course covers the mechanisms and regulation of eukaryotic gene expression at the transcriptional and post-transcriptional levels. Our goal is to explore research frontiers and evolving methodologies. Rather than focusing on the elemental aspects of a topic, the lectures and discussions highlight the most significant recent developments, their implications and future directions.

Instructor(s): J. Staley, A. Ruthenburg Terms Offered: Spring

Prerequisite(s): Molecular Biology I (MGCB 31200) or by special permission of an instructor

Equivalent Course(s): MGCB 31300, BCMB 31300

DVBI 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Equivalent Course(s): BCMB 31400, MGCB 31400, HGEN 31400

DVBI 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion.

Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn

Equivalent Course(s): BCMB 31600, HGEN 31600, MGCB 31600

DVBI 31700. Cell Biology II. 100 Units.

This course covers the mechanisms with which cells execute fundamental behaviors. Topics include signal transduction, cell cycle progression, cell growth, cell death, cancer biology, cytoskeletal polymers and motors, cell motility, cytoskeletal diseases, and cell polarity. Each lecture will conclude with a dissection of primary literature with input from the students. Students will write and present a short research proposal, providing excellent preparation for preliminary exams.

Instructor(s): M. Glotzer, D. Kovar Terms Offered: Winter

Prerequisite(s): For undergraduates: Three quarters of a Biological Sciences Fundamentals sequence.

Equivalent Course(s): BCMB 31700, BIOS 21238, MGCB 31700



DEPARTMENT OF ECOLOGY AND EVOLUTION

Chair: Joy Bergelson

Director of Graduate Studies: Stefano Allesina

Professors

- Stefano Allesina
- Joy Bergelson
- Luis Bettencourt
- Gregory Dwyer
- Martin Kreitman
- Manyuan Long
- Mercedes Pascual
- Catherine Pfister
- Trevor D. Price
- John Reinitz, Statistics
- Joseph Thornton
- J. Timothy Wootton
- Chung-I Wu

Associate Professors

- Sarah Cobey
- Marcus Kronforst
- Stephen Prueett-Jones

Assistant Professors

- Matthias Steinruecken

Emeritus Faculty

- Jerry Coyne
- Richard R. Hudson
- Wen-Hsiung Li
- Manfred D.E. Ruddat

Research Associate (Associate Professor)

- Michael Z. Ludwig

The Department of Ecology and Evolution provides training for research and teaching in the ecology, evolution and behavior of whole organisms, at the levels of the organism, the population, and the ecosystem. The research interests of our faculty include molecular evolution, population genetics, quantitative genetics, animal behavior, plant and animal ecology, evolutionary theory, systematics, paleontology, and related subjects. Individual levels of study range from molecules to communities. A common theme is the conduct of studies in a rigorous ecological and conceptual context, and the faculty share an interest in the architecture of populations, species and communities.

The department stresses scientific breadth and the interrelations between various specialized fields. Students are encouraged to approach basic biological problems with the most appropriate techniques: biophysical, biochemical, mathematical, physiological, or organismal. Departmental laboratories are equipped for a wide variety of contemporary research methods. Courses in other programs may be taken for credit in ecology and evolution for example, in the Departments of Organismal Biology and Anatomy, Biochemistry and Molecular Biology, Molecular Genetics and Cell Biology, Statistics, Geophysical Sciences, Anthropology, and Chemistry. Many students in the Department of Ecology and Evolution participate in interdepartmental programs in genetics, cell biology, developmental biology, population biology, theoretical biology, and evolutionary biology, and in these programs dissertation research may be co-sponsored by faculty from different departments. Collaboration is also maintained with the Field Museum and the Shedd Aquarium for students interested in research in systematics, taxonomy, and evolutionary biology, and with the Brookfield Zoo for basic research in conservation and behavior involving zoo animals. New opportunities are available for research and education at the Woods Hole Marine Biological Laboratory as well as the Warren Woods Ecological Field Station (<http://pondside.uchicago.edu/ee/facilities/WW.shtml>). Recent students in the department have performed field research in Central and South America, Asia, Australasia, Northern Europe, and other regions of the earth.

PROGRAM OF STUDY

Most students in the Department of Ecology and Evolution complete their Ph.D. program in 5-6 years, though students entering with a master's degree may finish in slightly less time. A student advisory committee advises all incoming and second year students on academic and research concerns. The first and second years consist largely of course work and individual reading courses, aiming toward successful completion of an oral general knowledge examination by the spring quarter of the first year, supervised by the student advisory committee. The student and faculty advisor, in consultation with the director of graduate studies, then choose a five member faculty doctoral committee, scheduling a defense of the dissertation research proposal by the end of the second year of study. Work in subsequent years shifts to dissertation-centered research and, finally, preparation and defense of the Ph.D. dissertation. All students are required to register to be a supervised teaching assistant in two approved courses during their tenure in the doctoral program. While there is no terminal master's degree program in the department, students may elect to receive the S.M. degree upon successful completion of their dissertation proposal defense.

ENTRANCE REQUIREMENTS

Entering students are expected to have received a broad undergraduate training in biology, and a good background in related quantitative subjects, such as chemistry, statistics and calculus. Students who are admitted without having fully satisfied these requirements will be required to remedy their deficiencies by taking appropriate courses during their first two years in the graduate program.

GENERAL KNOWLEDGE EXAMINATION

Each first year student will be expected to pass an oral general knowledge examination during the first year of study, generally no later than the 10th week of the spring quarter. This examination session shall be attended by all three members of an examination committee appointed by the student advisory committee. The goal of the examination will be to assess each student's general knowledge of key concepts, processes and issues in ecology and evolutionary biology, as covered in the courses recommended to the student by the student advisory committee during the student's first year in the program.

DISSERTATION PROPOSAL DEFENSE

This examination consists of the submission of a written Ph.D. research proposal and an oral presentation of the proposal in a public or closed/private seminar format, followed by a closed discussion and examination on the proposal presentation with the faculty committee chosen by the student and the chair of the department. Students are expected to schedule the dissertation proposal defense before the end of their second year.

DOCTOR OF PHILOSOPHY

Upon successful completion of the dissertation proposal defense and admission into candidacy for the Ph.D., students work closely with the faculty advisor and dissertation committee on the dissertation project. During the period of two to three years in which students do primary original research, they also participate in seminars, discussion groups, and professional meetings and conferences, leading to the completion of the written Ph.D. dissertation. The Ph.D. in ecology and evolution is awarded based upon:

- Submission of a written dissertation based on original research, which must be approved by the faculty adviser and dissertation committee.
- Presentation of a public seminar based on the dissertation research.
- Following the public seminar, successful performance during an oral examination by the dissertation committee and other relevant faculty.
- Acceptance of the approved written dissertation by the university Dissertation Office in compliance with that office's regulations.

APPLICATION

We strongly advise students considering application to the department to begin preparation of their application early in the autumn quarter, so that all materials will arrive by the December 1 deadline. The department requires GRE General Test scores from all applicants, and recommends submission of GRE subject test scores in biology. Foreign applicants whose first language is not English also must submit TOEFL test scores with their application materials.

Further information also may be obtained from the department's home page at <http://poundside.uchicago.edu/ee/>

ECOLOGY AND EVOLUTION COURSES

ECEV 30415. Evolution Before Darwin. 100 Units.

This course will explore the emergence and development of evolutionary thought prior to Charles Darwin's *On the Origin of Species* (1859). We will pay particular attention to the way in which transformism was a feature of nineteenth-century thought more generally, connecting natural history to astronomy, theology, and the study of humanity. Natural philosophers and later scientists who wished to make arguments concerning nature's deep past and hidden or obscured processes (such as the long-term transformations of stars, strata, and organic species) faced an essential problem: the power of observation and experiment was limited. Our class will interrogate this problem, and examine the way in which the development of evolutionary thought prior to Darwin was intimately connected to contentious debates regarding speculation and scientific method. We will conclude by contemplating the ways in which the ideas and challenges raised by transformism and evolution influenced the reception of Darwin's work, and the way in which these ideas and challenges remain embedded within seemingly disparate fields of study today.

Instructor(s): J. Daly Terms Offered: Winter

Equivalent Course(s): HIPS 21415, ORGB 30415, HIST 25316, KNOW 21415

ECEV 31100. Evolution of Biological Molecules. 100 Units.

The course connects evolutionary changes imprinted in genes and genomes with the structure, function and behavior of the encoded protein and RNA molecules. Central themes are the mechanisms and dynamics by which molecular structure and function evolve, how protein/ RNA architecture shapes evolutionary trajectories, and how patterns in present-day sequence can be interpreted to reveal the interplay data of evolutionary history and molecular properties. Core concepts in macromolecule biochemistry (folding and stability of proteins and RNA, structure-function relationships, kinetics, catalysis) and molecular evolution (selection, mutation, drift, epistasis, effective population size, phylogenetics) will be taught, and the interplay between them explored.

Instructor(s): A. Drummond, J. Thornton Terms Offered: Winter

Prerequisite(s): Comfort with basic computer programming (course will use Python and R); undergraduate biology, chemistry, calculus, and introductory statistics.

Equivalent Course(s): BCMB 31100, HGEN 31100

ECEV 31200. Data Analysis in Ecol/Evol. 100 Units.

The course provides a basic introduction to statistics for biologists. We cover experimental design and many of the potential pitfalls associated with data analysis, including pseudoreplication, multiple testing, regression effects, setting up appropriate null models, and graphical presentation. Assumptions underlying elementary tests, including non-parametric vs parametric and fixed vs random effects will be clarified. We will not cover advanced methods of analysis, beyond straightforward linear models. Students will be encouraged to analyse their own datasets using R.

Instructor(s): T. Price Terms Offered: Autumn. will be offered in Autumn 2018

Note(s): Required text: M. Whitlock & D. Schluter, *Analysis of Biological Data*, 2nd edition.

Equivalent Course(s): EVOL 31200

ECEV 31409. History of Extraterrestrial Life. 100 Units.

In 2014, the Vatican Radio made a splash when it reported that the pontiff, Pope Francis, condoned the baptism of extraterrestrials-if they so desired it. "Who are we to close doors?" he asked rhetorically. It was both a metaphor for spiritual inclusion and an accurate representation of the modern Vatican's position on the possibilities of modern astrobiology and the search for extrasolar planets, fields whose rapid growth over the past two decades make serious consideration of extraterrestrial life seem like a uniquely modern phenomena. Its history, however, is in fact many centuries old. In this course we will examine the development of beliefs concerning life in the universe from the sixteenth century to the present. How did historical actors understand the nature, abilities, and location of extraterrestrial life, and its relationship to man and god? We will analyze connections between these beliefs and contemporary political, social, scientific, and religious developments. These include the role of the plurality of worlds in the debates over heliocentrism, its impact and application in the context of deism and social and political freethought, its literary and artistic depictions and use as a tool of satire and social commentary, its influence on natural philosophy, its decline and the subsequent rise of alien conspiracists and their critics, and how and why conceptions of the extraplanetary other took a dark and sinister turn toward the early-to-mid twentieth century.

Equivalent Course(s): KNOW 21409, HIPS 21409, HIST 24917

ECEV 32000. Computing Skills for Biologists. 100 Units.

The course will cover basic concepts in computing for an audience of biology graduate students. The students will receive basic training in the use of version control systems, databases and regular expressions. They will learn how to program in python and R and how to use R to produce publication-grade figures for their manuscripts, and how to typeset scientific manuscripts and theses using LaTeX. All the examples and exercises will be biologically motivated and will make use of real data. The approach will be hands-on, with lecturing followed by exercises in class.

Instructor(s): S. Allesina Terms Offered: Winter

ECEV 32900. Plant Development and Molecular Genetics. 100 Units.

Genetic approaches to central problems in plant development will be discussed. Emphasis will be placed on embryonic pattern formation, meristem structure and function, reproduction, and the role of hormones and environmental signals in development. Lectures will be drawn from the current literature; experimental approaches (genetic, cell biological, biochemical) used to discern developmental mechanisms will be emphasized. Graduate students will present a research proposal in oral and written form; undergraduate students will present and analyze data from the primary literature, and will be responsible for a final paper.

Instructor(s): J. Greenberg Terms Offered: Spring

Prerequisite(s): For undergraduates only: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235.

Equivalent Course(s): MGCB 36100, DVBI 36100, BIOS 23299

ECEV 33365. Evolutionary and Genomic Medicine I. 100 Units.

Evolution is regularly investigated in free-living organisms, but some of its most fascinating and important examples occur in the interface between free-living and non-free-living states. In this course, we will use evolutionary and ecological principles to study the dynamics of viruses, unicellular organisms and cells in multicellular organisms relevant to human medicine. In EGM I, the emphasis will be on the evolution of pathogens, the evolution of cells of the immune system in response to pathogen invasion, the basis of autoimmune disorders, and the population genetics of cancerous cells in light of recent cancer genomic studies. EGM II will cover more general topics including Darwinian medicine, aging, and systems biology/medicine.

Instructor(s): S. Cobey, C-I. Wu Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235. Background in evolution and population genetics.

Equivalent Course(s): BIOS 23365

ECEV 33400. Stochastic Processes in Continuous Time: Ecology and Epidemiology. 100 Units.

This course will introduce students to stochastic processes in continuous time, and to their application in major areas of Ecology and Epidemiology. These areas include theories of biodiversity, models for metapopulation dynamics and species' extinction, and those for the population dynamics of infectious diseases. Examples and discussions will include applications to data from ecosystems and infectious diseases in Latin America. The course is organized into four modules. The first two modules develop the basic concepts and methods of Markov processes in continuous time, from the formulation of models to their analysis and numerical simulation. The two following modules will involve 'hands-on' work by the students with guidance of the instructor, through projects formulated on the basis of a list of potential questions and problems. Students will be evaluated based on the oral and written presentation of their projects. Expected background includes calculus, basic probability, and some familiarity with a programming language.

ECEV 35400. Gene Regulation. 100 Units.

This course covers the fundamental theory of gene expression in prokaryotes and eukaryotes through lectures and readings in the primary literature. Natural and synthetic genetic systems arising in the context of *E. coli* physiology and *Drosophila* development will be used to illustrate fundamental biological problems together with the computational and theoretical tools required for their solution. These tools include large-scale optimization, image processing, ordinary and partial differential equations, the chemical Langevin and Fokker-Planck equations, and the chemical master equation. A central theme of the class is the art of identifying biological problems which require theoretical analysis and choosing the correct mathematical framework with which to solve the problem.

Terms Offered: To be determined; may not offered in 2019-2020.

Prerequisite(s): Consent of instructor

Equivalent Course(s): MGCB 35401, CAAM 35400, STAT 35400

ECEV 35420. Stochastic Processes in Gene Regulation. 100 Units.

This didactic course covers the fundamentals of stochastic chemical processes as they arise in the study of gene regulation. The central object of study is the Chemical Master Equation and its coarse-grainings at the Langevin/Fokker-Planck, linear noise, and deterministic levels. We will consider both mathematical and computational approaches in contexts where there are both single and multiple deterministic limits.

Instructor(s): J. Reinitz Terms Offered: To be determined; may not be offered in 2019-2020.

Prerequisite(s): Consent of instructor.

Equivalent Course(s): MGCB 35420, CAAM 35420, STAT 35420

ECEV 35800. Classics in Evolutionary Genetics. 100 Units.

Major classic papers in evolutionary genetics that had great impact on the development of the field are reviewed.

Instructor(s): M. Long, C-I Wu Terms Offered: Autumn. will be offered in Autumn 2018

Equivalent Course(s): EVOL 35800

ECEV 35901. Genomic Evolution I. 100 Units.

Canalization, a unifying biological principle first enunciated by Conrad Waddington in 1942, is an idea that has had tremendous intellectual influence on developmental biology, evolutionary biology, and mathematics. In this course we will explore canalization in all three contexts through extensive reading and discussion of both the classic and modern primary literature. We intend this exploration to raise new research problems which can be evaluated for further understanding. We encourage participants to present new ideas in this area for comment and discussion.

Instructor(s): M. Long, J. Reinitz, and C-I. Wu Terms Offered: TBD. not offered in 2018-19

Equivalent Course(s): STAT 35410, EVOL 35901

ECEV 35902. Genomic Evolution II: New Gene Problems. 100 Units.

This course is a summary and analysis for a rapidly growing area of gene evolution in recent years: Origin and evolution of new genes. We will review major scientific problems related to origination and evolution of new genes, ranging from the mechanistic processes that create new genes, to the rates and patterns of new gene origination, to the evolutionary forces acting on the new genes and to the impacts of the new genes on phenotypic evolution and to recently found evolutionary dynamics of sexual conflicts. While hundreds of research articles are discussed and, more importantly, the potential new research problems will be raised and evaluated for the further understanding. Relevant criticisms and new ideas to the new gene evolution are encouraged to present and discussed, in particular, with interests in: (i) finding new problems; (ii) finding new concepts; (iii) developing new techniques for analysis of new genes.

Instructor(s): M. Long and C. Wu Terms Offered: Spring. first offered in Spring 2018

ECEV 36400. Molecular Phylogenetics. 100 Units.

While evolution by natural selection is an elegantly simple phenomenon, modern research in evolutionary biology contains a variety of controversial, and sometimes confusing, topics. In this course, we will explore, as a group, a select list of controversial or confusing topics in evolutionary biology through a mix of student-led presentations and discussion of the primary literature. Each student will also write a review paper about his or her selected topic.

Instructor(s): J. Thornton, A. Drummond Terms Offered: Spring. offered in alternate (even) years

Note(s): not offered in 2018-19

Equivalent Course(s): ORGB 36400, HGEN 36400

ECEV 36700. Advanced Topics in Behavioral Ecology. 100 Units.

This is a reading course covering advanced topics in behavioral ecology. The list of topics to be covered will be based in part on student interests, but may include: behavior and conservation, communication, mating systems, sexual conflict, and sperm competition. This course is designed as a graduate course, but advanced undergraduates may enroll with the permission of the instructor.

Instructor(s): S. Pruett-Jones, T. Price Terms Offered: Winter

Equivalent Course(s): EVOL 46700

ECEV 36900. Topics in Paleobiology. 100 Units.

In this seminar we investigate paleobiological or multidisciplinary topics of current interest to students and faculty. Previous subjects include the origin of phyla, historical and macro-ecology, the stratigraphic record and evolutionary patterns, and climate and evolution.

Instructor(s): D. Jablonski, S. Kidwell, T. Price Terms Offered: Autumn

Equivalent Course(s): EVOL 31900, GEOS 36900

ECEV 40100. Grants, Publications, and Professional Issues. 100 Units.

Covers professional topics in evolutionary biology, primarily strategies in grant writing and review. Each student will work towards the submission of an application of their choice. The course meets weekly and involves extensive writing and discussion.

Instructor(s): J. Bergelson, R. Ho, M. Coates Terms Offered: Autumn

Note(s): Open to first and second year graduate students in the Darwinian Sciences Cluster

Equivalent Course(s): EVOL 40100, ORGB 40101

ECEV 40200. Advanced Topics in Ethics for the Darwinian Sciences. 100 Units.

This course covers advanced topics in ethics relevant to senior Ph.D. students in the Darwinian Sciences. CEB students are required to successfully complete this course before being awarded the Ph.D

Instructor(s): M. Coates, P. Herendeen Terms Offered: Winter

Prerequisite(s): Open to Ph.D. students in the Darwinian Sciences

Equivalent Course(s): ORGB 40200, EVOL 40200

ECEV 42600. Community Ecology. 100 Units.

Lectures and readings cover advanced topics in multi-species systems, and include an introduction to basic theoretical approaches.

Instructor(s): J.T. Wootton Terms Offered: Autumn

Equivalent Course(s): EVOL 42600

ECEV 42800. Population Ecology. 100 Units.

A lecture course on the empirical and theoretical approaches to the study of natural populations, including field methodologies and quantitative approaches. Includes computer assignments.

Instructor(s): C. Pfister Terms Offered: Winter

Equivalent Course(s): EVOL 42800

ECEV 42900. Theoretical Ecology. 100 Units.

An introduction to mathematical modeling in ecology. The course will begin with linear growth and Lotka-Volterra models, and proceed to partial differential equations. The course's perspective will emphasize numerical computations and fitting models to data.

Instructor(s): G. Dwyer, S. Cobey Terms Offered: Winter

ECEV 44001. Molecular Evolution I: Fundamentals and Principles. 100 Units.

The comparative analysis of DNA sequence variation has become an important tool in molecular biology, genetics, and evolutionary biology. This course covers major theories that form the foundation for understanding evolutionary forces that govern molecular variation, divergence, and genome organization. Particular attention is given to selectively neutral models of variation and evolution, and to alternative models of natural selection. The course provides practical information on accessing genome databases, searching for homologous sequences, aligning DNA and protein sequences, calculating sequence divergence, producing sequence phylogenies, and estimating evolutionary parameters.

Instructor(s): M. Kreitman Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235 and two quarters of calculus, or consent of instructor.

Equivalent Course(s): EVOL 44001, BIOS 23258

ECEV 44002. Molecular Evolution II: Genes and Genomes. 100 Units.

This course covers the knowledge and well-established evolutionary analyses of genes and genomes, as well as related areas (e.g., origination and evolution of new genes, exon-intron structure, sex-related genes, sex-determination genetic systems, transposable elements, gene regulation systems, duplication of genes and genomes, evolution of genome sizes). These topics are discussed under the processes driven by various evolutionary forces and genetic mechanisms. The analysis of these problems is conducted with the genomic context. Lectures, discussions, and experiments are combined.

Instructor(s): M. Long Terms Offered: Spring. This course is offered in alternate (odd) years.

Prerequisite(s): BIOS 23258 or consent of instructor

Equivalent Course(s): BIOS 23259, EVOL 44002

ECEV 44500. Networks in Ecology and Evolution. 100 Units.

This course will introduce students to concepts and methods in Network Science, through their application to ecological systems, in particular communities of coexisting species and their interactions. The history of ideas on biodiversity from the perspective of food webs ("who eats whom" in an ecosystem) will be followed in the first part of the course by material on different types of networks, properties used to describe their topology/structure, and probabilistic models to generate such structure. In a 'hands-on' part of the course, students will become familiar with existing data sets and algorithms for network visualization, computation of network metrics, and model simulation and inference. The role of evolutionary constraints in network topology will be discussed. The second part of the course will consider the relationship between structure and dynamics, including notions of stability and robustness, and the interaction of ecology and evolution in the assembly of communities of interacting species. Networks in epidemiology will provide examples of other ecological and evolutionary applications.

ECEV 49401. Approaches to Teaching in The Darwinian Sciences. 100 Units.

This course will introduce different teaching philosophies and methods that address how to be an effective teacher in the Darwinian Sciences. Specifically, the course will address what skills and knowledge undergraduates need to acquire and which assignments best teach these skills. Students will prepare course syllabi, discuss different approaches to teaching, and draft a philosophy of teaching statement. The overall goal of the course is that the students think critically about the art of teaching and formulate their own thoughts on the matter to better prepare them for their own careers in teaching.

Equivalent Course(s): EVOL 49401, ORGB 49401

ECEV 49500. Teaching: Ecology/Evolution. 100 Units.

For graduate students to build their teaching skills by assisting with the instruction of a course in a core area of Ecology and Evolution. Students should register for the section under the faculty member who is their teaching mentor for the quarter.

ECEV 49600. READINGS: Ecology and Evolution. 300.00 Units.**ECEV 49700. Readings: Ecology/Evolution. 300.00 Units.****ECEV 49800. Off-Campus Grad Rsch: Ecology & Evolution. 300.00 Units.**

For graduate students conducting dissertation research at an off-campus lab or field location. Students should register for the section under their advisor only when using pro forma status for the quarter.

ECEV 49900. On-Campus Grad Rsch: Ecology & Evolution. 300.00 Units.

For graduate students conducting dissertation research wholly or partly on campus for the quarter. Students should register for the section under their advisor and time spent should directly advance their dissertation in Ecology and Evolution.

ECEV 70000. Advanced Study: Ecology & Evolution. 300.00 Units.

Advanced Study: Ecology & Evolution



COMMITTEE ON EVOLUTIONARY BIOLOGY

Department Website: <http://evbio.uchicago.edu>

Chair

- Michael Coates

Associate Chair

- Shannon Hackett

Faculty

- Kenneth Angielczyk, Field Museum
- John Bates, Field Museum
- Joy Bergelson, Ecology and Evolution
- Rüdiger Bieler, Field Museum
- Michael Coates, Organismal Biology and Anatomy
- Maureen Coleman, Geophysical Sciences
- Katherine Cronin, Lincoln Park Zoo
- Martin Feder, Organismal Biology and Anatomy
- Michael J. Foote, Geophysical Sciences
- Lance Grande, Field Museum
- Shannon Hackett, Field Museum
- Lawrence Heaney, Field Museum
- Patrick Herendeen, Chicago Botanic Garden
- Andrew Hipp, Morton Arboretum/Herbarium
- Robert Ho, Organismal Biology and Anatomy
- David Jablonski, Geophysical Sciences
- Susan M. Kidwell, Geophysical Sciences
- Marcus Kronforst, Ecology and Evolution
- Robert Lacy, Brookfield Zoo
- Scott Lidgard, Field Museum
- Sarah London, Psychology
- Manyuan Long, Ecology and Evolution
- Thorston Lumbsch, Field Museum
- Zhe-Xi Luo, Organismal Biology and Anatomy
- Peter Makovicky, Field Museum
- Robert D. Martin, Field Museum
- Jill Mateo, Comparative Human Development
- Lance Miller, Chicago Zoological Society (Brookfield Zoo)
- R. Michael Miller, Argonne National Laboratory
- Gregory M. Mueller, Chicago Botanic Garden
- Salikoko Mufwene, Linguistics
- John Novembre, Human Genetics
- Bruce Patterson, Field Museum
- Catherine Pfister, Ecology and Evolution
- Trevor Price, Ecology and Evolution
- Victoria Prince, Organismal Biology and Anatomy
- Stephen Pruet-Jones, Ecology and Evolution
- Clifton Ragsdale, Neurobiology
- Richard Ree, Field Museum
- Olivier Rieppel, Field Museum
- Callum Ross, Organismal Biology and Anatomy
- Rachel Santymire, Lincoln Park Zoo
- Urs Schmidt-Ott, Organismal Biology and Anatomy
- Paul Sereno, Organismal Biology and Anatomy

- Neil Shubin, Organismal Biology and Anatomy
- Petra Sierwald, Field Museum
- Graham Slater, Geophysical Sciences
- Douglas Stotz, Field Museum
- Russell Tuttle, Anthropology
- Janet Voight, Field Museum
- Mark Webster, Geophysical Sciences
- Mark Westneat, Organismal Biology and Anatomy
- John Timothy Wootton, Ecology and Evolution
- Chung I Wu, Ecology and Evolution

Emeritus

- John Bolt, Field Museum
- Jerry Coyne, Ecology and Evolution
- James Hopson, Organismal Biology and Anatomy
- Michael LaBarbera, Organismal Biology and Anatomy
- Wen-Hsiung Li, Ecology and Evolution
- R. Eric Lombard, Organismal Biology and Anatomy
- Thomas Nagylaki, Ecology and Evolution
- Janice B. Spofford, Ecology and Evolution
- Margaret Thayer, Field Museum
- Harold Voris, Field Museum
- William Wimsatt, Philosophy

The Committee on Evolutionary Biology (CEB) provides students with the opportunity for interdisciplinary study of all aspects of evolutionary biology. The committee consists of faculty members with primary appointments in departments in all four graduate divisions within the university and of associated faculty from institutions in the Chicago area, such as Argonne National Laboratory, Lincoln Park Zoo, Chicago Botanic Garden, the Marine Biological Laboratory, Morton Arboretum, and the Field Museum. The diversity of research interests represented by the collective expertise of the committee faculty contributes to its strong national and international reputation as a graduate training program.

Students in the committee have ready access to facilities at the associated institutions, including the more than 1,100 animals representing over 200 species at Lincoln Park Zoo, more than 17 million specimens in the Field Museum collections in botany, zoology, and paleontology, and libraries at the Field Museum. Various facilities for the study of molecular evolution and phylogenetic analysis are available to committee students, as are several student computer centers, an on-campus greenhouse, and digital equipment for off-site research.

In the Chicago area, committee students have access to the rich and diverse resources available at the Chicago Botanic Garden, Argonne National Laboratory, the Shedd Aquarium, the Morton Arboretum, and the many parks and lands managed by the local forest preserve and park districts.

The University of Chicago is a member of the Organization for Tropical Studies. Doctoral students in the committee have taken courses in tropical ecology and conducted research in Costa Rica through this affiliation. Recent evolutionary biology students have also conducted domestic research at a variety of field sites, including the Southwest Research Station of the American Museum of Natural History, Sierra Nevada Aquatic Research Laboratory, Kellogg Biological Station, the Marine Biological Laboratory at Woods Hole, and Friday Harbor Marine Laboratory. International research is conducted on every continent.

PROGRAM OF STUDY

Most students in the Committee on Evolutionary Biology complete their Ph.D. program in about five and a half years.

The first and second years consist largely of course work and individual reading and research courses, aiming toward successful defense of a dissertation research proposal by the end of the Spring Quarter in the second year of study.

FIRST YEAR

Entering students are expected to have received a broad undergraduate training in biology and a good background in related quantitative subjects, such as chemistry, statistics and calculus. Students who are admitted with gaps in these areas may be required to remedy their deficiencies by taking appropriate courses during their first two years in the graduate program. The committee maintains a student advisory committee, which meets three times a year with each of the first and second year students to advise them on courses available, arbitrate on

which courses meet the committee's course distribution requirements, and otherwise help students keep on track towards Ph.D. candidacy.

SECOND YEAR

Second year students continue to meet with the student advisory committee until they pass their preliminary examination/dissertation proposal hearing. The first part of the second year may be taken up mostly with course work, supplemented more heavily by reading and research courses.

READING AND RESEARCH REQUIREMENTS

CEB courses have been divided into six broad areas. Students must successfully complete a course in five of the six areas to be recommended for Ph.D. candidacy. The primary aim is that the student acquires considerable breadth in evolutionary biology; this breadth and the interdisciplinary research it permits should be the distinguishing feature of students working in the committee. In the first two years of study students generally enroll in three courses per quarter. This can be a combination of lecture, seminar, research, and reading formats.

DIVISION OF THE BIOLOGICAL SCIENCES TEACHING ASSISTANT REQUIREMENT PROGRAM

During their tenure in the doctoral program, students are required to register for two evaluated teaching assistantships in two approved courses.

DISSERTATION PROPOSAL HEARING AND ADMISSION TO PH.D. CANDIDACY

Students should select an advisor no later than Autumn Quarter of their second year. This advisor normally will become the chair of the student's dissertation proposal committee. The committee for the dissertation proposal hearing will be formed by the student and her/his advisor, subject to approval by the CEB Chair, when the student asks the CEB Chair in writing to approve her/his request to appoint the exam committee and hold the proposal hearing.

CEB students must present and defend their dissertation proposal, followed by an oral examination by a faculty committee on general issues in evolutionary biology. Students are expected to successfully defend their dissertation proposal by the end of the Spring Quarter of their second year in the Ph.D. program. After successfully defending their dissertation proposal, students may be recommended for candidacy for the Ph.D. by the CEB Chair.

PH.D. DISSERTATION

Upon successful completion of the dissertation proposal hearing and admission into candidacy for the Ph.D., students work on their dissertation projects in close consultation with their faculty advisor and dissertation committee. During a period of two to three years the student does primary original research, participates in seminars, discussion groups, and professional meetings and conferences, and completes the written Ph.D. dissertation. Students are expected to publish dissertation related research, and encouraged to submit a substantial part of their research for publication before Ph.D. completion. A student is expected to submit a dissertation outline and proposed timetable for dissertation completion six months before the estimated date of final defense. These plans must be approved by the advisory committee, and a copy submitted as part of the meeting report to the CEB Chair.

The Ph.D. in evolutionary biology is awarded based upon the candidate's having:

- Submitted a written dissertation reporting results of the student's original research in a form suitable for publication, which must be approved by the faculty advisor and dissertation committee.
- Successfully completed a final oral examination covering the student's field of specialization.
- Final approval of the dissertation by the CEB Chair and the University Dissertation Office.

ADMISSION

We strongly advise students considering application to CEB to begin preparation of their application early in the autumn quarter, so that all materials will arrive by the December 1st deadline. The committee requires GRE General Test scores from all applicants. Foreign applicants whose first language is not English also must submit TOEFL or IELTS test scores with their application materials (<http://gradadmissions.uchicago.edu/admissions/international/>).

Students have the opportunity to apply for the M.S. degree while completing their work for the Ph.D. The M.S. degree is also awarded in special cases, usually in association with Ph.D. requirements for graduate students in the Committee on the Conceptual and Historical Studies of Science.

Further information also may be obtained from the program's home at <http://evbio.uchicago.edu>, or by sending an email to darwin@uchicago.edu.

EVOLUTIONARY BIOLOGY COURSES

EVOL 30196. Cultural Evolution. 100 Units.

This course explores the nature of process of cultural evolution. After establishing a background on the characteristics of biological evolution, we consider topics in cultural evolution that explore similarities and differences between processes of biological and cultural evolution, and theoretical and conceptual innovations necessary to deal with the latter, using a variety of approaches and methodologies, including agent-based modeling, "big data" approaches, and case studies. These will include topics like: the nature of inheritance, the limits of 'memes', the role of cognitive development, the coevolution of cognition and lithic technology, the scaffolding and evolution of social support, institutions, organizations and firms, the structure of scientific communities, entrenchment and the emergence of conventions and standards, the role of technology, horizontal vs. vertical transmission, multichannel inheritance, economic markets, the nature of innovation, and the role of history.

Equivalent Course(s): PHIL 52805, SOCI 40196, CHSS 40196

EVOL 30200. Chordates: Evolution and Comparative Anatomy. 100 Units.

Chordate biology emphasizes the diversity and evolution of modern vertebrate life, drawing on a range of sources (from comparative anatomy and embryology to paleontology, biomechanics, and developmental genetics). Much of the work is lab-based, with ample opportunity to gain firsthand experience of the repeated themes of vertebrate body plans, as well as some of the extraordinary specializations manifest in living forms. The instructors, who are both actively engaged in vertebrate-centered research, take this course beyond the boundaries of standard textbook content.

Instructor(s): M. Coates Terms Offered: Winter. L.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence, including BIOS 20187 or BIOS 20235

Note(s): Not offered Winter 2019 - Offered Winter 2020 and every other year thereafter.

Equivalent Course(s): ORGB 30250, BIOS 22250

EVOL 30300. Key Issues in Early Vertebrate Evolution. 100 Units.

Equivalent Course(s): ORGB 31300

EVOL 31200. Data Analysis in Ecol/Evol. 100 Units.

The course provides a basic introduction to statistics for biologists. We cover experimental design and many of the potential pitfalls associated with data analysis, including pseudoreplication, multiple testing, regression effects, setting up appropriate null models, and graphical presentation. Assumptions underlying elementary tests, including non-parametric vs parametric and fixed vs random effects will be clarified. We will not cover advanced methods of analysis, beyond straightforward linear models. Students will be encouraged to analyse their own datasets using R.

Instructor(s): T. Price Terms Offered: Autumn. will be offered in Autumn 2018

Note(s): Required text: M. Whitlock & D. Schluter, Analysis of Biological Data, 2nd edition.

Equivalent Course(s): ECEV 31200

EVOL 31201. Mammalian Evolutionary Biology. 100 Units.

This course examines mammalian evolution-the rise of living mammals from ancient fossil ancestors stretching back over 300 million years. Lectures focus on the evolutionary diversification of mammals, including anatomical structure, evolutionary adaptations, life history, and developmental patterns. Labs involve detailed comparative study of mammalian skeletons, dissection of muscular and other systems, trips to the Field Museum to study fossil collections, and studies of human anatomy at the Pritzker School of Medicine. Students will learn mammalian evolution, functional morphology, and development, and will gain hands-on experience in dissection. Taught by instructors who are active in scientific research on mammalian evolution, the course is aimed to convey new insights and the latest progress in mammalian paleontology, functional morphology, and evolution. Prerequisite(s): Second-year standing and completion of a Biological Sciences Fundamentals sequence; or GEOS 13100-13200 or GEOS 22300, or consent of instructors.

Instructor(s): Z. Luo, K. Angielczyk Terms Offered: Autumn. L.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235; or GEOS 13100-13200 or GEOS 22300, or consent of instructors.

Equivalent Course(s): ORGB 31201, BIOS 23262

EVOL 31700. Macroevolution. 100 Units.

Patterns and processes of evolution above the species level, in both recent and fossil organism. A survey of the current literature, along with case studies.

Instructor(s): D. Jablonski Terms Offered: Spring

Equivalent Course(s): GEOS 36800

EVOL 31800. Taphonomy. 100 Units.

Lecture and research course on patterns and processes of fossilization, including rates and controls of soft tissue decomposition, post mortem behavior of skeletal hard parts, concentration and burial of remains, scales of time averaging, and the net spatial and compositional fidelity of (paleo)biologic information, including trends across environments and evolutionary time. Offered alternate years.

Instructor(s): S. Kidwell

Equivalent Course(s): GEOS 36700

EVOL 31900. Topics in Paleobiology. 100 Units.

In this seminar we investigate paleobiological or multidisciplinary topics of current interest to students and faculty. Previous subjects include the origin of phyla, historical and macro-ecology, the stratigraphic record and evolutionary patterns, and climate and evolution.

Instructor(s): D. Jablonski, S. Kidwell, T. Price Terms Offered: Autumn

Equivalent Course(s): ECEV 36900, GEOS 36900

EVOL 32245. Biomechanics: How Life Works. 100 Units.

This course will explore form and function in a diversity of organisms, using the principles of physics and evolutionary theory to understand why living things are shaped as they are and behave in such a diversity of ways. Biomechanics is at the interface of biology, physics, art, and engineering. We will study the impact of size on biological systems, address the implications of solid and fluid mechanics for organismal design, learn fundamental principles of animal locomotion, and survey biomechanical approaches. Understanding the mechanics of biological organisms can help us gain insight into their behavior, ecology and evolution.

Instructor(s): M. Westneat Terms Offered: Spring, L. Spring.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence. Physics useful.

Note(s): This course will include a lab and will alternate years with BIOS 22233.

Equivalent Course(s): ORGB 32245, BIOS 22245

EVOL 32400. Invertebrate Paleobiology and Evolution. 100 Units.

This course provides a detailed overview of the morphology, paleobiology, evolutionary history, and practical uses of the invertebrate and microfossil groups commonly found in the fossil record. Emphasis is placed on understanding key anatomical and ecological innovations within each group and interactions among groups responsible for producing the observed changes in diversity, dominance, and ecological community structure through evolutionary time. Labs supplement lecture material with specimen-based and practical application sections. An optional field trip offers experience in the collection of specimens and raw paleontological data. Several "Hot Topics" lectures introduce important, exciting, and often controversial aspects of current paleontological research linked to particular invertebrate groups. (L)

Instructor(s): M. Webster Terms Offered: Autumn

Prerequisite(s): GEOS 13100 and 13200, or equivalent. Students majoring in Biological Sciences only; Completion of the general education requirement in the Biological Sciences, or consent of instructor.

Equivalent Course(s): GEOS 36300, BIOS 23261, GEOS 26300

EVOL 33700. Developmental Genetics & Evolution. 100 Units.

Equivalent Course(s): BIOS 20256

EVOL 33850. Evolution and Development. 100 Units.

The course will provide a developmental perspective on animal body plans in phylogenetic context. The course will start with a few lectures, accompanied by reading assignments. Students will be required to present a selected research topic that fits the broader goal of the course and will be asked to submit a referenced written version of it after their oral presentation. Grading will be based on their presentation (oral and written) as well as their contributions to class discussions. Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Instructor(s): U. Schmidt-Ott Terms Offered: Autumn

Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Equivalent Course(s): BIOS 22306, DVBI 33850, ORGB 33850

EVOL 35300. Phylogenetic Comparative Methods. 100 Units.

This is a graduate seminar course about the uses of phylogenetic trees in evolution and ecology, emphasizing historical inference of phenotypic traits, geographic ranges, and community ecology. (This is not a course on how to infer phylogenies, or their uses in studies of molecular evolution and population genetics.) Within this scope we will focus on topics of popular interest and relevance to student research. The format of the 2-hour weekly meeting will be somewhat fluid, but I anticipate giving introductory remarks or a lecture on main topics, followed by discussion of primary literature, and opportunities to work hands-on with software (bring your own laptop). Small-group assignments will be given to develop and present short tutorials on conducting analyses of real data.

Instructor(s): R. Ree, A. Hipp

EVOL 35301. Birds of the World. 100 Units.**EVOL 35401. Reconstructing the Tree of Life: An Introduction to Phylogenetics. 100 Units.**

This course is an introduction to the tree of life (phylogeny): its conceptual origins, methods for discovering its structure, and its importance in evolutionary biology and other areas of science. Topics include history and concepts, sources of data, methods of phylogenetic analysis, and the use of phylogenies to study the tempo and mode of lineage diversification, coevolution, biogeography, conservation, molecular biology, development, and epidemiology. One Saturday field trip and weekly computer labs required in addition to scheduled class time. This course is offered in alternate (odd) years.

Instructor(s): R. Ree. Terms Offered: Autumn, L.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence or consent of instructor

Note(s): This course is offered in alternate (odd) years.

Equivalent Course(s): BIOS 23404

EVOL 35800. Classics in Evolutionary Genetics. 100 Units.

Major classic papers in evolutionary genetics that had great impact on the development of the field are reviewed.

Instructor(s): M. Long, C-I Wu Terms Offered: Autumn. will be offered in Autumn 2018

Equivalent Course(s): ECEV 35800

EVOL 35901. Genomic Evolution I. 100 Units.

Canalization, a unifying biological principle first enunciated by Conrad Waddington in 1942, is an idea that has had tremendous intellectual influence on developmental biology, evolutionary biology, and mathematics. In this course we will explore canalization in all three contexts through extensive reading and discussion of both the classic and modern primary literature. We intend this exploration to raise new research problems which can be evaluated for further understanding. We encourage participants to present new ideas in this area for comment and discussion.

Instructor(s): M. Long, J. Reintz, and C-I. Wu Terms Offered: TBD. not offered in 2018-19

Equivalent Course(s): ECEV 35901, STAT 35410

EVOL 36700. Morphometrics. 100 Units.

This graduate-level course serves as an introduction to the field of morphometrics (the analysis of organismal shape). Quantitative exploratory and confirmatory techniques involving both traditional (length-based) and geometric (landmark-based) summaries of organismal shape are introduced in a series of lectures and practical exercises. Emphasis is placed on the application of morphometric methods to issues such as (but not restricted to) quantification of intraspecific variability, interspecific differences, disparity, ontogenetic growth patterns (allometry), and phylogenetic changes in morphology. Relevant statistical and algebraic operations are explained assuming no prior background. Students are required to bring personal laptop computers, and are expected to acquire and analyze their own data sets during the course.

Instructor(s): M. Webster Terms Offered: Winter

Equivalent Course(s): GEOS 36000

EVOL 36900. Biopsychology of Sex Differences. 100 Units.

This course will explore the biological basis of mammalian sex differences and reproductive behaviors. We will consider a variety of species, including humans. We will address the physiological, hormonal, ecological and social basis of sex differences. To get the most from this course, students should have some background in biology, preferably from taking an introductory course in biology or biological psychology.

Instructor(s): Mateo, J. Terms Offered: Autumn

Equivalent Course(s): PSYC 31600, GNSE 30901, CHDV 30901

EVOL 36905. Topics in Conservation Paleobiology. 100 Units.

Paleobiological data from very young sedimentary records, including skeletal 'death assemblages' actively accumulating on modern land surfaces and seabeds, provide unique information on the status of present-day populations, communities, and biomes and their responses to natural and anthropogenic stress over the last few decades to millennia. This course on the emerging discipline of 'conservation paleobiology' uses weekly seminars and individual research projects to introduce how paleontologic methods, applied to modern samples, can address critical issues in the conservation and restoration of biodiversity and natural environments, including such basic questions as 'has a system changed, and if so how and when relative to suspected stressors?'. The course will include hands-on experience, either in the field or with already-collected marine benthic samples, to assess societally relevant ecological change in modern systems over time-frames beyond the reach of direct observation. Enrollment limited.

Instructor(s): S. Kidwell Terms Offered: Winter

Prerequisite(s): Additional Notes For undergraduates: completion of GEOS 13100-13200-13300 or equivalent or completion of a 20000 level course in Paleontology.

Equivalent Course(s): GEOS 26905, GEOS 36905

EVOL 38600. Apes and Human Evolution. 100 Units.

This course is a critical examination of the ways in which data on the behavior, morphology, and genetics of apes have been used to elucidate human evolution. We emphasize bipedalism, hunting, meat eating, tool behavior, food sharing, cognitive ability, language, self-awareness, and sociability. Visits to local zoos and museums, film screenings, and demonstrations with casts of fossils and skeletons required.

Instructor(s): R. Tuttle Terms Offered: Spring

Prerequisite(s): BIOS 10130. NO BIOLOGICAL SCIENCES MAJORS OR NON-BIOLOGY PRE-MED STUDENTS, except by petition.

Equivalent Course(s): HIPS 21428, BIOS 13253, ANTH 21428, ANTH 38600

EVOL 40100. Grants, Publications, and Professional Issues. 100 Units.

Covers professional topics in evolutionary biology, primarily strategies in grant writing and review. Each student will work towards the submission of an application of their choice. The course meets weekly and involves extensive writing and discussion.

Instructor(s): J. Bergelson, R. Ho, M. Coates Terms Offered: Autumn

Note(s): Open to first and second year graduate students in the Darwinian Sciences Cluster

Equivalent Course(s): ECEV 40100, ORGB 40101

EVOL 40200. Advanced Topics in Ethics for the Darwinian Sciences. 100 Units.

This course covers advanced topics in ethics relevant to senior Ph.D. students in the Darwinian Sciences. CEB students are required to successfully complete this course before being awarded the Ph.D.

Instructor(s): M. Coates, P. Herendeen Terms Offered: Winter

Prerequisite(s): Open to Ph.D. students in the Darwinian Sciences

Equivalent Course(s): ORGB 40200, ECEV 40200

EVOL 41500. Topics in Stratigraphy and Biosedimentology. 100 Units.

Seminar course using the primary literature and/or a field problem. Topic selected from the rapidly evolving fields of sequence stratigraphy, basin analysis, and animal sediment relationships.

Equivalent Course(s): GEOS 38400

EVOL 42600. Community Ecology. 100 Units.

Lectures and readings cover advanced topics in multi-species systems, and include an introduction to basic theoretical approaches.

Instructor(s): J.T. Wootton Terms Offered: Autumn

Equivalent Course(s): ECEV 42600

EVOL 42800. Population Ecology. 100 Units.

A lecture course on the empirical and theoretical approaches to the study of natural populations, including field methodologies and quantitative approaches. Includes computer assignments.

Instructor(s): C. Pfister Terms Offered: Winter

Equivalent Course(s): ECEV 42800

EVOL 43248. Research Methods in Behavior and Development. 100 Units.

In this graduate seminar we will discuss research design, experimental methods, statistical approaches and field techniques. Other topics will be covered depending on participant interests, such as acoustic analyses, ethogram development, event recorders, spectrophotometers, marking methods, spatial analyses and grant-writing strategies. The course is primarily designed for studies of non-human animals, although studies of human behavior, especially developmental studies, will be addressed.

Instructor(s): J. Mateo Terms Offered: Winter

Prerequisite(s): Permission of instructor.

Note(s): Not offered 2014-15

Equivalent Course(s): CHDV 23248, CHDV 43248

EVOL 44001. Molecular Evolution I: Fundamentals and Principles. 100 Units.

The comparative analysis of DNA sequence variation has become an important tool in molecular biology, genetics, and evolutionary biology. This course covers major theories that form the foundation for understanding evolutionary forces that govern molecular variation, divergence, and genome organization. Particular attention is given to selectively neutral models of variation and evolution, and to alternative models of natural selection. The course provides practical information on accessing genome databases, searching for homologous sequences, aligning DNA and protein sequences, calculating sequence divergence, producing sequence phylogenies, and estimating evolutionary parameters.

Instructor(s): M. Kreitman Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235 and two quarters of calculus, or consent of instructor.

Equivalent Course(s): ECEV 44001, BIOS 23258

EVOL 44002. Molecular Evolution II: Genes and Genomes. 100 Units.

This course covers the knowledge and well-established evolutionary analyses of genes and genomes, as well as related areas (e.g., origination and evolution of new genes, exon-intron structure, sex-related genes, sex-determination genetic systems, transposable elements, gene regulation systems, duplication of genes and genomes, evolution of genome sizes). These topics are discussed under the processes driven by various evolutionary forces and genetic mechanisms. The analysis of these problems is conducted with the genomic context. Lectures, discussions, and experiments are combined.

Instructor(s): M. Long Terms Offered: Spring. This course is offered in alternate (odd) years.

Prerequisite(s): BIOS 23258 or consent of instructor

Equivalent Course(s): BIOS 23259, ECEV 44002

EVOL 45500. Biogeography. 100 Units.

This course examines factors governing the distribution and abundance of animals and plants. Topics include patterns and processes in historical biogeography, island biogeography, geographical ecology, areography, and conservation biology (e.g., design and effectiveness of nature reserves).

Instructor(s): B. Patterson (odd years, lab). L., Heaney (even years, discussion) Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence and a course in either ecology, evolution, or earth history; or consent of instructor

Equivalent Course(s): GEOG 25500, GEOG 35500, BIOS 23406, ENST 25500

EVOL 46200. Evolution and the Fossil Record. 100 Units.

This course serves as an introduction to the practical and theoretical issues involved in obtaining primary systematic data from the fossil record, and demonstrates the criticality of such data to the rigorous documentation and interpretation of evolutionary patterns. Precise topics of the seminar discussions will vary from year to year depending on relevance to student research projects and interest, but are likely to focus on issues such as (but not restricted to) practical techniques in specimen-based paleontology (including fossil preparation and photography), species delimitation (including species concepts, variability, and ecophenotypy), stratigraphic/geographic range determination (including biostratigraphic correlation), phylogeny reconstruction (including the relevance of stratigraphic data), and the importance of these topics to broader macroevolutionary issues such as diversity/disparity dynamics and the determination of evolutionary trends, rates and processes.

Equivalent Course(s): GEOS 36200

EVOL 46700. Advanced Topics in Behavioral Ecology. 100 Units.

This is a reading course covering advanced topics in behavioral ecology. The list of topics to be covered will be based in part on student interests, but may include: behavior and conservation, communication, mating systems, sexual conflict, and sperm competition. This course is designed as a graduate course, but advanced undergraduates may enroll with the permission of the instructor.

Instructor(s): S. Pruett-Jones, T. Price Terms Offered: Winter

Equivalent Course(s): ECEV 36700

EVOL 48412. Publications, Grants, and the Academic Job Market. 100 Units.

In this graduate seminar we will discuss how to write and publish scientific articles, prepare grant applications, write CVs and job applications, and give job talks and interviews. In other words, everything you always wanted to know about being successful in academia but were afraid to ask.

Instructor(s): D. Maestriperi Terms Offered: Autumn

Equivalent Course(s): PSYC 48412, CHDV 48412

EVOL 49401. Approaches to Teaching in The Darwinian Sciences. 100 Units.

This course will introduce different teaching philosophies and methods that address how to be an effective teacher in the Darwinian Sciences. Specifically, the course will address what skills and knowledge undergraduates need to acquire and which assignments best teach these skills. Students will prepare course syllabi, discuss different approaches to teaching, and draft a philosophy of teaching statement. The overall goal for the course is that the students think critically about the art of teaching and formulate their own thoughts on the matter to better prepare them for their own careers in teaching.

Equivalent Course(s): ECEV 49401, ORGB 49401

EVOL 49500. Teaching in Evolutionary Biology. 100 Units.

Under the supervision of University faculty, graduate students in the Evolutionary Biology may serve as teaching assistants for courses in the College and relevant Graduate Divisions. Students will be evaluated and mentored throughout the quarter by their faculty supervisor, and at the end of the quarter by enrolled students. Students must choose the instructor name from the faculty listing in the Time Schedules and register using that instructor's assigned section number.

Instructor(s): Staff

Prerequisite(s): successful fulfillment of the BSD teaching requirement and consent of instructor.

EVOL 49600. Graduate Readings in Evolutionary Biology at the Field Museum. 300.00 Units.

Directed individual reading courses supervised by CEB faculty members who are curators at the Field Museum. Students must choose the instructor name from the faculty listing in the Time Schedules and register using that instructor's assigned section number.

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

EVOL 49700. Graduate Readings in Evolutionary Biology. 300.00 Units.

Directed individual reading courses in evolutionary biology supervised by CEB faculty members. Students must choose the instructor name from the faculty listing in the Time Schedules and register using that instructor's assigned section number.

Instructor(s): Staff.

Prerequisite(s): consent of instructor.

EVOL 49800. Off-Campus Grad Rsch: Evolution. 300.00 Units.

Advanced research under the direction of the faculty of the Committee on Evolutionary Biology, undertaken away from the University of Chicago campus at the Field Museum, the Chicago Zoological Park, Lincoln Park Zoo, established biological field stations under the direction of their staffs, or other locations approved by the Chair and the student's advisory committee. Students must choose the instructor name from the faculty listing in the Time Schedules and register using that instructor's assigned section number.

Instructor(s): Staff

Prerequisite(s): Consent of Instructor

EVOL 49900. Graduate Research - On Campus. 300.00 Units.

Advanced research under the direction of the faculty of the Committee on Evolutionary Biology. While any approved research problem may be pursued under this course number, special attention is called to the following research fields available in the Committee: population ecology and genetics, entomology, applied ecology, plant biology, systematics of fossil invertebrates, molluscs, problems in the systematics of arthropods, herpetology, mammalogy, ornithology, and ichthyology, theoretical biology, animal behavior, paleoecology, molecular evolution, functional morphology, evolution of development, community ecology and evolution, evolutionary paleobiology and macroevolution, and physiological ecology. Students must choose the instructor name from the faculty listing in the Time Schedules and register using that instructor's assigned section number.

Instructor(s): Staff

Prerequisite(s): Consent of Instructor

EVOL 70000. Advanced Study: Evolutionary Biology. 300.00 Units.

Advanced Study: Evolutionary Biology



COMMITTEE ON GENETICS, GENOMICS, AND SYSTEMS BIOLOGY

Chair

- Marcelo Nobrega

Professors

- Erin Adams, Biochemistry and Molecular Biology
- Graeme Bell, Medicine
- Joy Bergelson, Ecology & Evolution
- Douglas K. Bishop, Radiation & Cellular Oncology
- Anna Di Rienzo, Human Genetics
- M. Eileen Dolan, Medicine
- Wei Du, Ben May Department for Cancer Research
- Richard Fehon, Molecular Genetics & Cell Biology
- Edwin L. Ferguson, Molecular Genetics & Cell Biology
- Yoav Gilad, Human Genetics
- T. Conrad Gilliam, Human Genetics
- Benjamin Glick, Molecular Genetics & Cell Biology
- Michael Glotzer, Molecular Genetics & Cell Biology
- Christopher Gomez, Neurology
- Jean Greenberg, Molecular Genetics & Cell Biology
- Robert Grossman, Medicine
- Chuan He, Chemistry
- Robert Ho, Organismal Biology & Anatomy
- Barbara Kee, Pathology
- Martin Kreitman, Ecology & Evolution
- Stephen J. Kron, Molecular Genetics & Cell Biology
- Bruce T. Lahn, Human Genetics
- Michelle M. Le Beau, Medicine
- Manyuan Long, Ecology & Evolution
- Mary Sara McPeck, Statistics
- Marcelo Nobrega, Human Genetics
- John Novembre, Human Genetics
- Carole Ober, Human Genetics
- Olufunmilayo Olopade, Medicine
- Brian J. Popko, Neurology
- Ilaria Rebay, Ben May Department for Cancer Research
- Rama Ranganathan, Biochemistry & Molecular Biology
- John Reinitz, Statistics
- Marsha Rosner, Ben May Department for Cancer Research
- Lucia Rothman-Denes, Molecular Genetics & Cell Biology
- Michael Rust, Molecular Genetics & Cell Biology
- Andrey Rzhetsky, Medicine
- Neil H. Shubin, Organismal Biology & Anatomy
- Jonathan P. Staley, Molecular Genetics & Cell Biology
- Matthew Stephens, Human Genetics
- Joseph W. Thornton, Ecology & Evolution
- Aaron Turkewitz, Molecular Genetics & Cell Biology
- Chung-I Wu, Ecology & Evolution
- Xiaoxi Zhuang, Neurobiology

Associate Professors

- Luis Barreiro, Medicine, Genetic Medicine
- D. Allan Drummond, Biochemistry & Molecular Biology
- Tong-Chuan He, Surgery
- Sally Horne-Badovinac, Molecular Genetics & Cell Biology
- Jocelyn Malamy, Molecular Genetics & Cell Biology
- Laurens J. Mets, Molecular Genetics & Cell Biology
- Ivan Moskowitz, Pediatrics
- Edwin Munro, Molecular Genetics & Cell Biology
- Alex Ruthenburg, Molecular Genetics & Cell Biology
- Urs Schmidt-Ott, Organismal Biology & Anatomy
- Savas Tay, Molecular Engineering

Assistant Professors

- Anindita Basu, Medicine, Genetic Medicine
- Ishanu Chattopadhyay, Medicine
- Mengjie Chen, Medicine, Genetic Medicine
- Xin He, Human Genetics
- Ellie Heckscher, Molecular Genetics & Cell Biology
- Hae Kyun Im, Medicine, Genetic Medicine
- Paschalis Kratsios, Neurobiology
- Heng-Chi Lee, Molecular Genetics & Cell Biology
- Yang Li, Medicine, Genetic Medicine
- Megan McNerney, Pathology
- Matthias Steinrucken, Ecology & Evolution
- Lixing Yang, Ben May Department for Cancer Research
- Xiaochang Zhang, Human Genetics

**FOR INFORMATION ON THE COMMITTEE ON GENETICS, GENOMICS & SYSTEMS BIOLOGY
PLEASE SEE OUR WEBSITE: <http://ggsb.uchicago.edu/>**

The Committee on Genetics, Genomics & Systems Biology (<https://ggsb.uchicago.edu>) (GGSB) is an interdisciplinary PhD granting program that brings together over 60 training faculty (<https://ggsb.uchicago.edu/research>) representing numerous departments at the University of Chicago. The GGSB program is aimed at training PhD scholars for careers as independent scientists in basic and applied biomedical research and education, leading to Doctor of Philosophy in Genetics. Our PhD training program combines a foundation in modern genetic analysis with training in current methods for formulating and addressing biological questions in the context of complex systems. The presence of both basic and clinical sciences in the Division of Biological Sciences enhances the Committee's broad interdisciplinary approach to teaching and research. GGSB provides an exciting environment to pursue rigorous, high quality training with flexibility in designing programs to meet individual needs. GGSB's goal is to provide an intellectually stimulating, collegial, and supportive environment for students to progress smoothly from research training to careers as independent scientists.

Curriculum and Timeline - First Year (<https://ggsb.uchicago.edu/page/curriculum-timeline-first-year>)

Formal Coursework: Choice of Two GGSB Tracks: Empirical Track (<https://ggsb.uchicago.edu/page/ggsb-empirical-track-coursework>) **or** **Computational Track** (<https://ggsb.uchicago.edu/page/ggsb-computational-track-coursework>)

To obtain a Ph.D. in the Division of Biological Sciences, nine graded courses are required as detailed below.

GGSB has two tracks, 1) "**Empirical Track** (<https://ggsb.uchicago.edu/page/page/ggsb-empirical-track-coursework>)" and 2) "**Computational Track** (<https://ggsb.uchicago.edu/page/page/ggsb-computational-track-coursework>)". While the two tracks are united by the common goals of using genetic, genomic, and systems biology approaches to address important biological questions, the training focuses are different. Training in the "**Empirical Track** (<https://ggsb.uchicago.edu/page/page/ggsb-empirical-track-coursework>)" is emphasizes experimental techniques, especially those quantitative in nature, while the "**Computational Track** (<https://ggsb.uchicago.edu/page/page/ggsb-computational-track-coursework>)" trains students in building computational skills.

GGSB EMPIRICAL TRACK - FOUR [4] REQUIRED COURSES AND FOUR [4] ELECTIVES PLUS TWO [2] ROTATIONS

Training under the Empirical Track is focused on experimental techniques.

There are five suggested specializations to choose from for students interested in concentrating in the Empirical Track: 1) Model Systems, 2) Population Genetics, 3) Human Genetics, 4) Developmental Genetics, and 5) Genomics & Systems Biology. These five course tracks are suggestions. GGSB encourages students to explore other areas of interest as well.

For the Empirical Track, four [4] required courses and four [4] graded electives must be taken, one of which may be a reading course. The electives can be selected according to the student's interests and the availability of courses.

Four Required Courses:

Genetic Analysis of Model Organisms AND Genomics and Systems Biology

Plus One of the Following Two Courses: Molecular Biology I OR Molecular Biology II

Plus One of the Following Four Courses: Fundamentals of Molecular Evolution OR Principles of Population Genetics I OR Evolutionary Genomics OR Human Variation & Disease

GGSB COMPUTATIONAL TRACK – THREE [3] REQUIRED COURSES AND THREE [3] CORE ELECTIVES PLUS TWO [2] ADDITIONAL ELECTIVES PLUS TWO [2] ROTATIONS

Computational, mathematical, and statistical tools are essential to research in the biological sciences. The University of Chicago has had a long tradition of excellence in these areas, and to continue that tradition, GGSB has developed a focused curriculum to train students in these areas.

There are four suggested specializations for this track: 1) Population Genetics & Evolution, 2) Statistical Genetics, 3) Computational Genomics, and 4) Computational Cell Biology. GGSB encourages students to explore other areas of interest as well.

The Computational track curriculum trains students to address fundamental biological questions and to master the three skillsets that are essential to computational genomics research: probabilistic modeling, statistical inference, and computational algorithms & data structures. This curriculum is also unique in its focus on communication skills, both in terms of writing and speaking. This emphasis emerges from a perspective that computational biologists need to clearly explain complex algorithms and results in order to both effectively share their research products and to collaborate with diversely trained colleagues.

For additional information please click here to view the Doctoral Training in Computational Genomics (<http://compbio.uchicago.edu>) website.

Three [3] Required Courses in Computational Biology and Statistics: Statistical Theory and Methods I AND Fundamentals of Computational Biology: Models and Inference AND Fundamentals of Computational Biology: Algorithms and Applications

AND Three [3] Core Elective Courses Chosen from the Following List: Human Genetics I OR Genetic Analysis of Model Organisms OR Introductory Statistical Genetics OR Principles of Population Genetics I OR Evolution of Biological Molecules OR Biophysics of Biomolecules OR Human Variation and Disease OR Genomics and Systems Biology OR Quantitative Analysis of Biological Dynamics

PLUS Two [2] Additional Elective Courses Chosen From the Following List: Fundamentals of Cell and Molecular Biology OR Applied Linear Statistical Methods OR Topics in Statistical Machine Learning OR Computational Systems Biology OR Mathematical Computation I – Matrix Computation OR Introduction to Scientific Computing for Biologists OR Fundamentals of Genetics OR Statistical Theory and Methods II OR Multivariate Statistical Analysis: Applications and Techniques OR Theoretical Ecology OR Pattern Recognition OR Bayesian Analysis and Principles of Statistics OR Statistical Genetics OR Machine Learning

ROTATIONS

Students undertake short research projects in at least two different laboratories before beginning their dissertation research. The purpose of the rotation is to expose the student to different research environments, broaden his/her acquaintance with useful laboratory techniques, and introduce him/her to the conceptual framework of experimental design. The distribution of course offerings makes it difficult for students to undertake rotations in Autumn Quarter of the first academic year. Therefore, rotations are performed in the winter or spring and summer quarters. The winter and spring rotations last 10 weeks to coincide with the academic quarter. The summer rotation lasts 5 weeks, when the student is able to devote full-time to research. Students wishing to do a third rotation may do so during the second half of Summer Quarter.

APPLICATION

For information about applying to our graduate program, please visit: <https://apply-bsd.uchicago.edu/apply/>.

CURRICULUM AND TIMELINE - SECOND YEAR ([HTTPS://GGSB.UCHICAGO.EDU/PAGE/CURRICULUM-TIMELINE-SECOND-YEAR](https://ggsb.uchicago.edu/page/curriculum-timeline-second-year))

At the beginning of the second year of training, students choose a research advisor. Most of the second year is spent developing a research project. A Thesis Advisory Committee is chosen by the student in consultation with his/her mentor and the GGSB Student Advisory Committee. A written research proposal is provided to the Thesis Advisory Committee in advance of the first committee meeting. During this meeting, the student will present and defend his/her proposal. This first meeting constitutes the Qualifying Exam for Ph.D. candidacy. Following Qualifying Exam, the Thesis Advisory Committee meets with, and advises the student on a regular basis throughout the remainder of his/her training.

CURRICULUM AND TIMELINE - ADVANCED YEARS ([HTTPS://GGSB.UCHICAGO.EDU/PAGE/CURRICULUM-TIMELINE-ADVANCED-YEARS](https://ggsb.uchicago.edu/page/curriculum-timeline-advanced-years))

After passing the Qualifying Exam and throughout the duration of their of their studies, students conduct full-time thesis research while continuing to attend seminars, journal clubs, and other educational meetings. Students are welcome to audit courses in which they have an interest. Finally, each graduating student writes a dissertation culminating in a public Thesis Defense.

APPLICATION

For information about applying to our graduate program, please visit:<https://apply-bsd.uchicago.edu/apply/>.

GENETICS COURSES**GENE 31800. Current Topics in Genetics. 50 Units.**

This course will expose student to current research topics in genetics for the bi-monthly GGSB Invited Seminar Series. This is a required ½ credit course for all GGSB students and will be graded Pass/Fail. Winter, Spring

GENE 31900. Introduction to Research. 100 Units.

Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students.

Instructor(s): Staff Terms Offered: Autumn, Winter

Equivalent Course(s): DVBI 31900, BCMB 31900, HGEN 31900, MGCB 31900

GENE 35400. Advanced Developmental Biology. 100 Units.

This course provides both an overview of developmental biology and an in-depth coverage of selected topics, emphasizing the origins of classical concepts in the field as well as modern molecular and genetic approaches to the study of developmental processes. Subjects include cell fate determination, growth control, stem cells, signal transduction, neurogenesis, and cell polarity in developing systems. Underlying mechanisms are illuminated through discussion of key experiments. Discussion sections cover selected papers from the developmental biology literature, with emphasis on critical evaluation of experimental evidence.

Instructor(s): "E. Ferguson, R. Fehon" Terms Offered: Winter

Prerequisite(s): "BIOS 20182, 20192, or 20235"

Equivalent Course(s): BIOS 21227

GENE 39900. Readings: Genetics. 300.00 Units.

A course designed by a student and faculty member. All reading courses must be approved by the Curriculum/ Student Affairs Committee prior to registration.

Terms Offered: Summer, Autumn, Winter, Spring

GENE 40100. Thesis Research: Genetics. 300.00 Units.

Thesis Research: Genetics

Instructor(s): Gilad Terms Offered: Summer, Autumn, Winter, Spring

GENE 40200. Non-Thesis Research: Genetics. 300.00 Units.

Non-Thesis Research: Genetics

Instructor(s): Gilad Terms Offered: Summer, Autumn, Winter, Spring



DEPARTMENT OF HUMAN GENETICS

Chair: Carole Ober

Professors

- Habibul Ahsan, Public Health Sciences
- Graeme Bell, Biochemistry and Molecular Biology
- Soma Das
- Anna Di Rienzo
- Elliot Gershon, Psychiatry and Behavioral Neuroscience
- Yoav Gilad
- T. Conrad Gilliam
- Lucy Godley, Medicine
- Bruce T. Lahn
- Michelle M. Le Beau, Medicine
- Natalia Maltsev
- Mary Sara McPeck, Statistics
- Dan L. Nicolae, Statistics
- Marcelo Nobrega
- John Novembre
- Carole Ober
- Andrey Rzhetsky, Medicine
- Matthew Stephens
- Joseph Thornton, Ecology and Evolution
- Olufunmilayo Olopade, Medicine
- Darrel J. Waggoner
- Kevin White

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- Mark Abney
- Ivan Moskowitz, Pediatrics

Assistant Professors

- Mengjie Chen, Medicine
- D. Allan Drummond, Biochemistry and Molecular Biology
- Daniela Del Gaudio
- Xin He
- Hae Kyung Im, Medicine
- Yang Li, Medicine
- Zejuan Li, Medicine
- Vincent J. Lynch
- Brandon Pierce, Public Health Sciences
- Lixing Yang, Medicine
- Xiaochang Zhang

The Department of Human Genetics offers training in a number of fields of human genetics such as human disease, classical genetics, complex trait genetics, population and evolutionary genetics, cytogenetics, neurogenetics, systems biology, pharmacogenetics and developmental human genetics. This coursework is intended for graduate students who plan to pursue research careers and teaching in the emerging areas of modern biology, and is intended for medical students, advanced undergraduate and graduate students in other programs. The Ph.D. program places great emphasis on sound preparation in human genetics, statistical genetics, and molecular biology.

THE DEGREE OF DOCTOR OF PHILOSOPHY

A Ph.D. candidate must fulfill certain formal coursework requirements, pass one preliminary and one qualifying examination, and present a satisfactory dissertation describing the results of original research.

The department expects a knowledge of and proficiency in human genetics. This requirement will normally be met by fulfilling the formal coursework described here, but degree programs are flexible. Courses taken at other institutions, in other programs, or as part of the Pritzker School of Medicine curriculum may substitute for HG courses with approval of the Curriculum Committee. To fulfill the requirements for a Ph.D., nine graded courses are required. In the Department of Human Genetics, a student must take the following three required courses:

MGCB 31400	Genetic Analysis of Model Organisms	100
HGEN 47000	Human Genetics-1	100
HGEN 46900	Human Variation and Disease	100
One of the following:		
HGEN 47100	Intro Statistical Genetics	100
DVBI 35600	Vertebrate Development	100
MGCB 31300	Molecular Biology-II	100
ECEV 35600	Principles of Population Genetics-1	100

The remaining 4 courses are electives chosen from a host of courses in the Biological Sciences Division and Statistics Department. All courses are to be approved by an assigned academic advisor. These courses and many more are designed to develop greater proficiency in your particular sub discipline.

A student is also required to do two laboratory rotations before selecting an advisor and laboratory in which to pursue a Ph.D. dissertation. These rotations will be graded and together will be equivalent to one elective. All students are required to serve as a teaching assistant for two quarters.

During the second year, students select a thesis advisor and begin laboratory research. To complete the Ph.D. degree, they must prepare, under the general direction of an appointed doctoral committee, a dissertation based upon their original research. A public seminar describing the results of the dissertation research must be presented and the dissertation must be successfully defended before the doctoral committee.

APPLICATION

For information about applying to our graduate program, please visit: <https://apply-bsd.uchicago.edu/apply/>.

HUMAN GENETICS COURSES

HGEN 30100. Appl of Scientific Advncmt to Disease Detection & Management. 75 Units.

HGEN 30400. Protein Fundamentals. 100 Units.

The course covers the physical-chemical phenomena that define protein structure and function. Topics include: the principles of protein folding, molecular motion and molecular recognition; protein evolution, design and engineering; enzyme catalysis; regulation of protein function and molecular machines; proteomics and systems biology. Workshop on X-ray Crystallography: The workshop is an addendum to Protein Fundamentals and is required for all BCMB students. This one week workshop will provide students with an intensive introduction to protein structure determination by x-ray crystallography. In addition to lectures, an extensive laboratory component will give students the opportunity to carry out protein crystallization, data collection (at Argonne), structure determination, refinement, model building and validation.

Instructor(s): E. Ozkan, D. Arac Terms Offered: Autumn

Equivalent Course(s): BCMB 30400, MGCB 30400

HGEN 31100. Evolution of Biological Molecules. 100 Units.

The course connects evolutionary changes imprinted in genes and genomes with the structure, function and behavior of the encoded protein and RNA molecules. Central themes are the mechanisms and dynamics by which molecular structure and function evolve, how protein/RNA architecture shapes evolutionary trajectories, and how patterns in present-day sequence can be interpreted to reveal the interplay data of evolutionary history and molecular properties. Core concepts in macromolecule biochemistry (folding and stability of proteins and RNA, structure-function relationships, kinetics, catalysis) and molecular evolution (selection, mutation, drift, epistasis, effective population size, phylogenetics) will be taught, and the interplay between them explored.

Instructor(s): A. Drummond, J. Thornton Terms Offered: Winter

Prerequisite(s): Comfort with basic computer programming (course will use Python and R); undergraduate biology, chemistry, calculus, and introductory statistics.

Equivalent Course(s): BCMB 31100, ECEV 31100

HGEN 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Equivalent Course(s): BCMB 31400, MGCB 31400, DVBI 31400

HGEN 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion.

Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn

Equivalent Course(s): DVBI 31600, BCMB 31600, MGCB 31600

HGEN 31800. Current Topics in Human Genetics. 50 Units.

This course will expose student to current research topics in Human Genetics through the Seminar Series. This is a required ½ credit course for all Human Genetics students and will be graded Pass/Fail. (Autumn, Winter, Spring)

Instructor(s): Ann Di Rienzo Terms Offered: Autumn Spring Winter

HGEN 31900. Introduction to Research. 100 Units.

Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students.

Instructor(s): Staff Terms Offered: Autumn, Winter

Equivalent Course(s): GENE 31900, DVBI 31900, BCMB 31900, MGCB 31900

HGEN 36400. Molecular Phylogenetics. 100 Units.

While evolution by natural selection is an elegantly simple phenomenon, modern research in evolutionary biology contains a variety of controversial, and sometimes confusing, topics. In this course, we will explore, as a group, a select list of controversial or confusing topics in evolutionary biology through a mix of student-led presentations and discussion of the primary literature. Each student will also write a review paper about his or her selected topic.

Instructor(s): J. Thornton, A. Drummond Terms Offered: Spring. offered in alternate (even) years

Note(s): not offered in 2018-19

Equivalent Course(s): ORGB 36400, ECEV 36400

HGEN 39500. Historical and Conceptual Foundations of DevoEvo. 100 Units.

The goal of this course is to explore the historical and conceptual foundations of Developmental Evolution (DevoEvo) through readings and group discussions of historical and philosophical literature on evolutionary and developmental biology, in particular the role developmental biology played in the formulation of evolutionary theory and its subsequent banishment from the Modern Synthesis. The course begins with a review of nineteenth-century scientific and evolutionary thought, including an examination of competing theories of evolution (Theistic Evolutionism, Lamarckism, Orthogenesis, and Mutation Theory) and their contribution (or lack thereof) to modern evolutionary biology. We then explore how (and why) developmental biology was excluded from the formulation of the Synthesis and Neo-Darwinian thought, and examine the source of continued conflicts between Neo-Darwinism and DevoEvo. The course concludes with a discussion of what (if anything) DevoEvo can contribute to evolutionary theory that other research programs cannot (for example, what kinds of phenomena do developmental mechanisms contribute more to the explanation of evolutionary processes than population genetic mechanisms?).

Instructor(s): V. Lynch. Terms Offered: Winter

Prerequisite(s): For Biology Majors: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235.

Equivalent Course(s): ORGB 39500, BIOS 21418

HGEN 39900. Topics: Human Genetics. 300.00 Units.**HGEN 40300. Non-Thesis Rsch: Human Genetics. 300.00 Units.**

Research conducted by graduate students prior to the qualifying exam.

HGEN 40400. Thesis Research. 300.00 Units.

Dissertation Research conducted by graduate students.

Instructor(s): A DiRienzo Terms Offered: Autumn Spring Summer Winter

HGEN 46900. Human Variation and Disease. 100 Units.

This course focuses on principles of population and evolutionary genetics and complex trait mapping as they apply to humans. It will include the discussion of genetic variation and disease mapping data.

HGEN 47000. Human Genetics-1. 100 Units.

This course covers classical and modern approaches to studying cytogenic, Mendelian, and complex diseases. Topics include chromosome biology, single gene and complex disease, non-Mendelian inheritance, cancer genetics, human population genetics, and genomics. The format includes lectures and student presentations.

Instructor(s): C. Ober, M. Nobrega, D. Waggoner

HGEN 47300. Genomics and Systems Biology. 100 Units.

This lecture course explores technologies for high-throughput collection of genomic-scale data, including sequencing, genotyping, gene expression profiling, and assays of copy number variation, protein expression and protein-protein interaction. In addition, the course will cover study design and statistic analysis of large data sets, as well as how data from different sources can be used to understand regulatory networks, i.e., systems. Statistical tools that will be introduced include linear models, likelihood-based inference, supervised and unsupervised learning techniques, methods for assessing quality of data, hidden Markov models, and controlling for false discovery rates in large data sets. Readings will be drawn from the primary literature. Evaluation will be based primarily on problem sets.

Instructor(s): Y. Gilad Terms Offered: Spring

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235 and STAT 23400 or BIOS 26210 and BIOS 26211

Equivalent Course(s): CABI 47300, BPHS 47300, BIOS 28407, IMMU 47300

HGEN 47400. Introduction to Probability and Statistics for Geneticists. 100 Units.

This course is an introduction to basic probability theory and statistical methods useful for people who intend to do research in genetics or a similar scientific field. Topics include random variable and probability distributions, descriptive statistics, hypothesis testing and parameter estimation. Problem sets and tests will include both solving problems analytically and analysis of data using the R statistical computing environment.

Instructor(s): M. Abney Terms Offered: Autumn

HGEN 48600. Fundamentals of Computational Biology: Models and Inference. 100 Units.

Covers key principles in probability and statistics that are used to model and understand biological data. There will be a strong emphasis on stochastic processes and inference in complex hierarchical statistical models. Topics will vary but the typical content would include: Likelihood-based and Bayesian inference, Poisson processes, Markov models, Hidden Markov models, Gaussian Processes, Brownian motion, Birth-death processes, the Coalescent, Graphical models, Markov processes on trees and graphs, Markov Chain Monte Carlo.

Instructor(s): J. Novembre, M. Stephens Terms Offered: Winter

Prerequisite(s): STAT 244

Equivalent Course(s): STAT 35450

HGEN 48800. Fundamentals of Computational Biology: Algorithms and Applications. 100 Units.

This course will cover principles of data structure and algorithms, with emphasis on algorithms that have broad applications in computational biology. The specific topics may include dynamic programming, algorithms for graphs, numerical optimization, finite-difference, schemes, matrix operations/factor analysis, and data management (e.g. SQL, HDF5). We will also discuss some applications of these algorithms (as well as commonly used statistical techniques) in genomics and systems biology, including genome assembly, variant calling, transcriptome inference, and so on.

Instructor(s): Xin He, Mengjie Chen Terms Offered: Spring

Equivalent Course(s): STAT 35460

HGEN 70000. Advanced Study: Human Genetics. 300.00 Units.

Advanced Study: Human Genetics



COMMITTEE ON IMMUNOLOGY

Chair

- Alexander Chervonsky

Professors

- Erin Adams, Biochemistry and Molecular Biology
- Maria Luisa Alegre, Medicine
- John Alverdy, Surgery
- Albert Bendelac, Pathology
- Eugene Chang, Medicine
- Alexander Chervonsky, Pathology
- Anita Chong, Surgery
- Marcus Clark, Medicine
- Aaron Dinner, Chemistry
- Michaela Gack, Microbiology
- Thomas Gajewski, Pathology and Medicine
- Yoav Gilad, Human Genetics
- Tatyana Golovkina, Microbiology
- Chuan He, Chemistry
- Jeffrey Hubbell, IME
- Bana Jabri, Medicine
- Rima McLeod, Surgery
- Cathryn Nagler, Pathology
- Anthony Reder, Neurology
- Raymond Roos, Neurology
- Olaf Schneewind, Microbiology
- Hans Schreiber, Pathology
- Melody Swartz, IME

Associate Professors

- Luis Barreiro, Medicine
- Fotini Gounari, Medicine
- Barbara Kee, Pathology
- Glenn Randall, Microbiology
- Peter Savage, Pathology
- Anne I. Sperling, Medicine
- Patrick Wilson, Medicine

Assistant Professors

- Nicolas Chevrier, IME
- A. Murat Eren, Medicine
- Daria Esterhazy, Pathology
- Jill de Jong, Pediatrics
- Jun Huang, IME
- Seungmin Hwang, Pathology
- Justin Kline, Medicine
- Andrew Koh, Pathology

Emerita Professor

- Ursula Storb, Molecular Genetics and Cell Biology

The Committee on Immunology offers a graduate program of study leading to the Doctor of Philosophy degree in Immunology. The committee is dedicated to the open exchange of ideas among scholars of all fields, a commitment enhanced by an organizational structure that completely integrates the basic biological sciences with the clinical sciences. This multidisciplinary and integrated approach corresponds well with the reality of

the new biology, where molecular and structural techniques are applied widely and with great success to clinical problems.

The Committee on Immunology is a member of the Biomedical Sciences Cluster, which also includes graduate programs from the Committee on Cancer Biology, Committee on Microbiology, and the Committee on Molecular Metabolism and Nutrition. The four academic units share several common courses, a seminar series and additional common events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study.

In addition to formal course work, the Committee on Immunology sponsors a weekly seminar series, an annual retreat where students and faculty present their research, and several focused group meetings.

ADMISSION

Prospective students interested in obtaining the Ph.D. in Immunology should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Immunology as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- Completion of 9 course credits consisting of basic science, immunology and elective courses.
- A preliminary examination.
- A dissertation based on original research.
- A final thesis examination.

COMMITTEE ON IMMUNOLOGY COURSES

IMMU 30010	Immunopathology	100
IMMU 30266	Molecular Immunology	100
IMMU 30800	Readings: Immunobiology	100
IMMU 30810	Directed Readings in Cancer Immunology	75
IMMU 31000	BMSC All Stars	50
IMMU 31100	Ethics in Scientific Research	50
IMMU 31200	Host Pathogen Interactions	100
IMMU 31500	Advanced Immunology I	100
IMMU 32000	Advanced Immunology II	100
IMMU 39000	Intro Exprmntl Immunology	100
IMMU 40100	Research: Immunology	300
IMMU 40200	Experimental Immunology	50
IMMU 47300	Genomics and Systems Biology	100
IMMU 70000	Advanced Study: Immunology	300



GRADUATE PROGRAM IN INTEGRATIVE BIOLOGY

Chair: Robert K. Ho

Director of Graduate Studies: Mark Westneat

Professors

- Zeray Alemseged
- Michael I. Coates
- Martin Feder
- Edwin L. Ferguson, Molecular Genetics & Cell Biology
- Melina E. Hale
- Nicholas G. Hatsopoulos
- Robert K. Ho
- David Jablonski, Geophysical Sciences
- Raphael Lee, Surgery
- Zhe-Xi Luo
- Daniel Margoliash
- Nipam Patel, Marine Biological Laboratory
- Victoria E. Prince
- Clifton Ragsdale, Neurobiology
- Callum Ross
- Paul Sereno
- Neil H. Shubin
- Mark Westneat

Associate Professors

- Sliman Bensmaia
- Marcus Kronforst, Ecology & Evolution
- Stephanie Palmer
- Urs Schmidt-Ott

Assistant Professors

- Matthew Kaufman
- Graham Slater, Geosciences

Emeritus Faculty

- James A. Hopson
- Michael LaBarbera
- R. Eric Lombard

The graduate program in integrative biology is housed in the Department of Organismal Biology and Anatomy (OBA), which has a long history of training students in integrative organismal biology. During the 1970s, the focus of the (then) Department of Anatomy shifted from the classic purview of anatomy departments in the middle of the 20th century — histology, neurobiology, and cell biology — to more comparative and functionally oriented topics and an explicit focus on evolutionary biology and functional morphology. The neurobiology section of the department expanded first into explicitly comparative areas and later into neuroethology. Over the next twenty years the department evolved into its present configuration with research and teaching foci which include biomechanics/functional morphology, organismal neurobiology, developmental biology, and evolutionary biology, all unified by a shared reference point in the biological hierarchy — the organism — an entity we see as the natural reference for all of the biological sciences since it is the natural unit of selection. We see the intellectual areas presently housed in OBA as inextricably and naturally connected. To understand the organismal level in biology requires an understanding of both how organisms have been shaped over evolutionary time scales and how they are generated on developmental time scales, the various interacting tissue and organ systems that generate organismal functions, and the mutual feedback among these functional, evolutionary, and developmental processes. The high degree of connectivity among our core disciplines is exemplified by the integrative nature of student dissertation projects in OBA and by the high level of interaction and collaboration among our faculty; both faculty and graduate student research in OBA frequently span several of these areas. In recent years there has been a resurgence of interest in and appreciation for organismal-level biology on the national level, putting molecular, genetic, and computational tools and information to use

to understand broader systems-level questions. OBA and its integrative biology program has been actively positioning itself as a leader in research and graduate training in this endeavor.

Research and training in the graduate program focus on the integration of four overlapping areas:

1. **Biomechanics:** the application of methods from engineering and physics to understanding the design of organisms.
2. **Developmental Biology:** understanding how information coded into the genome is translated into the patterns seen in organisms. Our developmental biology program has a special emphasis on the interface between evolution and development, an area sometimes called "EvoDevo".
3. **Neurobiology:** understanding how the nervous system regulates and controls the behavior of animals. Our neurobiology program has a special emphasis on the relationship of the nervous system to behavior (or neuroethology) and the application of quantitative methods to understanding neural function (computational neuroscience).
4. **Paleontology:** documenting and understanding evolutionary patterns and processes through analyses of the fossil record.

Training in the department places an emphasis on familiarity with a broad range of ideas and skills in organismal biology. Although students can conduct research in any of the areas represented in the department, they are encouraged to develop research programs that capitalize on the talents of two or more faculty members with different perspectives. The department also encourages students to interact with other units on campus (such as the Department of Ecology and Evolution and the Committees on Development, Regeneration and Stem Cell Biology; Evolutionary Biology; Genetics, Genomics and Systems Biology; and Neurobiology) as well as the Field Museum of Natural History, the Brookfield and Lincoln Park zoos, the Shedd Aquarium, and the Marine Biological Lab at Woods Hole. Students earning doctorates through the department will be qualified, following suitable postdoctoral training, for research and teaching careers in biology departments, anatomy departments and museums.

DEGREES

MASTER OF SCIENCE

Students are not admitted to the program for the sole purpose of obtaining a Master of Science degree, but this degree is awarded to students from other academic units who require a Master of Science degree as one requirement for the doctorate.

DOCTOR OF PHILOSOPHY

The requirements for the Doctor of Philosophy are as follows:

- Course requirements are individualized and are defined for students early in their stay in the program, based on the student's background and interests. Students will complete a course distribution requirement by the end of their second year. Students must fulfill the divisional requirement of serving as a teaching assistant in two courses and completing ethics training.
- The preliminary examination, consisting of a written segment which covers a range of topics in organismal biology, as well as both the oral and written presentation of a directed research project or dissertation research proposal.
- The completion of a research project and the presentation of a dissertation satisfactory to the department faculty.
- The passing of a final oral examination.

ADMISSION

We strongly advise students considering application to the department to begin preparation of their application early in the autumn quarter, so that all materials will arrive by the December 1 deadline. The department requires GRE General Test scores from all applicants. Foreign applicants whose first language is not English also must submit TOEFL test scores with their application materials. Further information also may be obtained from the department's home page at <http://pondside.uchicago.edu/>.

COURSES

Didactic and seminar courses are offered in each of the departmental research foci. The specific courses presented vary from year to year. A list of current courses can be obtained by contacting the graduate program administrator. Students are encouraged to take courses related to their interests in other academic units on campus.

ORGANISMAL BIOLOGY AND ANATOMY COURSES**ORGB 30001. The Human Body. 125 Units.**

The Human Body course is the first component of the Scientific Foundations of Medicine curriculum in Year 1. The Human Body course will provide you with a foundation in the structural organization of the body. You will learn gross anatomy of the back, thorax, abdomen, pelvis, head and neck, and upper and lower limbs through large and small group teaching sessions, as well as cadaver dissection. Correlations with Radiology and Surgery are an integral part of the course and provide real world clinical context for the anatomic material.

Instructor(s): C. Ross Terms Offered: Summer

Note(s): For Pritzker students only, unless by instructor consent

ORGB 30002. PE: The Human Body. 300.00 Units.**ORGB 30250. Chordates: Evolution and Comparative Anatomy. 100 Units.**

Chordate biology emphasizes the diversity and evolution of modern vertebrate life, drawing on a range of sources (from comparative anatomy and embryology to paleontology, biomechanics, and developmental genetics). Much of the work is lab-based, with ample opportunity to gain firsthand experience of the repeated themes of vertebrate body plans, as well as some of the extraordinary specializations manifest in living forms. The instructors, who are both actively engaged in vertebrate-centered research, take this course beyond the boundaries of standard textbook content.

Instructor(s): M. Coates Terms Offered: Winter. L.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence, including BIOS 20187 or BIOS 20235

Note(s): Not offered Winter 2019 - Offered Winter 2020 and every other year thereafter.

Equivalent Course(s): EVOL 30200, BIOS 22250

ORGB 30260. Chordate Evolutionary Biology. 100 Units.

Equivalent Course(s): BIOS 20260

ORGB 30415. Evolution Before Darwin. 100 Units.

This course will explore the emergence and development of evolutionary thought prior to Charles Darwin's *On the Origin of Species* (1859). We will pay particular attention to the way in which transformism was a feature of nineteenth-century thought more generally, connecting natural history to astronomy, theology, and the study of humanity. Natural philosophers and later scientists who wished to make arguments concerning nature's deep past and hidden or obscured processes (such as the long-term transformations of stars, strata, and organic species) faced an essential problem: the power of observation and experiment was limited. Our class will interrogate this problem, and examine the way in which the development of evolutionary thought prior to Darwin was intimately connected to contentious debates regarding speculation and scientific method. We will conclude by contemplating the ways in which the ideas and challenges raised by transformism and evolution influenced the reception of Darwin's work, and the way in which these ideas and challenges remain embedded within seemingly disparate fields of study today.

Instructor(s): J. Daly Terms Offered: Winter

Equivalent Course(s): HIPS 21415, HIST 25316, ECEV 30415, KNOW 21415

ORGB 31201. Mammalian Evolutionary Biology. 100 Units.

This course examines mammalian evolution-the rise of living mammals from ancient fossil ancestors stretching back over 300 million years. Lectures focus on the evolutionary diversification of mammals, including anatomical structure, evolutionary adaptations, life history, and developmental patterns. Labs involve detailed comparative study of mammalian skeletons, dissection of muscular and other systems, trips to the Field Museum to study fossil collections, and studies of human anatomy at the Pritzker School of Medicine. Students will learn mammalian evolution, functional morphology, and development, and will gain hands-on experience in dissection. Taught by instructors who are active in scientific research on mammalian evolution, the course is aimed to convey new insights and the latest progress in mammalian paleontology, functional morphology, and evolution. Prerequisite(s): Second-year standing and completion of a Biological Sciences Fundamentals sequence; or GEOS 13100-13200 or GEOS 22300, or consent of instructors.

Instructor(s): Z. Luo, K. Angielczyk Terms Offered: Autumn. L.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235; or GEOS 13100-13200 or GEOS 22300, or consent of instructors.

Equivalent Course(s): EVOL 31201, BIOS 23262

ORGB 31300. Key Issues in Early Vertebrate Evolution. 100 Units.

Equivalent Course(s): EVOL 30300

ORGB 32233. Comparative Vertebrate Anatomy. 100 Units.

This course covers the structure and function of major anatomical systems of vertebrates. Lectures focus on vertebrate diversity, biomechanics, and behavior (from swimming and feeding to running, flying, seeing, and hearing). Labs involve detailed dissection of animals (muscles, organs, brains) and a focus on skull bones in a broad comparative context from fishes to frogs, turtles, alligators, mammals, birds, and humans. Field trip to Field Museum and visit to medical school lab for human dissection required.

Instructor(s): M. Westneat. L. Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence.

Note(s): Offered Winter 2019 and every other year thereafter.

Equivalent Course(s): BIOS 22233

ORGB 32245. Biomechanics: How Life Works. 100 Units.

This course will explore form and function in a diversity of organisms, using the principles of physics and evolutionary theory to understand why living things are shaped as they are and behave in such a diversity of ways. Biomechanics is at the interface of biology, physics, art, and engineering. We will study the impact of size on biological systems, address the implications of solid and fluid mechanics for organismal design, learn fundamental principles of animal locomotion, and survey biomechanical approaches. Understanding the mechanics of biological organisms can help us gain insight into their behavior, ecology and evolution.

Instructor(s): M. Westneat Terms Offered: Spring, L. Spring.

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence. Physics useful.

Note(s): This course will include a lab and will alternate years with BIOS 22233.

Equivalent Course(s): BIOS 22245, EVOL 32245

ORGB 32500. Survey of Systems Neuroscience. 100 Units.

This lab-centered course teaches students the fundamental principles of vertebrate nervous system organization. Students learn the major structures and the basic circuitry of the brain, spinal cord and peripheral nervous system. Somatic, visual, auditory, vestibular and olfactory sensory systems are presented in particular depth. A highlight of this course is that students become practiced at recognizing the nuclear organization and cellular architecture of many regions of brain in rodents, cats and primates.

Instructor(s): S. Bensmaia Terms Offered: Autumn

Prerequisite(s): NSCI 20130. For Biological Sciences majors: Three quarters of a Biological Sciences fundamentals sequence

Equivalent Course(s): CPNS 30116, BIOS 24208, NURB 31600, NSCI 23500

ORGB 33265. Human Origins: Milestones in Human Evolution and the Fossil Record. 100 Units.

This course aims at exploring the fundamentals of human origins by tracking the major events during the course of human evolution. Starting with a laboratory based general introduction to human osteology and muscle function, the latest on morphological and behavioral evidence for what makes Homo sapiens and their fossil ancestors unique among primates will be presented. Our knowledge of the last common ancestor will be explored using the late Miocene fossil record followed by a series of lectures on comparative and functional morphology, adaptation and biogeography of fossil human species. With focus on the human fossil record, the emergence of bipedalism, advent of stone tool use and making, abandonment of arboreality, advent of endurance walking and running, dawn of encephalization and associated novel life histories, language and symbolism will be explored. While taxonomic identities and phylogenetic relationships will be briefly presented, the focus will be on investigating major adaptive transitions and how that understanding helps us to unravel the ecological selective factors that ultimately led to the emergence of our species. The course will be supported by fresh data coming from active field research conducted by Prof. Alemseged and state of the art visualization methods that help explore internal structures. By tracing the path followed by our ancestors over time, this course is directly relevant to reconnoitering the human condition today and our place in nature.

Instructor(s): Z. Alemseged Terms Offered: Autumn

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence, or consent of Instructor.

Equivalent Course(s): BIOS 22265, ANTH 28110

ORGB 33600. Vertebrate Development. 100 Units.

This advanced-level course combines lectures, student presentations, and discussion sessions. It covers major topics on the developmental biology of embryos (e.g. formation of the germ line, gastrulation, segmentation, nervous system development, limb patterning, organogenesis). We make extensive use of the primary literature and emphasize experimental approaches including embryology, genetics, and molecular genetics.

Instructor(s): V. Prince, P. Kratsios. Terms Offered: Spring

Prerequisite(s): For Biological Sciences majors: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20189 or BIOS 20190

Equivalent Course(s): BIOS 21356, MGCB 35600, DVBI 35600

ORGB 33850. Evolution and Development. 100 Units.

The course will provide a developmental perspective on animal body plans in phylogenetic context. The course will start with a few lectures, accompanied by reading assignments. Students will be required to present a selected research topic that fits the broader goal of the course and will be asked to submit a referenced written version of it after their oral presentation. Grading will be based on their presentation (oral and written) as well as their contributions to class discussions. Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Instructor(s): U. Schmidt-Ott Terms Offered: Autumn

Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Equivalent Course(s): BIOS 22306, DVBI 33850, EVOL 33850

ORGB 34650. Computational Approaches to Cognitive Neuroscience. 100 Units.

This course is concerned with the relationship of the nervous system to higher order behaviors (e.g., perception, object recognition, action, attention, learning, memory, and decision making). Psychophysical, functional imaging, and electrophysiological methods are introduced. Mathematical and statistical methods (e.g. neural networks and algorithms for studying neural encoding in individual neurons and decoding in populations of neurons) are discussed. Weekly lab sections allow students to program cognitive neuroscientific experiments and simulations.

Instructor(s): N. Hatsopoulos Terms Offered: Winter

Prerequisite(s): For Neuroscience Majors: NSCI 20110, NSCI 20130, BIOS 26210, and knowledge using Matlab, or consent of instructor.

Equivalent Course(s): BIOS 24232, NSCI 23600, PSYC 34410, CPNS 33200

ORGB 36400. Molecular Phylogenetics. 100 Units.

While evolution by natural selection is an elegantly simple phenomenon, modern research in evolutionary biology contains a variety of controversial, and sometimes confusing, topics. In this course, we will explore, as a group, a select list of controversial or confusing topics in evolutionary biology through a mix of student-led presentations and discussion of the primary literature. Each student will also write a review paper about his or her selected topic.

Instructor(s): J. Thornton, A. Drummond Terms Offered: Spring, offered in alternate (even) years

Note(s): not offered in 2018-19

Equivalent Course(s): ECEV 36400, HGEN 36400

ORGB 39500. Historical and Conceptual Foundations of DevoEvo. 100 Units.

The goal of this course is to explore the historical and conceptual foundations of Developmental Evolution (DevoEvo) through readings and group discussions of historical and philosophical literature on evolutionary and developmental biology, in particular the role developmental biology played in the formulation of evolutionary theory and it's subsequent banishment from the Modern Synthesis. The course begins with a review of nineteenth-century scientific and evolutionary thought, including an examination of competing theories of evolution (Theistic Evolutionism, Lamarckism, Orthogenesis, and Mutation Theory) and their contribution (or lack thereof) to modern evolutionary biology. We then explore how (and why) developmental biology was excluded from the formulation of the Synthesis and Neo-Darwinian thought, and examine the source of continued conflicts between Neo-Darwinism and DevoEvo. The course concludes with a discussion of what (if anything) DevoEvo can contribute to evolutionary theory that other research programs cannot (for example, what kinds of phenomena do developmental mechanisms contribute more to the explanation of evolutionary processes than population genetic mechanisms?).

Instructor(s): V. Lynch. Terms Offered: Winter

Prerequisite(s): For Biology Majors: Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235.

Equivalent Course(s): HGEN 39500, BIOS 21418

ORGB 40000. Intro to Integrative Organismal Biology. 100 Units.

A graduate seminar to introduce students to research of faculty in the Department of Organismal Biology and Anatomy. Prerequisite(s): Required for first and second year graduate students in Integrative Biology.

Instructor(s): M. Westneat Terms Offered: Autumn

Prerequisite(s): Required for first and second year graduate students in Integrative Biology.

ORGB 40001. Topics: Integrative Organismal Biology. 100 Units.

Instructor(s): U. Schmidt-Ott, S. Palmer Terms Offered: Winter

Prerequisite(s): Required for first and second year graduate students in Integrative Biology.

ORGB 40100. Anatomical Research. 100 Units.

Course description unavailable.

Terms Offered: Autumn

Note(s): Only open to first year graduate students in the Darwinian Sciences Cluster

ORGB 40101. Grants, Publications, and Professional Issues. 100 Units.

Covers professional topics in evolutionary biology, primarily strategies in grant writing and review. Each student will work towards the submission of an application of their choice. The course meets weekly and involves extensive writing and discussion.

Instructor(s): J. Bergelson, R. Ho, M. Coates Terms Offered: Autumn

Note(s): Open to first and second year graduate students in the Darwinian Sciences Cluster

Equivalent Course(s): ECEV 40100, EVOL 40100

ORGB 40200. Advanced Topics in Ethics for the Darwinian Sciences. 100 Units.

This course covers advanced topics in ethics relevant to senior Ph.D. students in the Darwinian Sciences. CEB students are required to successfully complete this course before being awarded the Ph.D.

Instructor(s): M. Coates, P. Herendeen Terms Offered: Winter

Prerequisite(s): Open to Ph.D. students in the Darwinian Sciences

Equivalent Course(s): EVOL 40200, ECEV 40200

ORGB 42600. Theoretical Neuroscience: Statistics and Information Theory. 100 Units.

This course begins with an introduction to inference and statistical methods in data analysis. We then cover the two main sections of the course: I) Encoding and II) Decoding in single neurons and neural populations. The encoding section will cover receptive field analysis (STA, STC and non-linear methods such as maximally informative dimensions) and will explore linear-nonlinear-Poisson models of neural encoding as well as generalized linear models alongside newer population coding models. The decoding section will cover basic methods for inferring stimuli or behaviors from spike train data, including both linear and correlational approaches to population decoding. The course will use examples from real data (where appropriate) in the problem sets which students will solve using MATLAB.

Prerequisite(s): Prior exposure to basic calculus and probability theory, CPNS 35500 or instructor consent.

Equivalent Course(s): STAT 42600, CPNS 35600

ORGB 49401. Approaches to Teaching in The Darwinian Sciences. 100 Units.

This course will introduce different teaching philosophies and methods that address how to be an effective teacher in the Darwinian Sciences. Specifically, the course will address what skills and knowledge undergraduates need to acquire and which assignments best teach these skills. Students will prepare course syllabi, discuss different approaches to teaching, and draft a philosophy of teaching statement. The overall goal for the course is that the students think critically about the art of teaching and formulate their own thoughts on the matter to better prepare them for their own careers in teaching.

Equivalent Course(s): EVOL 49401, ECEV 49401

ORGB 49500. Lab Teaching/Teaching: Organismal Biology/Anatomy. 100 Units.

For graduate students to build their teaching skills by assisting with the instruction of a course in a core area of Integrative Biology. Students should register for the section under the faculty member who is their teaching mentor for the quarter.

ORGB 49700. Rdgs: Organismal Biology/Anatomy. 300.00 Units.**ORGB 49800. Rsch: ORGB-Off Campus. 300.00 Units.**

For graduate students conducting dissertation research at an off-campus lab or field location. Students should register for the section under their adviser only when using pro forma status for the quarter.

ORGB 49900. Rsch: ORGB-On Campus. 300.00 Units.

For graduate students conducting dissertation research wholly or partly on campus for the quarter. Students should register for the section under their adviser and time spent should directly advance their dissertation in Integrative Biology.

ORGB 57500. Cell Growth, Injury, Repair and Death. 100 Units.

This course reviews the various modes of cell injury that can occur, the basic molecular healing responses, and pathways of metabolic survival or death. This course may be of interest to those interested in wound healing, biological stress responses, molecular chaperones, radiobiology, biomechanics, biomedical engineering, as well as trauma and critical care medicine.

Instructor(s): R. Lee Terms Offered: Autumn

Equivalent Course(s): MOLM 57500, MPMM 57500

ORGB 70000. Advanced Study: Organismal Biology & Anatomy. 300.00 Units.

Advanced Study: Organismal Biology & Anatomy



THE INTERDISCIPLINARY SCIENTIST TRAINING PROGRAM

The Interdisciplinary Scientist Training Program (ISTP) is the graduate program of the University of Chicago's Medical Scientist Training Program (MSTP). The goal of the ISTP is to train the next generation of physician-scientist leaders. Graduates of the MSTP are awarded a MD from the Pritzker School of Medicine (<https://pritzker-sites.uchicago.edu>) and a PhD from the graduate studies arm of the MSTP, the Interdisciplinary Scientist Training Program (ISTP) (<https://pritzker-sites.uchicago.edu/page/interdisciplinary-scientist-training-program>).

MSTP students take graduate courses and perform their PhD thesis work under the umbrella of the ISTP. This novel, highly adaptable program allows students full access to the superb graduate programs within the Division of the Biological Sciences (<http://biosciences.uchicago.edu>), the Division of the Physical Sciences (<https://physical-sciences.uchicago.edu>), and the Division of the Social Sciences (<https://socialsciences.uchicago.edu>). The ISTP allows students to pursue training in one field or to craft a unique course of study that integrates two classical disciplines. Examples of the latter include computational biology and human genetics, structural biology and immunology, or developmental biology and microbiology. Such integrations reflect the evolution of biomedical research in which several disciplines are brought to bear on important questions in human disease.

The first year of the program combines medical and graduate school classes. Students then typically begin their PhD thesis research work and return to the second year of medical school after a successful defense. This structure ensures a focused, intensive research experience and preserves the continuity of clinical training. On average, MSTP trainees complete both degrees in eight years.

PROGRAM OF STUDY

The goal of the Interdisciplinary Scientist Training Program is to train the next generation of physician-scientist leaders. Our program is designed to provide all ISTP students with rigorous scientific training that prepares them to excel in their field of interest, while providing the flexibility to forge new connections between traditional scientific areas.

CURRICULUM

Five weeks prior to the Pritzker start date, incoming students begin an MSTP-only anatomy course, and finish the course with their medical school colleagues in August. During the Autumn, Winter, and Spring Quarters, students take graduate school courses in addition to their medical school courses. Typically, a total of 3-5 graduate school courses will be finished by the end of the first year. Members of the ISTP Curriculum Committee will meet individually with each student every quarter before registration for the coming quarter. During this meeting the committee will work with the student to determine which courses will best ensure that the student is adequately prepared to embark on their graduate work when they join a lab.

Each ISTP student completes two lab rotations during the summer between their first and second year. These rotations allow students to identify their future PhD mentors in their area of interest.

All first year ISTP students participate in the Topics Journal Club course. This course provides an in-depth primary-literature based examination of basic science courses taken as part of the Pritzker Initiative Curriculum, and allows students to develop an appreciation for the primary literature, learn to critically evaluate articles, learn more about experimental design, learn how to evaluate and present an overview of a field, and become proficient in overall presentation skills.

SPECIALIZATIONS

ISTP requires students to choose an area of "specialization." Specializations, in general, consist of 5 courses: 3-4 that are programmatic, and 1-2 that are elective/basic advanced knowledge courses. However, some specializations require more coursework due to the nature of the research area. All courses will be graduate courses offered by an established PhD program. In addition to the coursework, specializations require that the student participate in programmatic activities such as research-in-progress, journal club, retreats (if available), seminar series, etc. All students must present their research yearly in a program-approved venue.

SELF-DESIGNED SPECIALIZATIONS

Students who choose not to align with a prescribed specialization, can design their own program with the approval of the ISTP Curriculum Committee. The self-designed program will include at least 5 graduate-level courses. In addition to the coursework, self-designed specializations must include a plan to participate in programmatic activities of an established graduate program such as research-in-progress, journal club, retreats (if available), seminar series, etc. These students will also meet with and be advised by the ISTP Curriculum Committee to ensure that they make suitable course choices each quarter until a Thesis Committee takes over this role.

BREAKING FROM MEDICAL SCHOOL TO COMPLETE GRADUATE RESEARCH

At the University of Chicago, ISTP students have the flexibility to choose to break from medical school to pursue their graduate research either after the first year of medical school or after Spring Quarter of their second year of medical school. Most students take 3 to 4 years to complete their PhD research and will successfully defend their thesis prior to returning to medical school.

ADMISSION

Admission to the ISTP is exclusively through the joint application process with the Pritzker School of Medicine via the American Medical College Application Service (AMCAS). Applicants cannot apply through the UChicago BSD graduate application process.

MORE INFORMATION

Further information can be found at the MSTP program's web site: <https://pritzker.uchicago.edu/mstp>

INTERDISCIPLINARY SCIENTIST TRAINING COURSES

ISTP 30420. Variable Topic Journal Club: Cell & Developmental Biology. 25 Units.

This course provides an in-depth primary-literature based examination of basic science courses taken as part of the Pritzker Initiative and allows students to develop an appreciation for the primary literature, learn to critically evaluate articles, learn more about experimental design, learn how to evaluate and present an overview of a field, and become proficient in overall presentation skills. The topic for this during the 17-18 academic year is Cell & Developmental Biology.

Instructor(s): M. McNerney, E.Heckscher and R. Carrillo Terms Offered: Autumn

ISTP 30440. Variable Topic Journal Club: Physiology. 25 Units.

This course provides an in-depth primary-literature based examination of basic science courses taken as part of the Pritzker Initiative and allows students to develop an appreciation for the primary literature, learn to critically evaluate articles, learn more about experimental design, learn how to evaluate and present an overview of a field, and become proficient in overall presentation skills. The topic for this course during the 19-20 academic year is physiology.

Instructor(s): C. Weber, j. Cheng and L. Shen Terms Offered: Winter

ISTP 30441. Variable Topic Journal Club: Grant Writing. 50 Units.

The purpose of this class will be to provide participants with skills necessary for writing successful grant proposals. The class will emphasize how to craft hypotheses that are based on current published research and to develop rigorous experimental approaches to test these hypotheses. Special emphasis will be placed on developing an outstanding specific aims page that frames a hypothesis within the current literature, justifies the importance of the question and then proposes an integrated experimental plan that tests the central hypothesis.

Instructor(s): M. Clark Terms Offered: Spring

ISTP 30460. Variable Topic Journal Club: Statistics. 25 Units.

A thorough understanding of statistics is essential for both experimental design and data analysis. Too often, time and resources are wasted due to a poor understanding of sample size and power calculations, and the reliability of scientific reports has repeatedly been scrutinized in recent years due to questionable, if not fraudulent, application of statistical tests. As a requirement for entry into Pritzker, all MSTP students must have taken a statistics or biomathematics course in college. Building off of a basic, college-level understanding of statistics, this new journal-club style course aims to incorporate in-depth, field-specific workshops that will allow students to tailor their statistical toolbox to their particular research interests and goals.

Instructor(s): K. McCann Terms Offered: Summer

ISTP 40000. ISTP Thesis Research. 300.00 Units.

Independent research on variable topics in preparation for completing the dissertation.

Instructor(s): K. McCann Terms Offered: Autumn Spring Summer Winter

ISTP 42000. Topics in Data Analysis in Biomedical Research: Big Data. 75 Units.

Equivalent Course(s): MEDC 42000



COMMITTEE ON MEDICAL PHYSICS

Chair

Samuel G. Armato III

Associate Chair

Hania A. Al-Hallaq

Professors

- Timothy Carroll, Radiology
- Maryellen L. Giger, Radiology
- David J. Grdina, Radiation & Cellular Oncology
- Howard J. Halpern, Radiation & Cellular Oncology
- Gregory S. Karczmar, Radiology
- Xiaochuan Pan, Radiology

Associate Professors

- Hania A. Al-Hallaq, Radiation & Cellular Oncology
- Samuel G. Armato III, Radiology
- Bulent Aydogan, Radiation & Cellular Oncology
- Chin-Tu Chen, Radiology
- Yulei Jiang, Radiology
- Chien-Min Kao, Radiology
- Ingrid Reiser, Radiology
- Patrick La Riviere, Radiology
- Zheng Feng Lu, Radiology
- Bill O'Brien-Penney, Radiology
- Steffen Sammet, Radiology
- Kamil M. Yenice, Radiation & Cellular Oncology

Assistant Professors

- Kenneth B. Bader, Radiology
- Rodney D. Wiersma, Radiation & Cellular Oncology

Emeritus Professors

- Kunio Doi, Radiology
- David N. Levin, Radiology
- Chester S. Reft, Radiation & Cellular Oncology

The Committee on Medical Physics includes the graduate program in medical physics, which is recognized internationally for its research excellence. Faculty with primary interest in diagnostic imaging hold appointments in the Department of Radiology, and faculty with primary interest in the physics of radiation therapy hold appointments in the Department of Radiation & Cellular Oncology. Many of the faculty are leaders in their respective specialties. Because the departments are located in the University of Chicago Medical Center, there is strong interaction among the clinical and research faculty and staff. The Committee on Medical Physics program leads to the Ph.D. degree in medical physics. Although most students are admitted directly for study toward the Ph.D. degree, the S.M. degree may occasionally be awarded as a terminal degree. Normally five or six years of residency are required for the Ph.D. degree.

Please visit our website <http://medicalphysics.uchicago.edu/> for more information.

Inquiries concerning the graduate program should be addressed to Sam Armato, Ph.D., Chair of the Committee on Medical Physics, Director of the Graduate Program in Medical Physics, Department of Radiology, MC 2026, 5841 South Maryland Avenue, Chicago, IL 60637, or e-mail: s-armato@uchicago.edu

In addition to the Graduate Program in Medical Physics, the Committee on Medical Physics has combined with the University of Chicago's Graham School to offer a postgraduate certificate in medical physics. This certificate program provides the necessary training for physicists who are interested in moving to medical physics with the knowledge that they will need in their future profession. Applicants must hold a Ph.D. in physics.

Inquiries concerning the Certificate Program should be addressed to Hania Al-Hallaq, Ph.D., Director of the Medical Physics Certificate Program, at:

hal-hallaq@radonc.bsd.uchicago.edu

Medical physics researchers at the university have available to them a variety of state-of-the-art equipment:

- 1.5T MR scanners
- 3T MR scanner
- 9.4T MRI/MRS system
- Electron paramagnetic resonance imaging spectrometers
- 16-, 32-, and 64-slice helical CT scanners
- Advanced 256-slice helical cone-beam CT scanner
- Advanced 256-slice dual-energy helical cone-beam CT scanner
- Dual-energy chest radiography system
- Full-field digital mammography systems
- PET/CT scanner
- 30% sensitivity dual-head small animal PET scanner
- Computer controlled dual-energy linear accelerators with multileaf collimators, dynamic treatment capability, and solid-state megavoltage imagers and kilovoltage 2D and cone-beam imaging capabilities
- Computer controlled high-dose-rate remote after loading brachytherapy system
- Virtual reality display system
- Computed radiography systems
- 7 dual-head SPECT systems
- Real-time quantitative PCR machine
- Zeiss surgical microscope
- Harvard small animal ventilator
- Micro-interventricular pressure and volume catheters
- MRI-compatible fiber optic pressure transducer
- Physiologic data acquisition and analysis system
- Class II cell culture hood
- Zeiss fluorescence microscope with associated CCD camera and image acquisition and analysis computer system
- Microplate reader
- Sorvall RC-6 high-speed ultracentrifuge
- Bio-rad gel documentation and analysis workstation
- Harshaw automated thermoluminescent reader
- Philips 250 kVp orthovoltage machine
- Diagnostic and mammography x-ray systems
- Dual-head SPECT systems
- Xenogen IVIS 200 for bioluminescence and fluorescence animal imaging
- VisEn FMT for fluorescence molecular tomography in animal imaging
- Olympus OV-100 for fluorescence animal imaging
- GM/GE Triumph Flex microPET/SPECT/CT pre-clinical imaging system
- Vevo 770 ultrasound imaging system for animal imaging
- Super-resolution single-photon emission microscope (SPEM)
- High-resolution digital x-ray imaging system
- Computer-aided detection system for mammography
- High-resolution display monitors and workstations
- General use and specialized image processing and display computers linked via a high-speed network

MEDICAL PHYSICS COURSES

MPHY 30000. Medical Physics Clinical Observation. 50 Units.

The scope of this course is to expose students to the day-to-day work of clinical medical physicists. Students are offered observation in the clinic of a variety of tasks that medical physicists perform, such as equipment quality control testing. A range of observation topics in diagnostic, therapy and nuclear medical physics are offered. Participation in five observations is required to receive course credit. This is a special topics course and students are expected to prepare themselves for each observation. Enrollment in this course is by instructor permission only. Prerequisite: Completion of HIPAA training (online CITI course)

MPHY 32000. Overview of the Physics of Medical Imaging. 100 Units.

This course is for students in the medical physics certificate program. The course presents a comprehensive overview of physics in medical imaging, covering a wide range of clinical imaging modalities including radiography, fluoroscopy, computed tomography (CT), mammography, ultrasound, magnetic resonance imaging (MRI) and nuclear medicine imaging. The course will introduce the student to the fundamental principles of clinical radiological imaging as well as cutting-edge diagnostic imaging technology.

Instructor(s): Z.F Lu, B. O'Brien-Penney, I. Reiser and S. Sammet Terms Offered: Spring

MPHY 34100. Bioethics for Medical Physicists. 50 Units.

This course explores ethical issues that arise in the practice of medical physics in research, education and clinical settings. Topics include misconduct (fabrication, falsification and plagiarism) and questionable conduct in scientific research; authorship and publication practices; human subject research (informed consent and IRB review, patient/subject privacy and confidentiality; quality improvement vs research; vulnerable subjects); history of human radiation experiments and medical physics; research with animals; incidental findings in radiation therapy and imaging research; conflicts of interest; mentorship; professionalism and the AAPM code of ethics; ethics of innovative technologies (charged particle therapy); off-label uses of radiation; radiation errors and patient safety; and the ethics of radiation protection, optimization and justification of medical radiation exposure in therapy and imaging. The course aims to increase students' awareness of ethical issues they might face as medical physicists and to help them, through case discussions, better recognize, analyze and resolve ethical issues, conflicts and dilemmas.

Instructor(s): N. Ozturk Terms Offered: Spring

MPHY 34200. Practicum in the Physics of Medical Imaging I. 100 Units.

This laboratory course is designed for students to enhance the understanding of materials covered in the Physics of Medical Imaging I (MPHY 38600) and to acquire hands-on experience on related subjects. These subjects include diagnostic x-ray sources and imaging systems, MRI, and the applications of computer-aided diagnosis.

Instructor(s): S. Sammet, M. Giger, Y. Jiang, P. La Rivière, Z.F. Lu Terms Offered: Spring

MPHY 34300. Practicum in the Physics of Medical Imaging II. 100 Units.

This laboratory course is designed to familiarize the medical physics student with certain equipment and procedures in diagnostic radiology, with emphasis on nuclear medicine (both PET and SPECT), ultrasound, and x-ray (helical) computed tomographic (CT) imaging. The students will conduct routine quality control procedures and educational exercises. Data analysis will be conducted using clinical software and freeware that will process DICOM images.

Instructor(s): B. O'Brien-Penney, Z.F. Lu Terms Offered: Summer

MPHY 34400. Practicum in the Physics of Radiation Therapy. 100 Units.

This course combines lectures and intensive hands-on experiments. It includes an introduction to thermoluminescent detectors, film and ionization chamber dosimetry, and quality assurance for intensity modulated radiation therapy (IMRT). Training in data acquisition, error analysis, experimental techniques and the safe handling of sealed radiation sources is also included. The basic concepts of Monte Carlo calculations will be presented and measurements made in simple slab phantoms to compare with (MC) calculations.

Instructor(s): H. Al-Hallaq, B. Aydogan Terms Offered: Winter

MPHY 34500. Nuclear Instrumentation and Methods for Molecular Imaging. 100 Units.

MPHY 34900. Mathematics for Medical Physics. 100 Units.

This course focuses on the mathematics that will be used throughout the training of students in the Graduate Program in Medical Physics. Lectures are given on linear algebra, Fourier analysis, sampling theory, functions of random variables, stochastic processes, estimation theory, signal detection theory, and ROC analysis.

Instructor(s): X. Pan, M. Giger, P. La Rivière Terms Offered: Autumn

MPHY 35000. Interactions of Ionizing Radiation with Matter. 100 Units.

Ionizing radiation is the basis for radiation therapy and for many diagnostic imaging studies. This course explores the fundamental modes of interaction between ionizing radiation (both electromagnetic and particulate) and matter, with an emphasis on the physics of energy absorption in medical applications. Topics will include exponential attenuation, x-ray production, charged particle equilibrium, cavity theory, dosimetry, and ionization chambers.

Instructor(s): S. Armato, H. Al-Hallaq Terms Offered: Autumn

MPHY 35100. Physics of Radiation Therapy. 100 Units.

This course covers aspects of radiation physics necessary for understanding modern radiation therapy. Rigorous theoretical foundations of physical dose calculation for megavoltage-energy photons and electrons, biological predictions of therapy outcomes, and brachytherapy are presented. Methods of modeling and implementing radiation therapy treatment planning, evaluation, and delivery are described. Emphasis is placed on current developments in the field including intensity modulated radiation therapy. The course is intended to provide comprehensive knowledge of radiation therapy physics, enabling the student to grasp current research in the field.

Instructor(s): K. Yenice, N. Ozturk, R. Wiersma Terms Offered: Winter

MPHY 35601. Anatomical Structure and Physiological Function of the Human Body. 100 Units.

Study and primer of the basic anatomy of the human body, as demonstrated from diagnostic radiographic imaging. Physiological processes of body systems will be examined with an emphasis on its relationship with imaging. Emphasis is placed on critical landmark structures involved in body, limb and nervous system imaging, allowing for effective clinically oriented research.

Instructor(s): C. Straus, B. Roman Terms Offered: Autumn

MPHY 35900. Cancer And Radiation Biology. 100 Units.

This course provides students with an overview of the biology of cancer and of the current methods used to diagnose and treat the disease. Lectures from faculty throughout the Biological Sciences Division will include presentations on cancer incidence and mortality, cancer prevention, a molecular biology perspective, the role of genetic markers, methods of treatment (radiation, chemotherapy) and prognosis. The course will be primarily for medical physics graduate students.

Instructor(s): D. Grdina Terms Offered: Winter

MPHY 37400. Charles E. Metz Special Topics. 100 Units.

The Charles E. Metz Special Topics Course will focus on a faculty/student selected topic in medical physics, which will enhance and extend the education process. A visiting faculty member will spend approximately a week at the University delivering lectures/seminars and interacting with faculty, students, and staff. Each course offering will also include a specific Committee on Medical Physics faculty member who will hold pre- and post-seminar lectures.

Instructor(s): M. Giger, P. La Rivière Terms Offered: Spring (every other year)

MPHY 38600. Physics of Medical Imaging-1. 100 Units.

This is an introductory course to the basic elements of x-ray imaging, electron paramagnetic resonance (EPR) imaging, and magnetic resonance imaging (MRI) and spectroscopy (MRS). X-ray imaging topics include x-ray spectra, image formation, analog and digital detectors, physical measures of image quality, fluoroscopy, digital subtraction angiography, dual-energy imaging and image restoration. Magnetic resonance imaging topics include nuclear magnetic resonance, relaxation times, pulse sequences, functional imaging and spectroscopy.

Instructor(s): Y. Jiang, H. Halpern, P. La Rivière, B. Roman Terms Offered: Spring

MPHY 38700. Physics of Medical Imaging II. 100-300 Units.

This course covers the physics, mathematics and statistics in nuclear medicine, x-ray computed tomography, ultrasound imaging, and optical imaging. Specific topics include: radioactive isotopes and tracer methodology; physics, instrumentation, and performance properties of gamma camera; quality control in nuclear medicine; SPECT imaging; physics, instrumentation and performance properties of PET imaging; biokinetics and compartmental analysis; physics, reconstruction, performance properties for CT imaging and tomosynthesis; principles and instrumentation of ultrasound imaging; and optical imaging.

Instructor(s): C.-M. Kao, P. La Rivière, B. O'Brien-Penney, E. Sidky Terms Offered: Summer

MPHY 39200. Diagnostic Clinical Physics. 300.00 Units.

This course provides an understanding of the physical principles and theories involved in diagnostic imaging modalities. It will acquaint the student with the daily work of a clinical medical physicist in a Radiology department. This course will introduce concepts of quality control and will enable students to perform quality control scans on different imaging modalities.

Instructor(s): B. O'Brien-Penney, Z.F. Lu, S. Sammet Terms Offered: Autumn

MPHY 39300. Physics in Clinical PET. 300.00 Units.

Instructor(s): B. O'Brien-Penney Terms Offered: Autumn

MPHY 39500. Special Topics Course at the MBL: Image Acquisition/Analysis. 100 Units.

Students will register for this "course" when they are enrolled in an Advanced Research Training Course (on a topic related to image acquisition or image analysis) at the Marine Biological Laboratory in Woods Hole, MA. See <http://www.mbl.edu/education/courses/> for course offerings.

MPHY 39600. Image Processing/Computer Vision. 100 Units.

Equivalent Course(s): CMSC 35600

MPHY 39700. Health Physics. 100 Units.

This course provides an introduction to fundamental principles of health physics and radiation protection in medical physics environments. A broad spectrum of topics is covered, including radiation detection and measurement, instrumentation, counting statistics, radiation protection criteria, exposure limits and regulations, shielding techniques, monitoring of personnel dose and radiation safety.

Instructor(s): B. Aydogan, N. Ozturk Terms Offered: Spring

MPHY 39901. Directed Reading in Ultrasonic Imaging Physics. 100 Units.

This course, which will be offered in accordance with student interest and faculty availability, involves directed reading of texts related to ultrasonic physics and engineering, such as R.S.C. Cobbold's "Foundations of Biomedical Ultrasound."

Instructor(s): P. La Rivière Terms Offered: All Quarters

MPHY 41600. Pre-Candidacy Research in Medical Physics. 100-300 Units.

Research topics span various areas of medical physics and can include those from diagnostic imaging to radiation therapy treatment methods, as well as cross-disciplinary projects. Students in the Graduate Program in Medical Physics will enroll in this course (after selecting a lab for their thesis research) each quarter until the successful passage of the thesis proposal.

Instructor(s): S. Armato, and staff Terms Offered: All Quarters

MPHY 41700. Dissertation Research in Medical Physics. 100-300 Units.

Research topics span various areas of medical physics and can include those from diagnostic imaging to radiation therapy treatment methods, as well as cross-disciplinary projects. Students in the Graduate Program in Medical Physics will enroll in this course every quarter after the successful passage of the thesis proposal.

Instructor(s): S. Armato, and Staff Terms Offered: All Quarters

MPHY 41800. Research in Advanced Tomographic Imaging. 100-300 Units.

Possible research topics include investigation, development, and evaluation of algorithms for advanced tomographic imaging with emphases on the fundamental physics, mathematics, and statistics of advanced tomographic imaging; cone-beam computed tomography (CT); tomosynthesis; phase-contrast CT; magnetic resonance imaging (MRI); electron paramagnetic resonance imaging (EPRI); positron emission tomography (PET); single-photon emission computed tomography (SPECT); and emerging tomographic imaging techniques.

Instructor(s): X. Pan and Staff Terms Offered: All Quarters

MPHY 41900. Research in Computer Aided Diagnosis. 100-300 Units.

Research topics include the application of advanced image processing techniques and computer vision approaches to the development of methods for the detection of abnormalities in medical images (e.g., mammograms, chest radiographs, computed tomography (CT) scans, and magnetic resonance imaging (MRI)); the development of methods to classify abnormalities as benign or malignant; the investigation of enhanced visualization techniques such as temporal subtraction imaging; the segmentation of anatomic or pathologic structures of interest; and the assessment of tumor response.

Instructor(s): S. Armato and Staff Terms Offered: All Quarters

MPHY 42000. Research in the Physics of Nuclear Medicine. 100-300 Units.

Possible research topics include the fundamental physical aspects of nuclear medicine, including radiation detection and spectrum analysis; image formation, processing, and display; criteria for image evaluation; and quantitative in vivo assay using methods of gamma ray and positron tomography, stimulated x-ray fluorescence, and activation analysis.

Instructor(s): X. Pan and Staff Terms Offered: All Quarters

MPHY 42100. Research in the Physics of Diagnostic Radiology. 100-300 Units.

Possible research topics include the development of methods to improve diagnostic accuracy and/or to reduce patient radiation exposure; quantitative image analysis and computer-aided diagnosis, methods of tomographic reconstruction, analysis and evaluation of imaging system components; and joint physical/clinical studies of new techniques in diagnostic medical physics.

Instructor(s): M. Giger and Staff Terms Offered: All Quarters

MPHY 42200. Research in the Physics of Radiation Therapy. 100-300 Units.

Possible research topics include radiation treatment planning; radiation dose calculations; intensity-modulated radiotherapy; image-guided radiotherapy; biological basis of radiation therapy; and analysis of treatment outcomes.

Instructor(s): C. Pelizzari and Staff Terms Offered: All Quarters

MPHY 42300. Research in the Physics of MRI. 100-300 Units.

Possible research topics include fundamental aspects of magnetic resonance imaging (MRI) and magnetic resonance spectroscopy (MRS) including the development and optimization of methods to non-invasively characterize the structure and function of tissue in vivo. The developments range from novel MRI/MRS pulse sequences to image reconstruction to data processing methods, multi-modal imaging approaches, and modeling of contrast mechanisms. Other research topics are the development and application of quantitative MRI/MRS methods for image-guided interventions and the analysis of treatment outcomes.

Instructor(s): G. Karczmar, S. Sammet and Staff Terms Offered: All Quarters

MPHY 42400. Research in Image-Guided Radiation Therapy. 100-300 Units.

Possible research topics include fundamental aspects of image guidance in radiation therapy planning and delivery, management of inter-treatment and intra-treatment patient motion, use of respiratory correlated CT, cone beam CT, kV/MV real-time imaging, and dynamic patient modeling for treatment planning.
Instructor(s): C. Pelizzari and Staff Terms Offered: All Quarters

MPHY 42500. Research in Quantitative Image Analysis. 100-300 Units.

Possible research topics include fundamental and developmental aspects of computer vision and artificial intelligence on biomedical image data to yield image-based phenotypes for Computer-aided diagnosis (CAD) and other decision support methods in medical imaging. Additional developments include aspects of data mining, dimension reduction, classifier training, metrics of validation, human-computer interface, and imaging genomics.

Instructor(s): M. Giger, S. Armato and Staff Terms Offered: All Quarters

MPHY 42600. Research in Computer-aided Diagnosis/Radiomics. 100-300 Units.

Possible research topics include development and application of image processing and computer vision techniques for the detection, diagnosis, and response assessment of disease in medical images, the image-based evaluation of normal tissue complications that result from therapy, the quantification of imaging signatures (imaging biomarkers) that correlate with disease phenotypes or patient genetic profiles, the integration of multi-modality imaging for enhanced decision support, and the application of deep learning for computer-aided diagnosis challenges.

MPHY 42700. Research in Molecular Imaging. 100-300 Units.**MPHY 70000. Advanced Study: Medical Physics. 300.00 Units.**

Advanced Study: Medical Physics



COMMITTEE ON MICROBIOLOGY

Chair

- Michaela Gack, Microbiology

Professors

- Joy Bergelson, Ecology & Evolution
- Eugene B. Chang, Medicine
- Alexander Chervonsky, Pathology
- Michaela Gack, Microbiology
- Tatyana Golovkina, Microbiology
- Jean Greenberg, Molecular Genetics & Cell Biology
- Joseph Kanabrocki, Microbiology
- Dominique Missiakas, Microbiology
- Tao Pan, Biochemistry & Molecular Biology
- Phoebe Rice, Biochemistry & Molecular Biology
- Raymond Roos, Neurology
- Lucia Rothman-Denes, Molecular Genetics & Cell Biology
- Olaf Schneewind, Microbiology
- Howard Shuman, Microbiology
- Wei Jen Tang, Ben May Department for Cancer Research
- Aaron Turkewitz, Molecular Genetics & Cell Biology

Associate Professors

- Sarah Cobey, Ecology & Evolution
- Glenn Randall, Microbiology
- Michael Rust, Molecular Genetics & Cell Biology

Assistant Professors

- Maureen Coleman, Geophysical Sciences
- A. Murat Eren, Medicine
- Seungmin Hwang, Pathology
- Jacob Waldbauer, Geophysical Sciences

Emeritus Faculty

- Robert Haselkorn, Molecular Genetics & Cell Biology
- Bernard Roizman, Microbiology

The primary purpose of the Committee on Microbiology is to produce research scientists and teachers in microbiology by offering formal instructions; by fostering informal dissemination of information among the faculty, fellows and students engaged in research in microbiology; and by administering a program of study leading to the degree of Doctor of Philosophy. Through its faculty, activities and educational program, the Committee on Microbiology integrates studies in various clinical and non-clinical departments of the Biological Sciences Division. The Committee on Microbiology maintains maximum flexibility in its program to cater to students' developing interests. Students with backgrounds in any appropriate field (physics, chemistry, biology, biochemistry, and medicine) may commence work in microbiology upon entering the graduate program of the Biological Sciences Division. The Committee on Microbiology sponsors a seminar series, which brings to campus prominent microbiologists from all over the world to discuss their research and meet with microbiology faculty and students. Another regular activity sponsored by the committee is the Microbiology Research Forum. Research Forums feature a current graduate student, postdoctoral fellow or other training fellow in microbiology presenting his/her research data. Microbiology Research Forums are open to the university community, offering an informal forum for the discussion of microbiology within the Chicago scientific community.

The Committee on Microbiology is a member of the Biomedical Sciences Cluster, which also houses graduate programs of the Committee on Cancer Biology, the Committee on Immunology, and the Committee on Molecular Metabolism and Nutrition. The four academic units share a joint admissions committee, several courses, a seminar series and other events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study. The Ph.D. degree is administered by the Committee on Microbiology and is recommended when the student has fulfilled the requirements stipulated in his or her

individual program; has met the divisional requirements for the degree; and, in the opinion of the committee, has attained competence in research in his or her field of specialization.

MICROBIOLOGY COURSES

MICR 30600. Fundamentals of Bacterial Physiology. 100 Units.

This course meets one of the requirements of the microbiology specialization. This course introduces bacterial diversity, physiology, ultra-structure, envelope assembly, metabolism, and genetics. In the discussion section, students review recent original experimental work in the field of bacterial physiology.

Instructor(s): D. Missiakas Terms Offered: Autumn

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence, or consent of instructor

Equivalent Course(s): BIOS 25206

MICR 31200. Host Pathogen Interactions. 100 Units.

This course explores the basic principles of host defense against pathogens, including evolutionary aspects of innate and adaptive immunity and immune evasion strategies. Specific examples of viral and bacterial interactions with their hosts are studied in depth. A review of immunological mechanisms involved in specific cases is incorporated in the course.

Instructor(s): A. Chervonsky Terms Offered: Autumn

Prerequisite(s): BIOS 25206 and BIOS 25256

Equivalent Course(s): BIOS 25260, IMMU 31200

MICR 31600. Molecular Basis of Bacterial Disease. 100 Units.

This course meets one of the requirements of the microbiology specialization. This lecture/discussion course involves a comprehensive analysis of bacterial pathogens, the diseases that they cause, and the molecular mechanisms involved during pathogenesis. Students discuss recent original experimental work in the field of bacterial pathogenesis.

Instructor(s): H. Shuman Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence.

Equivalent Course(s): BIOS 25216

MICR 33000. Bacteria/Bacteriophage Genetics and Cell Biology. 100 Units.

This graduate-level course is focused on providing students with a) an understanding of the foundational principles of bacterial genetics, and methods of genetic analysis, and b) how expression of genetic material is regulated in bacteria and phage, and c) mechanisms that govern the construction, development, and division of bacterial cells and multicellular communities.

Instructor(s): S. Crosson, H. Shuman, L. Rothman-Denes Terms Offered: Spring

MICR 34600. Introduction to Virology. 100 Units.

This class on animal viruses considers the major families of the viral kingdom with an emphasis on the molecular aspects of genome expression and virus-host interactions. Our goal is to provide students with solid appreciation of basic knowledge, as well as instruction on the frontiers of virus research.

Instructor(s): M. Gack Terms Offered: Spring

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence and third- or fourth-year standing

Equivalent Course(s): BIOS 25287

MICR 35900. Medical Microbiology. 100 Units.

Provides an overview of the clinically important microorganisms and their role in the causation of human infectious disease. The objectives of the course are to discuss mechanisms of microbial pathogenesis and host manifestations of disease, provide knowledge of the common organisms associated with specific infectious disease presentations as foundation for a system (organ)-based approach to diagnosis, and to describe the role of the clinical diagnostic laboratory in identification of pathogens and disease management. Lectures are held three days a week in 50-minute periods. Additionally, students attend weekly laboratory sessions during the quarter and participate in student-led case-based discussion groups with a faculty preceptor on a weekly basis. Two multiple-choice exams are administered, as well as a final laboratory practical exam and several laboratory quizzes.

Instructor(s): J. Benoit, G. Randall Terms Offered: Spring

Prerequisite(s): Second year medical students only or consent of instructor

MICR 39200. Tutorial: Microbiology. 100 Units.

Additional readings in an area of Microbiology. Must be prearranged with a faculty member and preapproved by the chair of the Curriculum Committee.

Instructor(s): M. Gack Terms Offered: Autumn Spring Summer Winter

MICR 39900. Readings: Microbiology. 100 Units.

Reading course in an area of Microbiology of special interest to the student. Must be prearranged with a faculty member and preapproved by the chair of the Curriculum Committee.

Instructor(s): M. Gack Terms Offered: Autumn Spring Summer Winter

MICR 40000. Microbiology Research Forum. 100 Units.

All graduate students and honors undergraduate students of the Committee on Microbiology will present their research in a central forum, the data club, once each year. Students and postdoctoral fellows present their recent research data for critical evaluation by the faculty of the Committee on Microbiology. This course provides a forum to ensure continued progress of graduate students in their thesis projects. First year graduate students are required to register for the course.

Instructor(s): M. Gack Terms Offered: Autumn Spring Winter

MICR 47000. Thesis Research: Microbiology. 300.00 Units.

Laboratory research for senior graduate students.

Instructor(s): M. Gack Terms Offered: Autumn Spring Summer Winter

MICR 47100. Non-Thesis Rsch: Microbiology. 300.00 Units.

Non-Thesis Research refers to laboratory rotations. The purpose of laboratory rotations is to expose the student to different research environments, to broaden his or her acquaintance with useful laboratory techniques, and to introduce him or her to the conceptual framework of experimental design. Students undertake short, ten-week research projects in at least two different laboratories before beginning their dissertation research.

Instructor(s): M. Gack



COMMITTEE ON MOLECULAR METABOLISM AND NUTRITION

Chair

- Matthew Brady

Professors

- Maria-Luisa Alegre, Medicine
- George Bakris, Medicine
- Graeme Bell, Medicine
- Deborah Burnet, Medicine
- Eugene Chang, Medicine
- Alexander Chervonsky, Pathology
- Anita Chong, Surgery
- Suzanne Conzen, Medicine
- Anna Di Rienzo, Human Genetics
- David Ehrmann, Medicine
- Murray Favus, Medicine
- Godfrey Getz, Pathology (Emeritus)
- Bana Jabri, Medicine
- James Liao, Medicine
- J. Michael Millis, Surgery
- Deborah Nelson, Pharmacological and Physiological Sciences
- Louis Philipson, Medicine
- Victoria Prince, Organismal Biology and Anatomy
- Eve Van Cauter, Medicine
- Yingming Zhao, Ben May Department for Cancer Research
- Xiaoxi Zhuang, Department of Neurobiology

Associate Professors

- Marc Bissonnette, Medicine
- Matthew Brady, Medicine
- Ronald Cohen, Medicine
- Yan Chun Li, Medicine
- Kay Macleod, Ben May Department for Cancer Research
- Jeremy Marks, Pediatrics
- Silvana Pannain, Medicine
- Vivek Prachand, Surgery
- Carol Semrad, Medicine

Assistant Professors

- Lev Becker, Ben May Department for Cancer Research
- Eunice Chen, Psychiatry & Behavioral Neuroscience
- Dianne Deplewski, Pediatrics
- Alexandra Dumitrescu, Medicine
- Yun Fang, Medicine
- Helen Kim, Obstetrics and Gynecology
- Brian Roman, Radiology
- Esra Tasali, Medicine

Research Associate (Professor)

- Catherine Reardon Alulis, Pathology

Research Associate (Assistant Professor)

- Mark Musch, Medicine

The Committee on Molecular Metabolism and Nutrition is a dynamic and interactive research unit of the University of Chicago offering interdisciplinary doctoral training in the molecular basis of biological processes as they relate to nutrition and human disease. The graduate program in molecular metabolism and nutrition offers a program of study leading to the Doctor of Philosophy in Molecular Metabolism and Nutrition. Faculty expertise includes the areas of insulin secretion, diabetes genetics, nutritional regulation of epithelial cell biology, intestinal absorption, adaptation, and malabsorption, water/nutrient/electrolyte transport, nutraceuticals, atherogenesis, abnormalities in lipid and lipoprotein metabolism, vitamin D research, insulin metabolic signaling, transcription factors and adipogenesis, impact of nutrition on reproductive biology, glucocorticoid action and sleep research. A mixture of nationally recognized senior faculty and dynamic junior faculty provide a stimulating and supportive environment designed to guide graduate students through course work and research training. Major resources include transgenic mouse facilities, flow cytometry, microscope imaging suites, microarray and gene chip facilities, computational labs and facilities for human research. The committee works closely with the government sponsored Diabetes Research and Training Center, Digestive Disease Research Core Center, Training Program in Digestive Diseases and Nutrition, and the Clinical Research Center to offer a broad array of choices for research topics.

The Committee on Molecular Metabolism and Nutrition is a member of the Biomedical Sciences Cluster, which also includes graduate programs from the Committee on Cancer Biology, the Committee on Immunology, and the Committee on Microbiology. The four academic units share several common courses, a seminar series, and additional common events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study.

ADMISSION

Students interested in obtaining the Ph.D. in Molecular Metabolism and Nutrition should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Molecular Metabolism and Nutrition as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- Completion of 9 course credits consisting of basic science, metabolism and elective courses.
- A preliminary exam in the form of a mock NIH-style grant proposal.
- A dissertation based on original research.
- A final thesis examination.

COMMITTEE ON MOLECULAR METABOLISM AND NUTRITION COURSES

MOMN 30901	Molecular Basis of Metabolic Disease	100
MOMN 30910	Grant Writing	100
MOMN 31000	BMSC All Stars	50
MOMN 31100	Ethics in Scientific Research	50
MOMN 34310	Cellular Engineering	100
MOMN 36500	Molecular Nutrition I	100
MOMN 36600	Molecular Nutrition II	100
MOMN 39900	Readings: Metabolism	100
MOMN 40100	Research: Metabolism	300
MOMN 40400	New Insights into Metabolic Research	50



COMMITTEE ON NEUROBIOLOGY

Chair

- Daniel McGehee

Professors

- Edward Awh, Psychology
- Francisco Bezanilla, Biochemistry and Molecular Biology
- Jean Decety, Psychology
- Harriet de Wit, Psychiatry and Behavioral Neuroscience
- Glyn Dawson, Pediatrics
- Ruth Anne Eatock, Neurobiology
- David Freedman, Neurobiology
- Aaron P. Fox, Pharmacological and Physiological Sciences
- Elliot S. Gershon, Psychiatry and Behavioral Neuroscience
- Christopher Gomez, Neurology
- William Green, Neurobiology
- Elizabeth Grove, Neurobiology
- Melina Hale, Organismal Biology and Anatomy
- Christian Hansel, Neurobiology
- Nicholas Hatsopoulos, Organismal Biology and Anatomy
- Leslie Kay, Psychology
- Andrea King, Psychiatry and Behavioral Neuroscience
- Richard P. Kraig, Neurology
- Yamuna Krishnan, Chemistry
- Daniel Margoliash, Organismal Biology and Anatomy
- Peggy Mason, Neurobiology
- James A. Mastrianni, Neurology
- John Maunsell, Neurobiology
- Deborah Nelson, Pharmacological and Physiological Sciences
- Eduardo Perozo, Biochemistry and Molecular Biology
- Brian Popko, Neurology
- Nanduri Prabhakar, Medicine
- Brian Prendergast, Psychology
- Victoria Prince, Organismal Biology and Anatomy
- Clifton Ragsdale, Neurobiology
- Anthony T. Reeder, Neurology
- Raymond P. Roos, Neurology
- S. Murray Sherman, Neurobiology
- Sangram Sisodia, Neurobiology
- Betty Soliven, Neurology
- Wei-Jen Tang, Ben May Department of Cancer Research
- Gopal Thinakaran, Neurobiology
- V. Leo Towle, Neurology
- Edward Vogel, Psychology
- Ming Xu, Anesthesia and Critical Care
- Xiaoxi Zhuang, Neurobiology

Associate Professors

- Sliman Bensmaia, Organismal Biology and Anatomy
- Jason MacLean, Neurobiology
- Jeremy Marks, Pediatrics

- Stephanie Palmer, Organismal Biology and Anatomy
- Wei Wei, Neurobiology

Assistant Professors

- Demet Arac, Biochemistry and Molecular Biology
- Stephanie Cacioppo, Psychiatry and Behavioral Neuroscience
- Robert Carrillo, Molecular Genetics and Cell Biology
- Ellie Heckscher, Molecular Genetics and Cell Biology
- Narayanan (Bobby) Kasthuri, Neurobiology
- Matthew Kaufman, Organismal Biology and Anatomy
- Sarah Keedy, Psychiatry and Behavioral Neuroscience
- Paschalis Kratsios, Neurobiology
- Sarah London, Psychology
- Engin Özkan, Biochemistry and Molecular Biology
- Mark Sheffield, Neurobiology
- Xiaochang Zhang, Human Genetics

The Committee on Neurobiology is an interdepartmental committee designed to provide training and instruction for students interested in the biology of the nervous system, and to encourage communication and the exchange of ideas between faculty members and students interested in neurobiology. Recent technical and conceptual developments in neuroscience have produced remarkable growth in this field. The committee reflects this growth in its structure, having members from different departments whose research interests include a broad spectrum of approaches from the biochemical and molecular to the behavioral and comparative. The committee aims to provide broad training in technical and theoretical aspects of the neurosciences.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students initially are admitted to the Division of the Biological Sciences and must meet divisional requirements. The progress of each student will be supervised during the first year by the Student Advising Committee until the student chooses a thesis advisor. Upon choosing a thesis advisor, an advisory committee chaired by a tenured faculty member who is not the student's thesis advisor is formed. The advisory committee consists of at least four faculty members with a majority being members of the Committee on Neurobiology. As a student's focus changes, the composition of the advisory committee may be modified.

Each student is required to take three core courses, two graded laboratory rotations and four electives (one of which has to be a quantitative course). Usually these courses will be taken during the first year and part of the second year. Required courses include a series of courses on cellular, developmental, and systems neurobiology. Elective courses focus on topics such as neuropharmacology, systems neurophysiology, development, physiology of ion channels and statistics.

During the first year, in addition to taking courses, students rotate through different laboratories. During the second year, the student writes a thesis proposal in NRSA format and defends this before the advisory committee. For the purposes of the divisional requirements, this is the examination testing the candidate's qualifications for candidacy.

The original observations included in the final Ph.D. dissertation should be judged suitable for publication. The final oral examination for the Ph.D. degree consists of a public seminar and a private defense conducted by the advisory committee and by other such members of the University faculties as may be deemed suitable.

NEUROBIOLOGY COURSES

NURB 30020. Intro To Faculty Research. 100 Units.

First-year students in Neurobiology and Computational Neuroscience are required to attend this chalk talk series where faculty members looking for rotating students present the research conducted in their labs. Instructor(s): It varies: faculty members looking for new students

NURB 30107. Behavioral Neuroscience. 100 Units.

This course provides an introduction to neuroethology, examining brain activity relative to behaviors and organisms evaluated from an adaptive and evolutionary perspective. It starts with a brief introduction to classical ethology, and then develops a series of example animal model systems. Both invertebrate and vertebrate models are considered although there is a bias towards the latter. Many of these are "champion" species. There is a heavier demand for reading original data papers than typical in introductory graduate level courses. An integral part of the course is a series of assignments where you develop grant proposals describing novel science experiments in the animal models, thereby challenging your knowledge of the material and teaching aspects of scientific writing. In recent years there has been more computational material presented. The course is not available to undergraduates without prior approval of the instructor.

Instructor(s): D. Margoliash Terms Offered: Spring

Note(s): The course is not available to undergraduates without prior approval of the instructor.

Equivalent Course(s): CPNS 30107, PSYC 40107

NURB 30500. Medical Neurobiology. 300.00 Units.

This intensive course starts by introducing the student to neuroanatomy and neurophysiology. With the vocabulary afforded by that introduction in hand, students will then learn the general principles of perception, followed by focused treatment of vision, hearing and verbal communication, pain, and equilibrium. Students will then learn the key components of voluntary motor control including the motor unit, reflexes, gait, posture, praxis, cerebellar and basal ganglia function, and gaze control. The course wraps up with a consideration of neural contributions to homeostasis and a consideration of how the brain informs the practice of medicine. The course consists of daily lectures, 9 laboratory exercises, 6 review sessions, a midterm and a final. In addition, the ophthalmology and neurology exams will be taught in collaboration with Clinical Skills. At the conclusion of this course, students will be prepared for the boards, the neurological part of CPPT, and most importantly for understanding the neural contributions to disorders of all organ systems.

Instructor(s): P. Mason Terms Offered: Autumn

NURB 31600. Survey of Systems Neuroscience. 100 Units.

This lab-centered course teaches students the fundamental principles of vertebrate nervous system organization. Students learn the major structures and the basic circuitry of the brain, spinal cord and peripheral nervous system. Somatic, visual, auditory, vestibular and olfactory sensory systems are presented in particular depth. A highlight of this course is that students become practiced at recognizing the nuclear organization and cellular architecture of many regions of brain in rodents, cats and primates.

Instructor(s): S. Bensmaia Terms Offered: Autumn

Prerequisite(s): NSCI 20130. For Biological Sciences majors: Three quarters of a Biological Sciences fundamentals sequence

Equivalent Course(s): CPNS 30116, BIOS 24208, ORGB 32500, NSCI 23500

NURB 31800. Cellular Neurobiology. 100 Units.

This course is concerned with the structure and function of the nervous system at the cellular level. The cellular and subcellular components of neurons and their basic membrane and electrophysiological properties will be described. Cellular and molecular aspects of interactions between neurons will be studied. This will lead to functional analyses of the mechanisms involved in the generation and modulation of behavior in selected model systems.

Instructor(s): C. Hansel, X. Zhuang, and R. A. Eatock Terms Offered: Autumn

Equivalent Course(s): CPNS 30000

NURB 32000. Intro To Faculty Research. 100 Units.

First-year students in Neurobiology and Computational Neuroscience are required to attend this chalk talk series where faculty members looking for rotating students present the research conducted in their labs.

Equivalent Course(s): CPNS 31900

NURB 32200. Molecular Neurobiology. 100 Units.

This course is devoted to the examination of current research in the molecular biology of the nervous system. We will explore the structure and function of macromolecules that control, propagate, and elicit neural signaling. Topics covered include 1) structural elements of neurons and glia; 2) structure and function of the synapse; 3) aspects of the molecular basis of neural signaling; and 4) gene expression in neural systems. Lectures draw on current journal literature to present a state-of-the-art background of the topic, the current questions being explored, as well as problems and aspects.

Instructor(s): W. Green; B. Popko Terms Offered: Spring. Alternate

NURB 32300. Molecular Principles of Nervous System Development. 100 Units.

This elective course provides an overview of the fundamental questions in developmental neurobiology. It is based on primary research papers and highlights key discoveries in vertebrate and invertebrate animals that advanced our understanding of nervous system development. Topics covered, among others, will include neural stem cells, neuronal specification and terminal differentiation, and circuit assembly. Dogmas and current debates in developmental neurobiology will be discussed, aiming to promote critical thinking about the field. This advanced-level course is open to upper level undergraduate and graduate students and combines lectures, student presentations, and discussion sections. Neuroscience major undergrads need to have completed the Fundamentals of Neuroscience sequence.

Instructor(s): E. Grove, P. Kratsios Terms Offered: Winter

Prerequisite(s): For undergrads: NSCI 20110, 20120, 20130 and a basic understanding of Genetics, or "BIOS 20187" (Fundamentals of Genetics) is recommended, but not required.

Equivalent Course(s): NSCI 22300, DVBI 32300, CPNS 32300

NURB 32400. Synaptic Physiology. 100 Units.

This course covers the basic principles of synaptic transmission and plasticity using a combination of lecture and discussion of primary literature. Lecture topics cover membrane electrical phenomena that lead to release of neurotransmitter presynaptically, as well as the physiological consequences of postsynaptic receptor activation. Paper discussions, which make up ~ 2/3 of the course, are centered on two major topics: 1) The molecular machinery controlling synaptic vesicle exocytosis and recycling, and 2) Synaptic plasticity covering LTP, LTD, Metaplasticity, Spike-timing dependent plasticity and Homeostatic plasticity. There is significant emphasis on the connections between the various forms of synaptic modification and behavior.

Instructor(s): D. McGehee Terms Offered: Spring

Prerequisite(s): Upper undergrads by consent of instructor

Equivalent Course(s): NSCI 23400

NURB 32900. Perspectives in Drug Abuse. 100 Units.

It is a broad overview course about drug abuse, that is appropriate for graduate students as well as undergraduates. It includes lectures on epidemiology, genetics, neurobiology, experimental methods, policy and treatment, as well as lectures on several specific drug classes. Lectures are by Dr. de Wit and by other invited faculty members, and students are required to present and discuss recent published papers during classes.

Instructor(s): H. de Wit Terms Offered: Spring

Equivalent Course(s): NSCI 21800, BIOS 24135

NURB 33400. Genetic Approaches in Neurobiology. 100 Units.

This course is more technique oriented. The goal is to give a good coverage of different genetic approaches as well as different aspects of neurobiology. Topics are organized by genetic approaches as the following: 1) Transgenic. 2) Gene targeting. 3) Gene replacement. 4) Conditional knockout. 5) Genetic and optical control of neural activity. 6) Transgenic facilitated imaging. 7) Forward genetics and genetic screening. The selection of a variety of papers throughout the course aims to cover different neural pathways, neurotransmitters, receptor/channel types, signaling pathways, and functional implications (learning, memory, addiction, development etc). Specific emphasis will be on the integration of molecular, cellular and systems level approaches in understanding behavior. Lecture time will be devoted to the genetic approaches. Students will present and discuss papers. We will have 2-3 papers each lecture.

Instructor(s): X. Zhuang Terms Offered: Spring

NURB 33500. Protein Structure and Functions in Medicine. 100 Units.

This course explores how molecular machinery works in the context of medicine (vision, fight or flight, cancer, and action of drugs). We first explore the physical and biochemical properties of proteins in the context of cellular signaling. We then examine how proteins and other cellular components make up the signal transduction pathway of humans and conduct their biological functions. The course engages students to strengthen their scientific communication and teaching skills via the in-class podcast, oral examinations, computer-aided structural presentations, student lectures, and discussions.

Instructor(s): W-J. Tang Terms Offered: Spring

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence. Biochemistry strongly recommended.

Equivalent Course(s): CABI 31900, BIOS 21349

NURB 34133. Neuroscience of Seeing. 100 Units.

This course focuses on the neural basis of vision, in the context of the following two questions: 1. How does the brain transform visual stimuli into neuronal responses? 2. How does the brain use visual information to guide behavior? The course covers signal transformation throughout the visual pathway, from retina to thalamus to cortex, and includes biophysical, anatomical, and computational studies of the visual system, psychophysics, and quantitative models of visual processing. This course is designed as an advanced neuroscience course for undergraduate and graduate students. The students are expected to have a general background in neurophysiology and neuroanatomy.

Instructor(s): W. Wei, J. Maunsell, M. Sherman, S. Shevell Terms Offered: Autumn

Prerequisite(s): NSCI 20111 or BIOS 24110 or consent of instructor

Equivalent Course(s): PSYC 24133, PSYC 34133, NSCI 22400, CPNS 34133, BIOS 24133

NURB 34600. Neurobiology of Disease I. 100 Units.

This graduate-level, 100-unit course has an unusual format aimed at fostering lively discussion and interaction. There will be 10 meetings spread at 1-month intervals over the winter, spring and fall quarters. Each meeting will focus on a topic such as Epilepsy, Alzheimer's, or Autism, and feature a brief introduction (by a student) and chalk talks by two faculty, one on clinical aspects of the disease and one on basic research approaches. The student's grade is based on the presentation at one meeting and participation across all meetings.

Instructor(s): C. Gomez, X. Zhuang Terms Offered: Autumn Spring Winter

Note(s): Class meets on the 3rd Wednesday of the month; 100 credits given after 3 quarters attendance.

Equivalent Course(s): CPNS 34600

NURB 34800. Neurons and Glia: Advanced Cellular and Molecular Topics. 100 Units.

This is not a survey course and will provide in-depth analysis of topics in the areas of molecular and cell biology of the nervous system selected by the faculty. The topics to be covered this year are: 1) structure and function of neuronal proteins 2) cell biology of neurons and synapses, 3) neurochemistry and metabolism of neurons, and 4) cell biology of glia. Each topic will be covered as a unit that will start with the main techniques used in that area of research followed by central concepts. Each week will usually consist of two faculty lectures where key papers on that specific topic are assigned and analyzed. In the third session, there will be assigned papers on specific topics from the faculty lectures that will be presented and discussions led by the students.

Instructor(s): W. Green; R. Carrillo Terms Offered: Winter

Prerequisite(s): Required: NSCI 20111, NSCI 20121, NSCI 20130 or consent of Instructor Recommended: BIOS 20200

Equivalent Course(s): BIOS 24141, NSCI 23800

NURB 38800. Neuroscience Ethics. 100 Units.

Neuroscience Senior Ethics class: compulsory for Neurobiology and Computational Neuroscience PhD students in their 4th year (to fulfill BSD ethics requirement). The course, directed by the graduate programs chairs, will consist of 4 sessions with invited speakers to be held in May and June.

Instructor(s): D. McGehee Terms Offered: Winter

Equivalent Course(s): CPNS 38800

NURB 39900. Readings: Neurobiology. 300.00 Units.

Subject matter for individual tutorial-based study is selected through prior consultation and is given under the guidance of a faculty member. The student and faculty member must indicate at time of registration whether the course will be taken on a letter grade or pass/fail basis.

NURB 40100. Rsch: Neurobiology. 300.00 Units.

The student conducts original investigation under the direction of a faculty member. The research is presented and defended as a dissertation in candidacy for the degree of Doctor of Philosophy.

NURB 70000. Advanced Study: Neurobiology. 300.00 Units.

Advanced Study: Neurobiology



DEPARTMENT OF PUBLIC HEALTH SCIENCES

Chair

- Diane S. Lauderdale

Professors

- Habib Ahsan
- James J. Dignam
- Robert D. Gibbons
- Donald Hedeker
- Yuan Ji
- R. Tamara Konetzka
- Benjamin B. Lahey
- Diane S. Lauderdale
- Harold Pollack, School of Social Service Administration

Associate Professors

- Lin Chen
- Brian Chiu
- Dezheng Huo
- Brandon Pierce
- John Schneider, Medicine

Assistant Professors

- Kavi Bhalla
- Prachi Sanghavi
- Loren Saulsberry
- Marcia Tan

Instructors

- Aresha Martinez-Cardoso

Public Health Sciences (PHS) is the home in the Biological Sciences Division to biostatistics, epidemiology and health services research. These core fields in public health research share a focus on the development and implementation of complex analytic methods to understand the determinants of health, the efficacy of experimental treatments, and the structure of health care at the population level. Bringing together these fields in one department underscores their commonality and enhances opportunities for interdisciplinary research. Faculty members lead local, national, and international studies, and also welcome opportunities to collaborate with faculty across the Biological Sciences Division and the university. Substantively, our research themes include social and environmental determinants of health, genetics and disease, the economics of health care, and the evaluation and implementation of new technologies in public health and clinical care. In terms of methodological expertise, areas in which our faculty has developed innovative approaches include: risk factor measurement; multilevel, clustered and longitudinal data; clinical trials; administrative health data; social networks; and statistical methods to assess the genetic and molecular basis of disease.

PROGRAM OF STUDY

Currently, the Department of Public Health Sciences offers a graduate program, the Master of Science in Public Health Sciences for Clinical Professionals, and a Ph.D. program. Current information on graduate programs is available from the department's website at <http://health.bsd.uchicago.edu/>.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The Department of Public Health Sciences at the University of Chicago offers a program of study leading to the Ph.D. with emphasis in biostatistics, epidemiology or health services research. This program will prepare individuals for research careers in population-based research in human health and biomedical science. The program is organized around a common quantitative core curriculum designed to prepare students methodologically for more in-depth study in their chosen field and for dissertation research. Beyond the core curriculum, each student will choose a major disciplinary area of concentration, take a sequence of advanced courses in that area, and prepare a dissertation of independent, original, and rigorous research. Opportunities for such concentrated study will be available in the three broad areas of biostatistics, epidemiology and health services research, areas of expertise represented by department faculty.

In addition to the concentration, each student will choose a minor program of study in another area either represented by department faculty or offered elsewhere in the Biological Sciences Division or on campus. Tailored to each individual student, the minor will vary in its degree of specificity from student to student. It may be in one of the broad areas represented by the department, or in a more specialized area. Examples of specialized minors include psychiatric or cancer epidemiology, health economics, economics of aging, clinical trials design, cancer biology, genetic or molecular epidemiology, bioinformatics, or medical decision theory.

PROGRAM REQUIREMENTS

Students should expect to complete the program in 5 years by fulfilling the following requirements:

Complete 18 graduate level courses, including:

- A *core curriculum* of up to six courses.
- A *major concentration program* approved by the faculty consisting of at least 7 additional courses in a disciplinary domain (such as biostatistics).
- A *minor program* approved by the faculty consisting of at least 3 additional courses in a second disciplinary area.

Successfully complete a course in scientific integrity and the ethical conduct of research, usually in the first year of study (divisional ethics requirement).

Pass a multi-part *preliminary examination* demonstrating mastery of the core curriculum and of foundational knowledge in the chosen area of concentration.

Teach two quarters for credit in pre-approved teaching assistant positions in the biological sciences (divisional teaching requirement).

Establish a doctoral dissertation committee, present proposed dissertation research to members of that committee and other interested faculty, and obtain written approval from the committee on the proposed dissertation research.

Prepare and defend a doctoral dissertation of independent, original, and rigorous research in the chosen area of concentration.

Participate in the departmental seminar, in weekly faculty/student workshops, and in research workshops that overlap with the chosen area of concentration.

REQUIRED COURSES

PBHS 30910	Epidemiology and Population Health	100
PBHS 32400	Applied Regression Analysis	100
PBHS 31001	Epidemiologic Methods	100
PBHS 32700	Biostatistical Methods	100
PBHS 35100	Health Services Research Methods	100
PBHS 35411	The U.S. Health Care System	100

APPLICATION FOR ADMISSION

Applications should be received by December 1st for entrance into the program in Autumn Quarter and should consist of a BSD application (including three letters of recommendation), uploaded official transcript(s) from all degree institutions, GRE scores, TOEFL scores (if applicable), CV/detailed relevant work history, a personal statement, and a research statement indicating area of major concentration.

Interested students should visit the department website at <https://pbhs.uchicago.edu/>.

MASTER OF SCIENCE IN PUBLIC HEALTH SCIENCES FOR CLINICAL PROFESSIONALS

The Master of Science Program for Clinical Professionals is a course of study in the theory, methods, and concepts of biostatistics, epidemiology, and health services research needed to design and carry out clinical and epidemiologic research programs. It is designed for the professional enhancement of physicians and other clinical professionals. The program can be completed in one year of full time study, or it can be undertaken in conjunction with a clinical fellowship or training program, in which case the course work may be distributed over two or three years. Students in the program acquire skills with basic statistical methods, followed by additional training in the fundamental theory and methods of epidemiology, biostatistics, and health services research. Through choice from a broad range of elective courses, students can specialize in one of the three disciplinary areas.

ENTRANCE REQUIREMENTS

Applicants should either have a doctoral level clinical degree (such as M.D., D.O., or nursing Ph.D.) from an accredited institution, or must have completed pre-clinical training at an accredited medical school. In the latter

case, the candidate must provide a plan for completion of both the M.D. and S.M. degrees, and a letter of support from the candidate's medical school.

PROGRAM REQUIREMENTS

A candidate in this program for the degree of Master of Science in Public Health Sciences must complete the required and elective courses (nine courses in total), and complete a master's paper.

REQUIRED COURSES

One of the following courses:		100
PBHS 30700	Clinical Epidemiology	
PBHS 30910	Epidemiology and Population Health	
And the following three courses:		300
PBHS 31001	Epidemiologic Methods	
PBHS 32100	Introduction to Biostatistics *	
PBHS 32400	Applied Regression Analysis	
And one of the following courses:		100
PBHS 35100	Health Services Research Methods	
PBHS 35411	The U.S. Health Care System	
And one of the following courses:		100
PBHS 32600	Analysis of Categorical Data	
PBHS 32700	Biostatistical Methods	
PBHS 33300	Applied Longitudinal Data Analysis	
And three electives		300
Total Units		900

* STAT 22000 or equivalent can be substituted for this course.

APPLICATION FOR ADMISSION

Applications for admission should be completed by December 1st for entry into the program in the following summer quarter.

If the degree program will be pursued while the candidate will be participating in a clinical training program, a letter of support from the training program director is required. Candidates must also submit a statement describing how the proposed course of study will enhance their professional objectives. In addition, candidates must provide transcripts from all post secondary institutions, MCAT or GRE scores, and a completed Biological Sciences Division application.

Interested students should visit the department website at <http://health.bsd.uchicago.edu>.

PUBLIC HEALTH SCIENCES COURSES

PBHS 30700. Clinical Epidemiology. 100 Units.

Clinical epidemiology is the "application of epidemiologic principles and methods to problems encountered in clinical medicine." This course introduces the basic principles of epidemiologic study design, analysis and interpretation, with a particular focus on clinical applications. The course includes lectures and discussions based on critical appraisal of significant research articles. The course is primarily intended for, but not restricted to, students with prior clinical training. Public Health Sciences 30700 and 30900 may not both be taken for credit, either will fulfill the basic epidemiology requirement for the MSCP in Public Health Sciences and either will serve as the epidemiology prerequisite for Public Health Sciences 31001.

Instructor(s): B. Chiu, D. Lauderdale Terms Offered: Summer

Prerequisite(s): Introductory statistics recommended, may be taken concurrently.

Equivalent Course(s): CCTS 45100

PBHS 30910. Epidemiology and Population Health. 100 Units.

This course does not meet requirements for the biological sciences major. Epidemiology is the study of the distribution and determinants of health and disease in human populations. This course introduces the basic principles of epidemiologic study design, analysis, and interpretation through lectures, assignments, and critical appraisal of both classic and contemporary research articles.

Instructor(s): D. Lauderdale Terms Offered: Autumn

Prerequisite(s): STAT 22000 or other introductory statistics highly desirable. For BIOS students-completion of the first three quarters of a Biological Sciences Fundamentals sequence.

Equivalent Course(s): ENST 27400, STAT 22810, PPHA 36410, HLTH 20910

PBHS 31001. Epidemiologic Methods. 100 Units.

This course expands on the material presented in "Principles of Epidemiology," further exploring issues in the conduct of epidemiologic studies. The student will learn the application of both stratified and multivariate methods to the analysis of epidemiologic data. The final project will be to write the "specific aims" and "methods" sections of a research proposal on a topic of the student's choice.

Instructor(s): B. Chiu Terms Offered: Winter

Prerequisite(s): PBHS 30700 or PBHS 30900 or PBHS 30910 AND PBHS 32400 or applied statistics courses through multivariate regression.

Equivalent Course(s): STAT 35700

PBHS 31200. Cancer Epidemiology. 100 Units.

The purpose of this course is to review the basic concepts and issues relevant to cancer epidemiology. Specifically, this course will focus on interpreting cancer statistics, and describing the current state of knowledge regarding the etiology and risk factors for the major cancer sites. In addition, issues in research design and interpretation within the context of cancer epidemiology, as well as the molecular and cellular basis of carcinogenesis as it pertains to cancer occurrence in populations will be discussed. The course is appropriate for students who have an introductory knowledge of epidemiology. Previous study of cancer biology is helpful but not required.

Instructor(s): B. Chiu Terms Offered: Winter. Not offered 2019-20

Prerequisite(s): PBHS 30700 or PBHS 30910

PBHS 31300. Infectious Disease Epidemiology; Networks and Modeling. 100 Units.

This intermediate-level epidemiology course directed by two infectious disease epidemiologist-physicians will provide an up to date perspective on forgotten, contemporary and emerging infections. The course lectures and readings will provide a rigorous examination of the interactions among pathogens, hosts and the environment that produce disease in diverse populations. In addition to the demographic characteristics and the behaviors of individuals that are associated with a high risk of infection, we will examine complex aspects of the environment as they pertain to disease transmission. These include poverty, globalization, social networks, public health, and racial and ethnic disparities. Methodologic approaches to infectious disease epidemiology that will be covered include traditional study designs, molecular epidemiology, social network analysis, modeling, and network science. Local and global approaches will be applied to case studies from the United States, Asia, and Africa.

Instructor(s): TBN Terms Offered: TBD. Not offered in 2019-20.

Prerequisite(s): Biology majors: Three quarters of a Biological Sciences Fundamentals sequence. HSTD 30700 or HSTD 30910 or introductory epidemiology or consent of instructor

Equivalent Course(s): BIOS 25419, CCTS 43200, MEDC 31300

PBHS 31450. Social Inequalities in Health: Race/Ethnicity & Class. 100 Units.

TBD

Instructor(s): Aresha Martinez-Cardoso and Diane Lauderdale Terms Offered: Spring. New course Spring 2020

Equivalent Course(s): HLTH 27450, PBHS 27450

PBHS 31510. Critical Readings in Epidemiology. 100 Units.

Course consists of reading and critiquing important and innovative recent papers in epidemiology. Each week, there will be a different substantive or disease focus for the papers. Research areas covered will be primarily, but not exclusively, in noninfectious diseases. Different faculty will lead the discussion each week and students will prepare and present summary critiques of the articles.

Instructor(s): TBN Terms Offered: Spring. Not offered in 2019-20.

Prerequisite(s): PBHS 30700 or PBHS 30910

PBHS 31831. Genetic & Molecular Epidemiology. 100 Units.

This course is designed for students with strong research interests related to identifying and characterizing the role of genetic and molecular features in human disease. Students will be introduced to the key concepts and methodological issues encountered in epidemiological studies that utilize genetic and molecular data. This course will train students on the theoretical and practical aspects of study design and data generation, and also provide the relevant hands-on training for quality control, management, and analysis of large-scale genomic/molecular data. Students are expected to have taken prior coursework in epidemiology, biostatistics, and genetics.

Instructor(s): B. Pierce Terms Offered: Spring

Prerequisite(s): PBHS 30700 or PBHS 30900, or PBHS 30910 (or introductory epidemiology) AND HGEN 47000 or consent of instructor.

PBHS 31900. Global Health Metrics. 100 Units.

This course provides an overview of the causes of illness and injury in populations across the world and the most important risk factors. We will discuss how population health is measured using summary indicators that combine mortality and non-fatal health outcomes. We will use these indicators to compare and contrast the health of populations across global regions and in time. Sound measurement of the global burden of disease is essential for prioritizing prevention strategies. Therefore, there will be a strong emphasis on understanding how data sources in information-poor settings are used to generate estimates of population health.

Instructor(s): Kavi Bhalla Terms Offered: Spring

Prerequisite(s): N/A

Equivalent Course(s): PBHS 27900, PBPL 27905

PBHS 32100. Introduction to Biostatistics. 100 Units.

This course will provide an introduction to the basic concepts of statistics as applied to the bio-medical and public health sciences. Emphasis is on the use and interpretation of statistical tools for data analysis. Topics include (i) descriptive statistics; (ii) probability and sampling; (iii) the methods of statistical inference; and (iv) an introduction to linear and logistics regression.

Instructor(s): J. Cursio Terms Offered: Summer

Prerequisite(s): 2 quarters of pre-calculus

Note(s): *In addition to the course, there is a statistical computing workshop.

Equivalent Course(s): CCTS 45000

PBHS 32400. Applied Regression Analysis. 100 Units.

This course introduces the methods and applications of fitting and interpreting multiple regression models. The primary emphasis is on the method of least squares and its many varieties. Topics include the examination of residuals, the transformation of data, strategies and criteria for the selection of a regression equation, the use of dummy variables, tests of fit, nonlinear models, biases due to excluded variables and measurement error, and the use and interpretation of computer package regression programs. The techniques discussed are illustrated by many real examples involving data from both the natural and social sciences. Matrix notation is introduced as needed. Prerequisite: PBHS 32100. Equivalent Course(s): PBHS 32400

Terms Offered: Autumn Spring

Prerequisite(s): STAT 22000 or 23400 with a grade of at least C, or STAT 22200 or 22600 or 24500 or 24510 or PBHS 32100, or AP Statistics credit for STAT 22000. Also two quarters of calculus (MATH 13200 or 15200 or 15300 or 16200 or 16210 or 15910 or 19520 or 19620 or 20250 or 20300 or 20310).

Equivalent Course(s): STAT 22400

PBHS 32600. Analysis of Categorical Data. 100 Units.

This course covers statistical methods for the analysis of qualitative and counted data. Topics include description and inference for binomial and multinomial data using proportions and odds ratios; multi-way contingency tables; generalized linear models for discrete data; logistic regression for binary responses; multi-category logit models for nominal and ordinal responses; loglinear models for counted data; and inference for matched-pairs and correlated data. Applications and interpretations of statistical models are emphasized.

Terms Offered: Winter

Prerequisite(s): STAT 22000 or 23400 with a grade of at least C+, or STAT 22200 or 22400 or 24500 or 24510 or PBHS 32100, or AP Statistics credit for STAT 22000. Also two quarters of calculus (MATH 13200 or 15200 or 15300 or 16200 or 16210 or 15910 or 19520 or 19620 or 20250 or 20300 or 20310).

Equivalent Course(s): STAT 22600

PBHS 32700. Biostatistical Methods. 100 Units.

This course is designed to provide students with tools for analyzing categorical, count, and time-to-event data frequently encountered in medicine, public health, and related biological and social sciences. This course emphasizes application of the methodology rather than statistical theory (e.g., recognition of the appropriate methods; interpretation and presentation of results). Methods covered include contingency table analysis, Kaplan-Meier survival analysis, Cox proportional-hazards survival analysis, logistic regression, and Poisson regression.

Instructor(s): J. Dignam Terms Offered: Winter

Prerequisite(s): PBHS 32400, STAT 22400 or STAT 24500 or equivalent or consent of instructor.

Equivalent Course(s): STAT 22700

PBHS 32901. Introduction to Clinical Trials. 100 Units.

This course will review major components of clinical trial conduct, including the formulation of clinical hypotheses and study endpoints, trial design, development of the research protocol, trial progress monitoring, analysis, and the summary and reporting of results. Other aspects of clinical trials to be discussed include ethical and regulatory issues in human subjects research, data quality control, meta-analytic overviews and consensus in treatment strategy resulting from clinical trials, and the broader impact of clinical trials on public health.

Instructor(s): Y. Ji Terms Offered: Winter

Prerequisite(s): PBHS 32100 or STAT 22000; Introductory Statistics or Consent of Instructor

Equivalent Course(s): STAT 35201

PBHS 33200. Statistical Analysis with Missing Data. 100 Units.

This course is intended to introduce basic concepts and provide a guide to conducting missing data analysis using the statistical software R. The course will cover topics including Expectation-Maximization algorithm, weighting methods, imputation and other likelihood-based approaches to the analysis of missing data. Some other relevant topics will also be introduced, such as non-ignorable missing data, machine learning methods and multivariate missing data analysis. Computation and application will be emphasized, rather than statistical theory. In the end of the course, the students are expected to complete a final project related to missing data analysis.

Instructor(s): L. Chen Terms Offered: TBD. Not offered in 2019-20.

Prerequisite(s): PBHS 32400/STAT 22400; or STAT 24500; or equivalent; and basic programming skill using R or equivalent

PBHS 33300. Applied Longitudinal Data Analysis. 100 Units.

Longitudinal data consist of multiple measures over time on a sample of individuals. This type of data occurs extensively in both observational and experimental biomedical and public health studies, as well as in studies in sociology and applied economics. This course will provide an introduction to the principles and methods for the analysis of longitudinal data. Whereas some supporting statistical theory will be given, emphasis will be on data analysis and interpretation of models for longitudinal data. Problems will be motivated by applications in epidemiology, clinical medicine, health services research, and disease natural history studies.

Instructor(s): D. Hedeker Terms Offered: Spring

Prerequisite(s): PBHS 32400/STAT 22400 or equivalent, and PBHS 32600/STAT 22600 or PBHS 32700/STAT 22700 or equivalent; or consent of instructor.

Equivalent Course(s): STAT 36900

PBHS 33400. Multilevel Modeling. 100 Units.

This course will focus on the analysis of multilevel data in which subjects are nested within clusters (e.g., health care providers, hospitals). The focus will be on clustered data, and several extensions to the basic two-level multilevel model will be considered including three-level, cross-classified, multiple membership, and multivariate models. In addition to models for continuous outcomes, methods for non-normal outcomes will be covered, including multilevel models for dichotomous, ordinal, nominal, time-to-event, and count outcomes. Some statistical theory will be given, but the focus will be on application and interpretation of the statistical analyses.

Instructor(s): D. Hedeker Terms Offered: Autumn

Prerequisite(s): PBHS 32400 and PBHS 32700 or consent of instructor.

PBHS 33500. Statistical Applications. 100 Units.

This course provides a transition between statistical theory and practice. The course will cover statistical applications in medicine, mental health, environmental science, analytical chemistry, and public policy. Lectures are oriented around specific examples from a variety of content areas. Opportunities for the class to work on interesting applied problems presented by U of C faculty will be provided. Although an overview of relevant statistical theory will be presented, emphasis is on the development of statistical solutions to interesting applied problems.

Instructor(s): R. Gibbons Terms Offered: Autumn

Prerequisite(s): PBHS 32700/STAT 22700 or STAT 34700 or consent of instructor.

Equivalent Course(s): STAT 35800

PBHS 35100. Health Services Research Methods. 100 Units.

The purpose of this course is to better acquaint students with the methodological issues of research design and data analysis widely used in empirical health services research. To deal with these methods, the course will use a combination of readings, lectures, problem sets (using STATA), and discussion of applications. The course assumes that students have had a prior course in statistics, including the use of linear regression methods.

Instructor(s): P. Sanghavi Terms Offered: Spring

Prerequisite(s): At least one course in linear regression and basic familiarity with STATA; or consent of instructor.

Equivalent Course(s): HLTH 29100, PPHA 38010, SSAD 46300

PBHS 35500. Introduction to U.S. Health Policy and Politics. 100 Units.

The purpose of this course is to introduce students to the concepts needed to critically evaluate U.S. health policy issues. The course will 1) provide an overview of the U.S. health system including its institutions, stakeholders, and financing mechanisms, 2) describe the politics of health and illuminate how the structure of our political system shapes health policy outcomes, and 3) offer a framework for assessing the critical features central to health policy debates. Building upon this knowledge, the course will conclude with a discussion of strategies for influencing the health policy process and how they might be employed in future leadership roles within the health sector.

Instructor(s): Loren Saulsberry Terms Offered: Spring

Prerequisite(s): None

Equivalent Course(s): SSAD 45011, HLTH 25500, PBHS 28500

PBHS 38010. Introduction to Health Economics. 100 Units.

This course covers the foundations of the economics of health care. Content includes demand for health, medical care, and insurance; supply of medical care and behavior of health care practitioners; and economic perspectives on measurement in health care research. Using a combination of lectures, readings, and problem sets, the goal is for students to acquire a basic understanding of economic knowledge and thinking that can be applied to current challenges in health care policy and practice. The course is open to undergraduate and graduate students with at least one prior course in microeconomics.

Instructor(s): T. Konetzka Terms Offered: Winter 2019-20

Prerequisite(s): Microeconomics course

Equivalent Course(s): HLTH 28010, PBHS 28010, PPHA 38290

PBHS 38300. Health Economics and Public Policy. 100 Units.

This course analyzes the economics of health and medical care in the United States with particular attention to the role of government. The first part of the course examines the demand for health and medical and the structure and the consequences of public and private insurance. The second part of the course examines the supply of medical care, including professional training, specialization and compensation, hospital competition, and finance and the determinants and consequences of technological change in medicine. The course concludes with an examination of recent proposals and initiatives for health care reform.

Instructor(s): Meltzer, D Terms Offered: Spring

Prerequisite(s): PBPL 20000 or ECON 20000 and one undergraduate course in quantitative research methods (Statistics or Econometrics) or the equivalent or consent of the instructor

Equivalent Course(s): ECON 27700, CCTS 38300, PBPL 28300, PPHA 38300

PBHS 38400. Advanced Topics in Health Economics. 100 Units.

The purpose of this course is to provide substantial exposure to the state of the evidence and the major theoretical and empirical approaches used to study salient issues in health economics. Selected topics may vary from year to year; examples include health capital, health insurance, health behaviors, health care market structure and competition, not-for-profit ownership, payment incentives, and the effects of information on provider behavior (e.g. public reporting and value-based purchasing) and consumer behavior (e.g., advertising and medical decision making)

Instructor(s): T. Konetzka Terms Offered: Winter. Not offered in 2019-20

Prerequisite(s): Graduate courses in microeconomics and econometrics or statistics, including the use of linear and nonlinear regression methods.

PBHS 39000. Master's Readings: Public Health Sciences. 300.00 Units.

Arrange course content and meeting times with instructor.

PBHS 39100. Master's Research: Public Health Sciences. 300.00 Units.

Arrange course content and meeting times with instructor.

PBHS 40000. Public Health Sciences PhD Research & Training. 300.00 Units.

Arrange course content and meeting times with instructor.

PBHS 40100. Advanced Topics in Ethics for Public Health Sciences. 50 Units.

Arrange course content and meeting times with instructor.

PBHS 40500. Advanced Epidemiologic Methods. 100 Units.

This course examines some features of study design, but is primarily focused on analytic issues encountered in epidemiologic research. The objective of this course is to enable students to conduct thoughtful analysis of epidemiologic and other population research data. Concepts and methods that will be covered include: matching, sampling, conditional logistic regression, survival analysis, ordinal and polytomous logistic regressions, multiple imputation, and screening and diagnostic test evaluation. The course follows in sequence the material presented in "Epidemiologic Methods."

Instructor(s): D. Huo Terms Offered: Spring

Prerequisite(s): PBHS 31001

PBHS 43010. Applied Bayesian Modeling and Inference. 100 Units.

Course begins with basic probability and distribution theory, and covers a wide range of topics related to Bayesian modeling, computation, and inference. Significant amount of effort will be directed to teaching students on how to build and apply hierarchical models and perform posterior inference. The first half of the course will be focused on basic theory, modeling, and computation using Markov chain Monte Carlo methods, and the second half of the course will be about advanced models and applications. Computation and application will be emphasized so that students will be able to solve real-world problems with Bayesian techniques.

Instructor(s): Y. Ji Terms Offered: TBD

Prerequisite(s): STAT 24400 and STAT 24500 or master level training in statistics.

Equivalent Course(s): STAT 35920

PBHS 43201. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverse-probability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for cross-section and panel data, and fixed effects model. Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005 is a prerequisite. This course is a prerequisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong, K. Yamaguchi
Terms Offered: Winter

Prerequisite(s): Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005

Note(s): CHDV Distribution: M; M

Equivalent Course(s): SOCI 30315, CHDV 30102, STAT 31900, CHDV 20102, PLSC 30102, MACS 51000

PBHS 45610. Policy Analysis: Meths/Apps. 100 Units.

This master's-level course provides students with the basic tools of policy analysis. Students will learn and apply tools of decision analysis in written group assignments and in an accompanying computer lab. Students will also learn and apply concepts of cost-effectiveness, cost-benefit, and cost-utility analysis with social service, medical, public health applications. Doctoral students and master's students who intend to take the course Advanced Applications of Cost-Effectiveness Analysis in Health will complete two additional laboratory assignments.

Topics to be covered include: Decision trees for structured policy analysis, the economic value of information, analysis of screening programs for HIV and child maltreatment, sensitivity analysis, cost-effectiveness analysis of life-saving interventions and programs to reduce behavioral risk, valuing quality of life outcomes, ethical issues in cost-benefit analysis, analysis of irrational risk behaviors. Substantive areas covered include: HIV/substance use prevention, school-based prevention of sexual risk, smoking cessation, and housing policy. In the associated learning lab, students will use computer decision software to build and analyze decision trees in policy-relevant examples. They will conduct one-way and two-way sensitivity analysis to explore the impact of key parameters on cost-effectiveness of alternative policies. Students will receive an introduction to dynamic modeling in the context of HIV prevention, cancer screening, and transportation programs.

Equivalent Course(s): SSAD 45600, PPHA 40101

PBHS 49000. Ph. D. Rdgs: Public Health Sciences. 300.00 Units.

Arrange course content and meeting times with instructor.

PBHS 49100. Ph. D. Rsch: Public Health Sciences. 300.00 Units.

Arrange course content and meeting times with instructor.

PBHS 70000. Advanced Study: Public Health Sciences. 300.00 Units.

Advanced Study: Public Health Sciences



CLINICAL DEPARTMENTS IN THE BIOLOGICAL SCIENCES

Faculty in the Division of the Biological Sciences participate in undergraduate and graduate medical education through the Pritzker School of Medicine, and maintain a vital clinical enterprise through the University of Chicago Medical Center. Twelve clinical departments offer a wide variety of educational and research opportunities to students and treatment options to patients. In addition, one of these departments, described in the section on the Basic Biological Sciences, offers graduate programs leading to the PhD degree: Radiology (Medical Physics). Brief descriptions of each of the clinical departments appear below. Additional details about our clinical departments can be found by visiting the Biological Sciences Division (<http://biologicalsciences.uchicago.edu>) and Pritzker School of Medicine (<http://pritzker.uchicago.edu>) websites.

DEPARTMENT OF ANESTHESIA AND CRITICAL CARE

The Department of Anesthesia and Critical Care offers clinical training and educational and research opportunities for qualified students at all levels. While one mission of the department is to provide high quality clinical anesthesia (including pain therapy, intensive care, and perioperative management), the Department of Anesthesia and Critical Care also maintains active research programs in neurobiology, echocardiography, patient safety, psychomotor pharmacology, clinical pharmacology (including herbal medications in conjunction with the TANG Center), and outcomes research. Educational opportunities for students occur at the undergraduate level, in graduate courses that are led by our faculty, during the course of the medical school curriculum, and at the post graduate level. We also provide pre doctoral and post doctoral positions in our laboratories and provide post residency clinical training in critical care, pain management, cardiothoracic anesthesia and pediatric anesthesia. Individuals seeking opportunities for research or study within the department are invited to call the Chairman of the Department of Anesthesia and Critical Care, Pritzker School of Medicine, 5841 South Maryland Avenue, MC 4028, Chicago, IL 60637, telephone: (773) 702-2545.

DEPARTMENT OF FAMILY MEDICINE

The Department of Family Medicine was established by Bernard Ewigman, MD MSPH, who was recruited as the Founding Chairman in 2002. Since that time, the Department has grown to include many clinical practices, over 70 faculty members, medical student education, a residency program, fellowship programs, and a practice based research network. The Department is based primarily at the University of Chicago, the NorthShore University Health System and in the communities served both on the south and north sides of the Chicagoland area. The Department is unique in its focus on community based practice, education in community based settings, and research and scholarship relevant to improving primary care in both urban and suburban practice and the health of the communities we serve.

DEPARTMENT OF MEDICINE

The Department of Medicine is comprised of nearly 300 full-time faculty members who provide clinical, translational, and basic research training for individuals at all levels, including College, undergraduate medical, graduate medical, and post-doctoral trainees. Because of the diverse interests of the faculty, the department is organized into sub-specialty sections with each represented by nationally recognized leaders in their field. The sections include cardiology, computational medicine, dermatology, endocrinology, emergency medicine, gastroenterology, geriatrics, general internal medicine, genetic medicine, hospital medicine, nephrology, infectious disease, hematology/oncology, pulmonary/critical care medicine and rheumatology.

The Department of Medicine has a long tradition of conducting original and rigorous biomedical and clinical research of fundamental significance in addition to providing a full range of outpatient, inpatient, and consultative services. Trainees can work with departmental faculty through participation in degree granting programs in the Pritzker School of Medicine or graduate programs, post-graduate residency and fellowship programs, or other specialty research programs.

Further information can be obtained from the appropriate degree granting entity or post-graduate training program. General questions can be directed to the Vice Chairs for Research: Dr. Julian Solway or Dr. Bana Jabri.

DEPARTMENT OF NEUROLOGY

The Department of Neurology offers clinical training and research opportunities in the study of the nervous system and in neurological disorders. The department has a number of educational programs directed towards medical students, graduate students, residents and post residency fellows. These programs offer instruction in basic and translational research and in clinical neurology as well as the subspecialties of neurology that include pediatric neurology, neuroimmunology, neurovirology, clinical neurophysiology and sleep disorders, stroke, movement disorders and cognitive disorders. The department does not admit students nor offer a degree program. Nevertheless, opportunities are available for students who have been admitted to a Ph.D. program to pursue research under the direction of several of the department's faculty who direct laboratory research programs in basic neuroscience and/or neurological disease research. Post doctoral and post residency positions

are also available. Candidates for graduate and post graduate study are invited to visit the faculty and explore opportunities for research. Please contact the department at (773) 702-7860

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

The Department of Obstetrics and Gynecology is located in the Chicago Lying-in Hospital in Hyde Park, which is an integral part of the University of Chicago Medical Center complex. The department is dedicated to the health care of women and has an outpatient clinic adjacent to the hospital. The faculty care for women with high risk pregnancies, gynecologic malignancies, those requiring complex gynecologic and pelvic reconstructive surgery as well as minimal invasive surgery, reproductive health and complex contraception, and problems of reproductive endocrinology & infertility, including assisted reproductive technologies.

The educational activities of the department are multi-faceted and include medical students, residents and fellows under the supervision of the faculty. We have recently established an affiliation with an excellent community-based academic institution in Evanston, NorthShore University Health System. This led to a major expansion of our clinical and research activities which are carried out within the department at both sites and encompass basic translational laboratory investigation, clinical trials and population-based epidemiology. We encourage students, interns, and residents to participate in these scientific endeavors and a large number pursue careers in academic medicine.

Our Departmental activities take place in the outpatient setting, the labor and delivery suite, the operating rooms, the inpatient wards, and in our laboratories. Research opportunities are available in all the subspecialty areas as well as genetics. Subspecialty fellowships are also available in Family Planning, Maternal-Fetal Medicine and Urogynecology and Pelvic Reconstructive Surgery. For more information, please call (773) 702-6726.

DEPARTMENT OF PATHOLOGY

Please see the listing under <http://pathology.uchicago.edu/>

DEPARTMENT OF PEDIATRICS

The Department of Pediatrics offers instruction and research in normal and abnormal growth and development of infants and children and in the prevention, diagnosis and treatment of illness in children. All educational activities are integrated with research and scholarly endeavors to advance knowledge in the field of child healthcare. The Department of Pediatrics has clinical and research facilities at the University of Chicago Medicine Comer Children's Hospital; at La Rabida Children's Hospital and Research Center (children's chronic diseases); at the University of Chicago Friend Family Health Center at 55th and Cottage Grove Avenue; and at ambulatory clinical facilities at pediatric offices located in the southern suburbs and northwest Indiana.

Comprising over 100 faculty and research associates, the department conducts extensive research programs in a wide range of disciplines related to child health, growth, development and public policy. Research is conducted at all of the sites mentioned above. Postdoctoral fellows, both M.D.s and Ph.D.s, as well as undergraduate medical students conduct research and receive research education guided by departmental faculty.

Candidates for graduate and post graduate study are invited to visit with the various faculty to explore a wide range of opportunities. Contact the office of the department chair at the University of Chicago Medicine Comer Children's Hospital, 5721 South Maryland Avenue, MC8000, Suite K160, Chicago, IL 60637, or call (773) 702-6205.

DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL NEUROSCIENCE

Full time faculty in the Department of Psychiatry and Behavioral Neuroscience teach and deliver inpatient, outpatient, and consultation services in mood disorders, anxiety disorders, personality disorders, eating disorders, addictive disorders, and schizophrenia. Primary and affiliated teaching and clinical institutions besides the University of Chicago Medical Center include Evanston Hospital and Chicago Lakeshore Hospital. Assessments include psychiatric diagnostic evaluation, psychological testing, neuropsychological testing, and other structured evaluations. Interventions may include a broad range of individual, family, and group therapies, including cognitive behavioral, psychodynamic, and psychopharmacologic treatments. Electroconvulsive therapy is available. Specialties in the Child and Adolescent Section include attention deficit hyperactivity disorder, disruptive behavior disorders, developmental disorders, and behavioral and learning difficulties. Major research efforts across the Department are in molecular pharmacology, behavioral psychopharmacology, behavioral and molecular genetics, affective neuroscience and neuroimaging, and psychopharmacology.

The department does not offer any degrees, but elective opportunities are available for degree candidates from other programs. Major educational opportunities for medical students, graduate students, interns, residents, fellows, other physicians and clinical psychologists are linked to through <http://psychiatry.uchicago.edu/>.

For more information, please contact the Psychiatry Office of Education at (773) 702-0529 or the Chair of Psychiatry at (773) 834-7008, further contact information available at <http://psychiatry.uchicago.edu/>.

DEPARTMENT OF RADIATION AND CELLULAR ONCOLOGY

The Department of Radiation and Cellular Oncology currently provides clinical radiation oncology services at four practice locations: the University of Chicago's Center for Advanced Medicine (DCAM), the Outpatient Care Center (OCC) at the University of Illinois at Chicago, the University of Chicago Comprehensive Cancer Center at Silver Cross, and at Sherman Hospital. Approximately 1900 patients per year are treated at these facilities. State of the art clinical facilities include 8 image-guided linear accelerator treatment systems, stereotactic radiosurgery/stereotactic body radiotherapy, high dose-rate brachytherapy, and multislice wide-bore CT scanners.

The department conducts basic and translational research in cancer biology, radiation treatment physics and radiation biology. The department stresses a basic science approach to radiation oncology and state of the art investigation of molecular aspects of cancer through joint research programs with faculty members in the Division of the Biological Sciences. In addition a broad spectrum of clinical research is supported, including internal and multi-institutional treatment protocols and outcomes analysis.

The Department of Radiation and Cellular Oncology, in conjunction with the Department of Radiology, offers programs leading to the Ph.D. degree in medical physics. For more information, refer to the Committee in Medical Physics listing.

DEPARTMENT OF RADIOLOGY

Please see the Graduate Program in Medical Physics listing under Basic Biological Sciences.

DEPARTMENT OF SURGERY

The Department of Surgery has a very active research program spanning the basic, translational, and clinical sciences. While traditionally surgery has focused on the excision of diseased tissues and repair of injury, it is now equally concerned with specific interventions that facilitate tissue regeneration, supplement the body through the transplantation of organs and the implantation of synthetic materials and tissues developed in vitro, and target particular diseased cells or modulate the behavior of normal cells.

Research in the Department of Surgery is organized into several focus areas including transplantation immunology and inflammation, carcinogenesis and metastasis, tissue regeneration and engineering, and cardiothoracic and vascular research. Each of these areas encompasses multiple clinical specialties within the department.

Specific current research programs include studies of the immune response to synthetic materials, mechanisms of immune tolerance in transplantation, crosstalk between the intestinal microbiome and the intestinal epithelium, molecular therapeutic strategies in brain cancer, tumorigenesis and metastasis in prostate and ovarian cancer, and signaling mechanisms in heart failure.

Faculty members of the Department of Surgery teach in a number of courses in the College and are members of a variety of graduate programs in the Biological Sciences Division. They are also extensively involved in the Medical Scientist Training Program (M.D.-Ph.D). Undergraduate, graduate and medical students interested in participating in research within the department should contact individual investigators.



THE PRITZKER SCHOOL OF MEDICINE

MISSION

At the University of Chicago, in an atmosphere of interdisciplinary scholarship and discovery, the Pritzker School of Medicine is dedicated to inspiring diverse students of exceptional promise to become leaders and innovators in science and medicine for the betterment of humanity.

OVERVIEW

The University of Chicago matriculated its first class of medical students in 1927 and today is a national leader in training physicians and physician-scientists. The great traditions which underlie the school's history include the presence of a full-time teaching faculty devoted to working with students, a strong emphasis on research and discovery, and a commitment to translating the most recent advances in biomedical science to the bedside.

The Pritzker School of Medicine is unique among medical schools in that it is on the campus of a major research university, allowing our medical students ample opportunity to find and participate in extracurricular activities and to take in cultural attractions and events. In 2009, the Pritzker School of Medicine began rolling out a reorganized curriculum, known as the Pritzker Initiative. This curriculum emphasizes active learning, integration among the clinical and basic sciences, and scholarship and discovery. Building on Pritzker's legacy of producing research scholars, the curriculum also includes a Scholarship and Discovery thread which requires the completion of a mentored scholarly project.

THE UNIVERSITY OF CHICAGO MEDICINE

The University of Chicago Medicine, which includes the Center for Care and Discovery, plus Comer Children's Hospital, Bernard A. Mitchell Hospital and the Duchossois Center for Advanced Medicine, serves as the teaching facility for the Pritzker School of Medicine.

The medical center is a leader in research and treatment of disorders such as cancer, gastrointestinal disease, diabetes, lung disease, heart disease, neurological disorders, musculoskeletal disorders and others. It houses more than 100 specialty clinics and provides medical care during more than 500,000 in-hospital, outpatient and emergency room visits a year.

University of Chicago Medicine currently has more than 800 physicians and 1,600 nurses, as well as more than 900 residents and fellows (physicians working in advanced specialty training in medical science, leading to specialty board certification). It is a major provider of health care for the immediate neighborhood of more than 700,000 people, and has engaged in a long-term effort to construct a more rational collaborative system of doctors' offices, clinics, community hospitals and academic centers to provide care for all the people who live on the South Side of Chicago. Community-based training opportunities include relationships with nearby physicians and hospitals, and an academic affiliation with the NorthShore University Health System, which includes three suburban hospitals. It has regional burn and perinatal units. Clinical experiences are also offered at LaRabida Children's Hospital (<https://larabida.org>) and Lake Shore HealthCare Rehabilitation Centre (<http://lakeshorehrc.com>).

Please visit <http://pritzker.uchicago.edu> for complete information on our curriculum, our initiatives, and application instructions.

NORTHSHORE UNIVERSITY HEALTH SYSTEM

Headquartered in Evanston, Ill., NorthShore University HealthSystem (NorthShore) is a comprehensive, fully integrated, healthcare delivery system that serves the greater North Shore and northern Illinois communities. The system includes four Hospitals – Evanston Hospital, Glenbrook Hospital, Highland Park Hospital and Skokie Hospital. In addition, the health system has more than 2,400 affiliated physicians, including a 600-physician, multispecialty physician group practice with over 70 office locations - NorthShore University HealthSystem Medical Group. Further, NorthShore is committed to excellence in its academic mission and supports teaching and research as the principal teaching affiliate for the University of Chicago Pritzker School of Medicine.

The NorthShore University HealthSystem Research Institute focuses on clinical and translational research, including leadership in outcomes research and clinical trials.

The HealthSystem has significant capabilities in a wide spectrum of clinical programs, including neurosciences, cancer, heart, orthopaedics, high-risk maternity and pediatrics. NorthShore is a national leader in the implementation of innovative technologies, including electronic medical records, (EMR). In 2003, the HealthSystem was among the first in the country to successfully launch a system wide EMR with demonstrable benefits in quality, safety and service to patients. NorthShore has been recognized by multiple national organizations for this notable achievement.

COMBINED MD/PHD PROGRAMS IN THE DIVISION OF THE BIOLOGICAL SCIENCES AND PRITZKER SCHOOL OF MEDICINE

The University of Chicago's Pritzker School of Medicine has an exceptionally rich tradition of interdisciplinary scholarship. Each year, typically 15 to 20 percent of the graduating medical school class also graduates with a PhD. In the spirit of this tradition, the Pritzker School of Medicine offers a wide selection of joint degree programs for individuals interested in the critical interface of medicine, biological sciences, and society.

Students interested in combining clinical and biomedical research can combine their MD training with education toward a PhD in one of the degree granting units (see section on Basic Sciences) within the Biological Sciences Division. The Pritzker School of Medicine is also home to several highly competitive and award winning NIH funded MD/PhD training programs including the Medical Scientist Training Program (MSTP) and the Growth, Development and Disabilities Training Program (GDDTP). Students interested in pursuing a PhD degree in the Humanities or Social Sciences can do so as part of a unique MD-PhD program in Medicine, Social Sciences and Humanities (MESH). Students may also graduate with additional master degrees in business, law or policy.

For further information about this program, please visit: <http://pritzker.uchicago.edu/page/joint-degrees>

MEDICAL SCIENTIST TRAINING PROGRAM

The University of Chicago Medical Scientist Training Program is a challenging interdisciplinary training program in biomedical sciences which leads to an MD from the Pritzker School of Medicine and to a PhD in the Interdisciplinary Scientist Training Program (ISTP). Our trainees graduate prepared to assume successful leadership roles in the evolving world of 21st century academic biomedicine. Being one of the earliest programs to obtain federal funding in 1967, the MSTP at the University of Chicago is currently one of the longest running in the country.

The MD is awarded through the Pritzker School of Medicine, one of the top 10 graduate schools in the nation. With the introduction of the Pritzker Initiative in Autumn 2009, students will be educated in smaller classes with more individual attention from faculty, with an emphasis on active learning and scholarship, will be integrated among disciplines when possible, and in an atmosphere that highlights the relationship between basic and clinical sciences.

For their graduate work, trainees will be part of the ISTP, the degree-granting arm of the MSTP. This program is a novel, adaptable mechanism for students to obtain highly-integrated, interdisciplinary training. Trainees will be part of a flexible PhD program that offers superb educational opportunities and rigorous training in the highly integrated environment of Chicago Biomedicine at the University of Chicago. The ISTP also provides a programmatic identity that fosters a seamless progression of our students through the medical and graduate phases of their training.

The program is designed for students who seek broad careers in biomedical related research and a desire to apply both clinical and research expertise to solve the most pressing problems in medical science. Typically students begin their full-time PhD research after completion of their first year of medical studies and return to medical school after they have successfully defended their PhD thesis. On average, MSTP trainees complete both degrees in 8 years.

For further information about this program, please visit: <http://pritzker.uchicago.edu/page/mstp-medical-scientist-training-program>

GROWTH, DEVELOPMENT AND DISABILITIES TRAINING PROGRAM

The Growth, Development and Disabilities Training Program (GDDTP) is a unique opportunity available to University of Chicago medical students who decide to pursue an advanced PhD degree after they have started medical school. The program began over 40 years ago and in 2003 received the first NICHD Mentor Award for Excellence in Research Training.

Entry into the program is available for students who have completed two years (occasionally one year) of medical studies. Students wishing to be considered for the program generally acquire relevant laboratory experience, fulfill at least some graduate courses requirements and seek out a research sponsor and graduate degree unit during their first two years of medical studies, in anticipation of their application to the program.

The program is unique in that it offers medical students the opportunity to pursue a PhD degree after they have started medical school. This represents a major opportunity for students at the Pritzker School of Medicine, who frequently become so enthusiastic about research during their first or second year of medical school that they decide to take a leave from medical studies to pursue a PhD degree. A wide variety of PhD degree granting units is available to trainees, most often in the Biological Sciences Division.

Students interested in the program may submit formal applications in the winter quarter of their first or second year of medical studies. When all necessary supporting material, including transcripts and letters of recommendation, is received, the students undergo two formal interviews. Decisions are announced in the

spring, with appointment to the grant in July. Demonstrated interest and commitment to basic research, as evidenced by prior experience and accomplishment, as well as strong academic record, are major criteria for selection.

Trainees in the program receive a maximum of five years of support which generally includes three years of support during the PhD phase and the remainder of the MD training (the two clinical years). Financial aid covers full tuition, fees and a stipend supplemented to national competitive levels to support living expenses.

For further information about this program, please visit: <http://pritzker.uchicago.edu/page/growth-development-and-disabilities-training-program>

MD-PHD PROGRAM IN MEDICINE, SOCIAL SCIENCES AND HUMANITIES (MESH)

The program is based on the premise that physicians should acquire special competence in another area of scholarship in order to address the overlapping social, economic, scientific, ethical, legal and humanistic problems which medicine as an enterprise, and as a profession, faces today.

Doctoral studies may be pursued in any of the departments within the social sciences (including Anthropology, Economics, History, Philosophy, Political Science, Psychology or Sociology) or humanities, in the Committee on Social Thought or the Conceptual and Historical Studies of Science Division, or the schools of divinity or public policy. Research may also be conducted through the Center for Health and the Social Sciences, the Morris Fishbein Center for the Study of the History and Science of Medicine, or the MacLean Center for Clinical Medical Ethics. Following completion of their doctoral studies, students in the program are expected to return to medical school to resume work toward the MD degree.

For further information about this program, please visit: <http://pritzker.uchicago.edu/page/md-phd-programs-medicine-social-sciences-and-humanities>



THE DIVISION OF THE HUMANITIES

Dean

- Anne W. Robertson

Dean of Students

- Martina Munsters

Students in the Division of the Humanities investigate the varied achievements of the human mind in language and literature, music, the visual arts, and philosophy. These investigations can range from the methods of the established humanistic disciplines to the newer alliances of humanities and social sciences, from the history of a civilization to the philosophy of science, from the aesthetics of a literary genre to the broader cultural occasions that bring the visual arts into contact with linguistic theory or musicology into contact with anthropology. The division regards a multiplicity of questions and approaches as the hallmark of its intellectual life and encourages its students to share in this diversity.

The academic units of the division guide and support the students' scholarly interests and inquiry and are correspondingly varied. These programs of study are described in detail in this section of the Announcements.

The University is known for its interdisciplinary approach. Students cross disciplines easily by taking courses in different fields as well as through participation in Graduate Workshops, established under the auspices of the Council on Advanced Studies. These interdisciplinary workshops bring together students and faculty in the Divinity School, the Division of the Humanities, and the Division of Social Sciences for ongoing and collaborative exchange of ideas around particular areas of interest. Interdisciplinary work also takes place in many different venues such as the Centers for Area Studies, Interdisciplinary Centers, and Interdisciplinary Programs. The interdisciplinary and area centers are described in another section of these Announcements.

ADMISSION TO THE DIVISION

The Division of the Humanities invites applications from students whose breadth of academic experience and fitness for the specific field of study suggest the potential for scholarly achievement. In general, only applicants holding the bachelors degree or equivalent, with excellent academic records, are admitted. Faculty recommendations and the applicant's statement of purpose are carefully weighed. Research papers, publications, and other works may also be considered by the admissions committees during their evaluations. The admissions selection committee for each department reviews all the applications submitted by the deadline for admission for autumn quarter of the following year. During this selection, all available places and financial aid are allocated for the following academic year. An offer of admission is made only for the next academic year and cannot be deferred.



MASTER OF ARTS PROGRAM IN THE HUMANITIES

Director

- Hilary Strang, Lecturer, English Language and Literature

OVERVIEW

The Master of Arts Program in the Humanities (MAPH) is an intensive one-year interdisciplinary program leading to the A.M. degree. MAPH is designed to address the diverse needs and interests of intellectual generalists and specialists who may benefit from a year of intensive work in the humanities. Many MAPH students are recent college graduates. Others are professionals at mid-career, freelance writers, or performers. They hold undergraduate degrees from public and private institutions throughout the world in disciplines ranging from biology to English to marketing. Others come with extensive experience in non-academic fields, including independent film-making, politics, science, non-profit work, and business.

Many students in MAPH plan to continue their studies at the doctoral level in preparation for a career in teaching and research. For these students, MAPH provides an ideal setting for clarifying their academic and professional goals and offers a year of intensive preparation for competitive Ph.D. programs.

MAPH's emphasis on critical writing, analytical thinking, scholarly research, and flexible cultural perspectives is invaluable for students interested in careers at cultural institutions, in publishing, journalism, business, politics, secondary and community college teaching, or the full spectrum of the nonprofit sector.

DEGREE REQUIREMENTS

Requirements for the degree include:

- The fall quarter MAPH Core Course, Foundations of Interpretive Theory (known to MAPH students as "Core"). Core begins two weeks before regular University classes and covers seminal works by thinkers such as Freud, Lacan, and Marx. It is taught by the MAPH Faculty Director and Deputy Director and may include guest lectures by distinguished faculty members from different disciplines. The course is designed to give MAPH students a shared base for their further study.
- Seven elective courses chosen from the Division of the Humanities, Social Sciences, or the other divisions and professional schools. The choice of these courses is left largely to the student, although a program of study will be designed in consultation with and approved by the student's preceptor and other faculty advisers. Some students concentrate their courses in one field of study; others take a wide-ranging variety of courses in multiple disciplines. Most programs of study fall somewhere in between these two extremes.
- A master's thesis of 25 to 35 pages, produced under the supervision of a faculty thesis adviser and a preceptor, and completed toward the end of the spring quarter. In conjunction with thesis preparation, students take a thesis workshop, which involves small group meetings focused on the development of thesis topics and the writing of the thesis. MAPH thesis projects range from traditional research papers to creative works accompanied by a critical assessment.

TWO-YEAR LANGUAGE OPTION

MAPH offers students the option to intensively study language over the course of two academic years and three summers through the Two-Year Language Option (TLO). TLO students complete the traditional MAPH curriculum during their first academic year, but must also take one language course at the intermediate or advanced level each quarter. During the second year, students take nine courses, six of which must be continued language study. Students have the option to take courses through the Summer Language Institute or to study abroad for three summers -- the summer before the program begins, the summer between the first and second academic year, and the summer following the second academic year.

PRECEPTORS

Preceptors are advanced graduate students or recent Ph.D. graduates who oversee the progress of 10-12 MAPH students. Each student is assigned a preceptor for the academic year. In addition to serving as a general adviser, the preceptor leads small discussion groups in connection with the Core course and leads the winter and spring thesis workshops. Preceptors also may teach courses in the winter and spring quarters specially designed for MAPH students.

ADMISSION

Applicants to MAPH must meet the general divisional requirements for admission and must submit a critical writing sample of no more than 15 pages. Students applying to the MAPH Creative Writing Option must also submit a substantial creative writing sample in their chosen genre (e.g., several poems, a short story, a chapter from a work of longer fiction in progress, a play, or a 10-15 page work of creative nonfiction).

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions>.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Current minimum scores, etc., are provided with the application. For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu>, or call them at (773) 702-7752.

CONTACT INFORMATION

maph.uchicago.edu
ma-humanities@uchicago.edu
 (773) 834-1201

MAPH COURSES

MAPH 30100. Foundations of Interpretive Theory. 100 Units.

The MAPH Core Course, Foundations of Interpretive Theory, begins two weeks before regular University classes and covers seminal works by thinkers such as Freud, Lacan, and Marx. It is taught by the MAPH Director and Deputy Director and may include guest lectures by distinguished faculty members from different disciplines. The course is designed to give MAPH students a shared base for their further study.
 Equivalent Course(s): ENGL 34100

MAPH 30200. Thesis Writing Workshop A. 000 Units.

MAPH students begin work on their MA thesis.
 Terms Offered: Autumn Spring Summer Winter

MAPH 30400. Thesis Writing Workshop B. 100 Units.

MAPH students complete their MA thesis.
 Terms Offered: Autumn Spring Summer Winter

MAPH 39900. Independent Study: MAPH. 100 Units.

Independent reading and research course; regular meetings with a faculty supervisor required.

MAPH 30300. Prep of M.A. Thesis: MAPH. 100 Units.

Preparation of MA thesis is a course only offered if a student has a special research component related to the thesis. It is very rarely used and there is no standing course description because it will vary with the student.

MAPH 34800. Poetics. 100 Units.

In this course, we will study poetry 'in the abstract', through the various efforts on the part of philosophers, literary critics and poets themselves to formulate theories of poetic discourse. We will examine a range of historical attempts to conceptualize poetry as a particular kind of language practice, starting from German Romanticism. We will also question the very project of thinking about "poetics" as opposed to "poetry" or "poems." Is it possible to theorize the art form without doing violence to the particularity - and peculiarity - of individual poems? Contemporary debates between historical, philosophical and activist poetics will be used as an entryway to our seminars and collective readings. (18th/19th, 20th/21st).

Instructor(s): John Wilkinson Terms Offered: Autumn
 Equivalent Course(s): ENGL 34800

MAPH 31414. MAPH Core Course: Contemporary Analytic Philosophy. 100 Units.

This course is designed to provide MAPH students with an introduction to some recent and ongoing debates between philosophers working in the analytic tradition. The course is, however, neither a history nor an overview of analytic philosophy. Instead, we will focus on three different debates, spending about three weeks on each, with topics selected from the general areas of epistemology, metaphysics, and ethics.

Instructor(s): M. Kremer Terms Offered: Autumn
 Prerequisite(s): This course is open only to MAPH students. MAPH students who wish to apply to Ph.D. programs in philosophy are strongly urged to take this course.
 Equivalent Course(s): PHIL 31414

MAPH 33000. Methods and Issues in Cinema Studies. 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard.

Instructor(s): S.Skvirsky Terms Offered: Autumn

Equivalent Course(s): CMST 40000, ARTH 39900, ENGL 48000

MAPH 33600. History of International Cinema I: Silent Era. 100 Units.

This course provides a survey of the history of cinema from its emergence in the mid-1890s to the transition to sound in the late 1920s. We will examine the cinema as a set of aesthetic, social, technological, national, cultural, and industrial practices as they were exercised and developed during this 30-year span. Especially important for our examination will be the exchange of film techniques, practices, and cultures in an international context. We will also pursue questions related to the historiography of the cinema, and examine early attempts to theorize and account for the cinema as an artistic and social phenomenon.

Instructor(s): A.Field Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): CMST 28500, ARTH 38500, CMLT 22400, MAAD 18500, ARTV 20002, ENGL 48700, CMLT 32400, ARTH 28500, ENGL 29300, CMST 48500

MAPH 33700. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): CMLT 32500, CMST 28600, CMST 48600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, ENGL 48900, MAAD 18600, REES 45005

MAPH 36500. Advanced Theories of Gender and Sexuality. 100 Units.

This interdisciplinary seminar-style course will focus on debates within contemporary queer and feminist theory, but the implications impact beyond concepts, with implications for building worlds. We will begin by engaging diverging genealogies of the study of sexual identity, focusing on those developed from within affect theory and theories of performativity. The second half of the quarter will focus on varieties of precarity, examined within their social and political constellations. Generally, our aim will be to engage scenes and concepts central to the interdisciplinary study of gender and sexuality; to provide familiarity with key theoretical anchors for that study; to provide skills for deriving the theoretical bases of any kind of method; to examine inconvenient cases; to question our obligations to the "classics" of gender and sexuality theory; and to explore innovative pedagogies. In addition, aesthetic objects will be brought into contact with theoretical works, such as those by Gayle Rubin, Hortense Spillers, Gayatri Spivak, Paul B. Preciado, Mel Chen, Eve Sedgwick, Judith Butler, and Saidiya Hartman.

Instructor(s): Lauren Berlant Terms Offered: Winter

Equivalent Course(s): ENGL 30201, PLSC 31410, GNSE 21400, GNSE 31400, ENGL 21401, PLSC 21410

MAPH 40130. Gender, Capital, and Desire: Jane Austen and Critical Interpretation. 100 Units.

Today, Jane Austen is one of the most famous (perhaps the most famous), most widely read, and most beloved of eighteenth- and nineteenth-century British novelists. In the two hundred years since her authorial career, her novels have spawned countless imitations, homages, parodies, films, and miniseries - not to mention a thriving "Janeite" fan culture. For just as long, her novels have been the objects of sustained attention by literary critics, theorists, and historians. This course will offer an in-depth examination of Austen, her literary corpus, and her cultural reception as well as a graduate-level introduction to several important schools of critical and theoretical methodology. We will read all six of Austen's completed novels in addition to criticism spanning feminism, historicism, Marxism, queer studies, postcolonialism, and psychoanalysis. Readings may include Shoshana Felman, Frances Ferguson, William Galperin, Deidre Lynch, D.A. Miller, Edward Said, Eve Sedgwick, and Raymond Williams.

Instructor(s): Tristan Schweiger Terms Offered: Autumn

MAPH 41300. Our biopolitics, ourselves: feminist science fiction. 100 Units.

1970s feminist theory made a significant conceptual move in provisionally bracketing off biological sex from the historical/cultural work of gender. Feminist science fiction (in contrast), in its brief flourishing in the 70s and early 80s, finds its utopian moments in the biological, in genetic manipulation, reproductive technology, ecological forms of being and new bodies of a variety of kinds. This class will read science fiction, feminist theory and current critical work that concerns itself with biopolitics in order to ask questions about the divide between nature and culture, what's entailed in imagining the future, what gender and genre might have to do with each other, and just what science fiction is and does anyway. Authors include: Le Guin, Russ, Butler, Piercy, Haraway, Rubin, Firestone.

Instructor(s): Hilary Strang Terms Offered: Spring

Equivalent Course(s): ENGL 41310, GNSE 21310, ENGL 21310, GNSE 41300

MAPH 42002. Human Rights: Philosophical Foundations. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 21002, PHIL 31002, PHIL 21002, INRE 31602, HIST 29319, LLSO 21002, HIST 39319, HMRT 31002



MASTER OF ARTS IN LATIN AMERICAN STUDIES - HUMANITIES

Department Website: <http://clas.uchicago.edu>

Director

Brodwyn Fischer (<https://history.uchicago.edu/directory/brodwyn-fischer>), Department of History and the College

The Center for Latin American Studies (CLAS) offers a one-year Master of Arts program (<https://clas.uchicago.edu/academic-programs/MA-programs>) in Latin American and Caribbean Studies that provides individualized, interdisciplinary training for students who plan to pursue career paths for which an MA is advantageous and students who plan to move on to doctoral programs in related fields. Students benefit from various resources that put the University of Chicago at the forefront of research and scholarship on Latin America, including world renowned faculty, top quality library resources, graduate workshops, and field research grant opportunities.

ADMISSION TO THE MASTER'S PROGRAM

Prospective students to the Master of Arts program in Latin American Studies may apply to the program through the Division of the Social Sciences or through the Division of the Humanities and will receive the degree from the division through which they have been admitted.

HOW TO APPLY

The application process for admission and financial aid for all graduate programs in is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online:

Division of the Humanities (<http://humanities.uchicago.edu/students/admissions/apply-now>)
Social Sciences Division (<https://apply-ssd.uchicago.edu/apply>)

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Current minimum scores, etc., are provided with the application. For more information, please see the Office of International Affairs website (<https://internationalaffairs.uchicago.edu/page/english-language-requirements>) or call them at (773) 702-7752.

Students who wish to earn a Ph.D. degree should apply to a degree program in one of the graduate departments or committees in the Division of the Humanities or the Division of the Social Sciences. International students are advised that completion of a master's degree program is generally not a prerequisite to entering a Ph.D. program.

PROGRAM REQUIREMENTS

Upon entering the program, students will work under academic direction of the CLAS Student Affairs Coordinator and the CLAS Lecturer to develop a specific program of study, cultivate their research interests, and identify a faculty adviser for their master's paper. The basic components of the master's program are described below.

LANGUAGE

A fundamental requirement of the program is proficiency in one of the spoken languages (other than English) of Latin America and the Caribbean. This requirement normally will be met in Spanish or Portuguese. However, substitution of an Amerindian language (such as Aymara, K'iche' Maya, or Yucatec Maya) or a language spoken in the Caribbean (such as Haitian Kreyol) is permissible with the approval of the program adviser. Petitions for substitution will be evaluated in light of the student's prior competency and curricular program and the adequacy of instructional resources in the substitute language. Advanced Proficiency Examinations will be administered to evaluate the entering student's language skills. Students usually meet the language requirement through the Advanced Proficiency Examination in Spanish or Portuguese.

MA students are eligible to participate in the Chicago Language Center's Summer Language Institute (<https://summerlanguages.uchicago.edu/page/about-sli>) in the summer prior to or following matriculation at the University.

COURSE REQUIREMENTS

The standard course requirement is nine quarter courses, to be met as follows:

THE MA PROSEMINAR IN LATIN AMERICAN STUDIES

Through the required common core of the master's program, LACS 40501 MA Proseminar, students gain an introduction to the variety of disciplinary approaches, discourses, and foci that fall under the large rubric of Latin American Studies. The Proseminar introduces students to specialists in the field at the University of Chicago and to the research in which they are involved. Led by the

CLAS lecturer, the Proseminar meets every week in the Autumn quarter and every other week during the Winter quarter. The Winter quarter helps students further focus their thesis projects and technical skills. Students receive a grade for the Proseminar at the end of Winter quarter.

THREE LATIN AMERICAN CONTENT COURSES

Each quarter CLAS compiles a list of courses University-wide with Latin American content. Courses that focus on disciplinary, methodological, or comparative topics may also be counted toward this requirement, provided the student completes a paper or other major project on a Latin American theme.

ONE COURSE ON PRE-20TH CENTURY LATIN AMERICA

Students are required to take one approved course whose subject matter addresses pre-twentieth-century Latin America. The recommended course is LACS 16200 Introduction to Latin American Civilization II but students may select another course based on their needs and interests. Students whose undergraduate transcripts indicate sufficient background from previous equivalent courses will be exempt from this requirement and will be allowed to take other LACS content courses instead.

ONE COURSE ON PRE-20TH CENTURY LATIN AMERICA

Students are required to take LACS 16300 Introduction to Latin American Civilization III. Students whose undergraduate transcripts indicate sufficient background from previous equivalent courses will be exempt from this course and will be allowed to take another approved LACS course on contemporary Latin America.

ONE METHODOLOGY COURSE

Students are required to take a minimum of one methodology course to supplement disciplinary knowledge, technical skills, or language skills. Courses may address a range of topics, from a GIS sequence to qualitative data analysis, ethnographic methods to historiography, Spanish for business to academic and professional writing. Student needs are assessed during admissions: applicant transcripts are reviewed and courses are recommended based on gaps in undergraduate education. CLAS works with departments who sponsor relevant courses to secure places in courses that fit individual student needs.

TWO ELECTIVE COURSES

These courses may, but are not required to, have Latin American content. They are often taken in order to gain a specific disciplinary grounding, explore a theoretical framework, or develop skills in a research methodology.

Credits towards the Master of Arts in Latin American Studies must be taken at the graduate level (courses designated as 30000 or above). However, certain lower level courses may be accepted, at the discretion of the program adviser. All course requirements can be met in three academic quarters.

COURSES

Courses pertinent to the Latin America are offered through the individual departments and committees of the Divisions of the Social Sciences and the Humanities, and through the University's professional schools. Please refer to the listings in these announcements and in the quarterly course schedules for specific offerings. Additionally, special courses are offered by senior visiting Latin Americanist faculty through the Center's Tinker Visiting Professorship. Each quarter the Center compiles a comprehensive list of Latin American and Caribbean courses to be offered at the University available on the CLAS (<https://clas.uchicago.edu>) webpage or through m (<https://classes.uchicago.edu>).

THE MASTER'S PAPER

Every master's degree candidate is required to submit a master's thesis paper. The paper uses theoretically informed analysis or interpretation to explore a significant problem, event, issue, process, relationship, or institution in Latin America and/or the Caribbean. The paper provides the opportunity to apply disciplined research skills and critical abilities to a specific topic of the student's choice. Students will develop a thesis topic and outline during the MA Proseminar. The research and writing of this paper will be conducted under the guidance of a faculty adviser and the CLAS Postdoctoral Lecturer. A student may register for the course LACS 40300 Master's Paper Preparation, which is arranged on an individual basis with the faculty adviser for the project. This course, while optional, may be counted as one of the five required Latin American Studies core courses.

FOR ADDITIONAL INFORMATION ABOUT THE MASTER OF ARTS IN LATIN AMERICAN STUDIES PROGRAM, PLEASE SEE VISIT THE CLAS WEBSITE ([HTTPS://CLAS.UCHICAGO.EDU](https://clas.uchicago.edu)) OR CONTACT CLAS STUDENT AFFAIRS COORDINATOR

Student Affairs Coordinator (Program Adviser)

Jamie Gentry

e-mail: jagentry@uchicago.edu

phone: 773.702.8420



MASTER OF ARTS IN MIDDLE EASTERN STUDIES - HUMANITIES

Director

- A. Holly Shissler

Deputy Director

- Orit Bashkin

Deputy Director for Academic Programs

- Paul E. Walker

Associate Director

- Thomas E.R. Maguire

Project Assistant

- Benjamin Chametzky

Outreach Coordinator and Director of the Middle East Education Initiative

- Alexander Barna

The Middle Eastern Studies faculty are listed at <http://cmes.uchicago.edu/>.

The Center for Middle Eastern Studies offers an interdisciplinary Master of Arts program designed for students who wish to use their knowledge of the Middle East in careers other than university teaching and research. The program is also suitable for students considering an academic career who have not had the appropriate academic background for direct entrance into a doctoral program. Language and area studies preparation may be supplemented by relevant course work in a professional school or department. Students may be admitted to the Master of Arts program in either the Division of the Social Sciences or the Humanities and will receive the degree from the division through which they have registered. Students with significant previous training in Middle Eastern or Islamic studies who wish to earn a doctoral degree leading to careers in research and college or university teaching should apply for admission directly to one of the graduate doctoral departments or committees of the University.

There are two tracks—modern and ancient—for the MA program in Middle Eastern Studies. The modern program covers the time period from the rise of Islam until the present. The ancient track, offered in collaboration with the faculty of the Department of Near Eastern Languages and Civilizations, focuses on the cultures and languages of the ancient Near East. The application process, degree requirements, and the rules and conditions for financial aid are similar for both programs.

ADMISSION

Applicants for the Master of Arts in Middle Eastern Studies are expected to meet the graduate admission requirements of the University and of the division to which they apply. In addition, applicants to the Middle Eastern Studies program must submit an academic writing sample. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Students must enter the program in the autumn quarter. Although the program is designed for full time students, applications from those who can attend only on a part time basis will be considered.

HOW TO APPLY THROUGH THE DIVISION OF HUMANITIES

The application process for admission and financial aid for all Humanities graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (<http://humanities.uchicago.edu/students/admissions/apply-now>).

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

PROGRAM REQUIREMENTS

The requirements are satisfactory completion of:

- Six quarters of a Middle Eastern (ancient or modern) language (through at least two year proficiency);
- One quarter core colloquium: Approaches to the Study of the Middle East, or Approaches to the Study of the Ancient Near East;

- Three quarters of an approved integrated Middle Eastern survey course.
- Seven courses in relevant electives;
- One course in thesis preparation, or reading and research;
- A master's thesis.

Only courses taken for a quality grade count toward fulfilling the requirements. No P or R grades will be accepted.

Elective courses may concentrate on one area or explore several of the fields of ancient or modern Middle Eastern studies such as, for example, Archaeology, Cuneiform Studies, Egyptology, Semitic linguistics, Arabic, Persian or Turkish literature, as well as related disciplines such as Art History, Anthropology, Classics, History, Linguistics, Political Science and Sociology.

LANGUAGE

Placement interviews will be given so that entering students may register for courses at the appropriate level of instruction. The languages offered include: Akkadian, Arabic, Armenian, Egyptian (Ancient), Hebrew (classical and modern), Hittite, Persian, Sumerian, Turkish, and Uzbek.

CORE COURSES

For the modern track MA, all students are required to take the core colloquium Approaches to the Study of Middle East (CMES 30001). Students must enroll in one of the following three quarter sequences: Islamic History & Society (NEHC 31000, 31100, 31200/HIST 35704, 35804, 35904), or Islamic Thought & Literature (NEHC 30601, 30602, 30603/ SOSC 22000, 22100, 2220). For the ancient track MA, students are required to take the core colloquium Approaches to the Study of the Ancient Near East and must enroll in the three quarter sequence: Ancient Near Eastern History & Society (NEHC 30001, 30002, 30003).

MASTER'S THESIS

Students are required to submit a master's thesis that should deal with a problem relevant to the student's intended career and should give evidence of the specialized disciplinary aspects of his or her training. The student's program adviser and a faculty member with special interest in the subject of the paper will guide the research and writing of the paper and judge whether it exhibits proof of competence in the field. During the writing of the paper, the student will register for a thesis preparation or reading and research course. The thesis title will be listed on the student's transcript.



COMMITTEE ON THEATER AND PERFORMANCE STUDIES

Chair

- David Levin, Departments of Germanic Studies and Cinema & Media Studies

Professors

- Philip Bohlman, Department of Music
- Thomas Christensen, Department of Music
- Martha Feldman, Department of Music
- Theaster Gates, Department of Visual Arts
- Tom Gunning, Departments of Cinema & Media Studies and Art History
- Elaine Hadley, Department of English Language & Literature
- Loren Kruger, Departments of English Language & Literature and Comparative Literature
- Larry Norman, Department of Romance Languages & Literatures
- Freddie Rokem, Wigeland Visiting Professor of Theater & Performance Studies
- Judith Zeitlin, Department of East Asian Languages & Civilizations

Associate Professors

- Berthold Hoeckner, Department of Music
- Matthew Jesse Jackson, Departments of Art History and Visual Arts
- Agnes Lugo-Ortiz, Department of Romance Languages & Literatures
- Ellen MacKay, Department of English Language & Literature
- Sarah Nooter, Department of Classics
- William Pope.L, Department of Visual Arts
- Steven Rings, Department of Music
- Catherine Sullivan, Department of Visual Arts
- Christopher Wild, Department of Germanic Studies

Assistant Professors

- Seth Brodsky, Department of Music
- Honey Crawford, Harper-Schmidt Fellow, Committee on TAPS
- Ariel Fox, Department of East Asian Languages & Civilizations
- John Muse, Department of English Language & Literature, Director of Graduate Studies
- Danielle Roper, Romance Languages and Literatures, Center for the Study of Race, Politics, and Culture
- Rocco Rubini, Department of Romance Languages & Literatures

Professors of Practice

- Leslie Buxbaum Danzig, Assistant Professor of Practice in Theater & Performance Studies, Director of Undergraduate Studies
- Annie Dorsen, Visiting Assistant Professor of Practice in Theater & Performance Studies

Postdoctoral Fellows

- Tina Post, Provost's Postdoctoral Fellow in English

Emeritus Faculty

- David Bevington, Departments of English Language & Literature and Comparative Literature
- Yuri Tsvivan, Departments of Art History, Cinema & Media Studies, Comparative Literature, and Slavic Languages & Literatures

Lecturers

- Kurtis Boetcher
- Heidi Coleman
- Devon de Mayo
- Shade Murray

- David New
- Pamela Pascoe
- Julia Rhoads

OVERVIEW

The PhD program in Theater & Performance Studies is a joint degree program that affords students rigorous and comparative work across two disciplines. Students develop a program of study within TAPS that reflects their particular training and interests, and pursue that program together with a degree from an affiliated department: Art History (<http://arthistory.uchicago.edu>), Cinema & Media Studies (<http://cms.uchicago.edu>), Classics (<http://classics.uchicago.edu>), East Asian Languages & Civilizations (<http://ealc.uchicago.edu>), English Language and Literature (<http://english.uchicago.edu>), Germanic Studies (<http://german.uchicago.edu>), Music (<http://music.uchicago.edu>), or Romance Languages & Literatures (<http://rll.uchicago.edu>). Students extend their curricular experience through the development of performance work and by engaging with nationally and internationally renowned artists. Students will graduate with a joint PhD in TAPS and an aligned discipline, attesting to multiple capacities and preparing them for professional possibilities within and beyond the academy.

The program consists of four main components: course work, the preparation of oral examinations, a joint PhD dissertation, and teaching. Compared to single degree programs, we expect the joint degree to involve up to an additional year of coursework.

The TAPS program option in the Master of Arts Program in the Humanities (MAPH) (<http://maph.uchicago.edu/theater-and-performance-studies-option>) offers a concentrated introduction to the comparative aspirations and rigorous expectations of TAPS at the University of Chicago. For more information about the TAPS option in the Master of Arts Program in the Humanities (MAPH), including details about admissions and aid, visit the program's website (<http://maph.uchicago.edu>).

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students cannot receive a stand-alone PhD in TAPS. Rather, they enter through another department and pursue their degree jointly with that other discipline. Degree requirements for the combined degree in TAPS will of necessity vary slightly from student to student in order to accommodate the requirements of the participating entry department, but every student is required to complete the following minimum requirements. Each student will take a total of 12 courses toward the TAPS degree, typically by the end of the third year. The coursework in TAPS will include:

1. A two-course graduate sequence in the History and Theory of Theater and Performance, designed to provide a rigorous introduction to advanced study in the discipline.
2. Three TAPS-related seminars within the entry department, to be determined in consultation with the Chair of TAPS.
3. Five courses outside the entry department.
 - Three courses in theater or performance practice (e.g., advanced acting, directing, set design, choreography, etc.).
 - Two seminars, selected in consultation with the Chair of TAPS that complement the student's disciplinary training.
4. Two-Term qualifying paper and/or performance project, to be developed in consultation with a faculty member in TAPS and a second faculty advisor from the entry department. The qualifying paper and/or performance project are typically undertaken during the fall and winter quarters of the student's fourth year. This work is typically accommodated in two independent research courses that count toward the 12 courses for the degree..

In addition, students in TAPS will be expected to:

- Participate in the TAPS graduate workshop (<https://cas.uchicago.edu/workshops/theaterperformancestudies>). The TAPS workshop brings together students and faculty to discuss work in progress as well as current research in the wider field of Theater and Performance Studies.
- Complete one internship in theater or performance practice with a professional theater, dance, or performance company, either in Chicago or with national or international partners.

QUALIFYING EXAMINATION AND DISSERTATION PROPOSAL

Students are expected to complete the Qualifying Exam in TAPS at the outset of the fourth year and to prepare a dissertation proposal and assemble a dissertation committee by the end of the fourth year.

- The qualifying exam is an oral exam based on a reading list of 20–30 works and a brief thesis paper (5–10 pp.) summarizing key issues and concepts guiding the student's intellectual agenda. The exam provides an opportunity for the student to look back and lend coherence to his or her coursework and also to look

forward to the dissertation proposal and to the longer-term project of developing a profile as a scholar, artist, or scholar-artist.

- The dissertation proposal and dissertation committee should reflect the program's joint nature by including at least one faculty member from the Committee on TAPS. The exact structure of a student's dissertation proposal will be determined in consultation with the Director of Graduate Studies of the entry department. Ideally, the proposal should be approximately 15-20 pages in length and should detail three things: (1) the scholarly and artistic stakes of the project; (2) the methodologies to be employed; and (3) a detailed outline of the planned chapters and, if appropriate, the planned creative work. The proposal should be completed and defended one quarter after the Ph.D. exam (not counting the summer) and no later than the end of the fourth year. The dissertation should be completed no later than the end of the sixth year.

FELLOWSHIPS

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Pedagogical training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

PRACTICAL OPPORTUNITIES

TAPS offers students access to a strong network of professionals throughout the area. There are many opportunities to develop administrative skills and technical training, understand the inner workings of a theater or performance company, and forge substantial contacts in the arts community. Chicago's theater and performance scene is collaborative and inclusive. UChicago faculty and students have collaborated with a variety of partners on campus as well as companies throughout the greater Chicago area, including:

About Face Theatre (<http://aboutface theatre.com>)

Chicago Performance Lab (<https://arts.uchicago.edu/theater-and-performance-studies/uchicago-performance-lab>)

Court Theatre (<http://www.courttheatre.org>)

Doc Films (<http://docfilms.uchicago.edu/dev>)

Every House Has a Door (<http://www.everyhousehasadoor.org>)

First Floor Theater (<http://www.firstfloortheater.com>)

Goodman Theater (<https://www.goodmantheatre.org>)

The House Theatre (<http://www.thehousetheatre.com>)

Hubbard Street Dance (<http://www.hubbardstreetdance.com>)

The Hypocrites (<http://www.the-hypocrites.com>)

Joffrey Ballet (<http://www.joffrey.org>)

Lookingglass Theatre (<http://lookingglasstheatre.org>)

Lucky Plush Productions (<http://luckyplush.com>)

Manual Cinema (<http://manualcinema.com>)

Neo-Futurists (<http://neofuturists.org>)

Second City (<http://www.secondcity.com>)

Steppenwolf Theatre Company (<https://www.steppenwolf.org>)

Theater Oobleck (<http://www.theateroobleck.com>)

University Theater (<https://arts.uchicago.edu/theater-and-performance-studies/performance-groups/university-theater>)

Victory Gardens Theater (<http://victorygardens.org>)

Writers Theatre (<http://www.writerstheatre.org>)

FOREIGN LANGUAGE REQUIREMENT

Students must adhere to the Foreign Language Requirement of the entry department.

TEACHING REQUIREMENTS

Students in a joint degree program need to meet teaching requirements of their entry department. In conjunction with that requirement and in consultation with the Directors of Graduate Studies in the entry

department and TAPS, they are expected to teach two quarters of courses related to TAPS. This could take the form of teaching a section in the TAPS core, or a teaching assistantship or instructorship for a TAPS-related course in the entry department. Two annotated syllabi for courses in Theater and Performance Studies - one undergraduate, one graduate - will form part of the Ph.D. exam materials.

HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered by the Divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at <http://humanities.uchicago.edu/students/admissions>. Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Staff

- Kurtis Boetcher, Director of Design
- Ben Caracello, Technical Director
- Connor Ciesil, Audio Manager
- Ari Craven, Marketing Coordinator/Graphic Designer
- Brian Maschka, Production Manager
- Neel McNeill, Managing Director
- Andrew Meyers, Lighting Manager
- Jenny Pinson, Props Manager
- Samantha Rausch, TAPS North Theater Manager
- Nathan R. Rohrer, Costume Shop Manager
- Tiffany Trent, Interim Director of Performance Programs
- Vicki Walden, Academic Administrator

Website: <https://arts.uchicago.edu/theater-and-performance-studies>

THEATER AND PERFORMANCE STUDIES COURSES

TAPS 30710. Dramaturgy and Dramatic Criticism. 100 Units.

This course is an orientation and practicum in contemporary dramaturgy. After surveying Enlightenment treatises that occasioned Western dramaturgical practices, students will critically engage present-day writings that consider the objectives and ultimate *raison d'être* for the production dramaturg. Students then undertake dramaturgical research, exploring different methodologies and creative mind-sets for four representative performance genres: period plays; new plays; operas or musicals; and installations or performance art. Special attention will be given to cultivating skills for providing constructive feedback and practicing dramaturgy as an artistic collaborator and fellow creator. The class culminates in the design and compilation of a sourcebook for actors, directors, and designers, followed by a dramaturgical presentation intended for a professional rehearsal room.

Instructor(s): D. Matson Terms Offered: Winter

Note(s): Attendance at first class is mandatory.

Equivalent Course(s): ENGL 20710, TAPS 20700

TAPS 31510. Back Room Shakespeare: Practical Tactics For Acting in a Madhouse. 100 Units.

It's a mistake to lose sight of the fact that Shakespeare's theatre was a madhouse. This class will give you strong practical skills for performing in the style of those playhouses: under-rehearsed, deeply un-precious, in a constant dynamic relationship with your audience. Techniques will focus on personalizing the plays, delivering them with clarity and force to a modern audience - not on 'doing it right'. Our time will be spent primarily on hands-on exercises and scene work. Materials will include the instructor's book about the Back Room Shakespeare Project, *My Life with the Shakespeare Cult*. Course concludes with the presentation of a play for an invited audience. The cast will include a handful of working Chicago actors. Some on-stage experience recommended. No prior experience with Shakespeare necessary. Chips on shoulders about Shakespeare are welcome and helpful.

Instructor(s): Samuel Taylor Terms Offered: Winter

Note(s): Attendance at first class session is MANDATORY.

Equivalent Course(s): TAPS 21510

TAPS 31600. Acting Workshop. 100 Units.

This advanced acting course will prep you for the professional industry. The classes are based on the Meisner Technique and the Black Box Acting Studio Method. You will work on technique, auditions, and learn to consistently bring your full self to the table.

Terms Offered: TBD

Note(s): Attendance at first class meeting is mandatory.

Equivalent Course(s): TAPS 21600

TAPS 31715. A Physical Approach to Acting. 100 Units.

This course offers students a multi-faceted approach to making acting choices and tactics concrete, legible and dramatic-through physical training, adventurous scene work and developing a critical framework for understanding acting as a corporeal practice. The first half of each class will be dedicated to rigorous physical training building strength, extending range of motion, and developing skills, which may include head and handstands, juggling, balance, and basic tumbling. In the second half of each class, students will work on scenes with a focus on strong physical choices. Over the course of the quarter, students will research theater-makers and forms that approach physical theater in a variety of ways, and will attend one to two professional productions in Chicago.

Instructor(s): A. Danzig Terms Offered: Winter

Note(s): Course is open to undergraduate and graduate students. Instructor consent required. To apply, submit writing through online form at tapscourses.uchicago.edu; see course description. Once given consent, attendance on the first day is mandatory. Questions: cbesse@uchicago.edu

Equivalent Course(s): TAPS 21715

TAPS 32110. Kafka and Performance. 100 Units.

This laboratory seminar is devoted to exploring the texts of Franz Kafka through the lens of performance. In addition to weekly scenic experiments and extensive critical readings (on Kafka as well as performance theory) we will explore the rich history of adapting Kafka in film, theater, puppetry, opera, and performance.

Equivalent Course(s): TAPS 22110, GRMN 23110, CMST 28310, GRMN 32110, CMST 38310, FNDL 22115

TAPS 32310. Performance Art Installations: Performing Diaspora. 100 Units.

We are living in an age of unprecedented movements and migrations of populations, some voluntary, many under extreme duress. The course will focus on the lives of those who have in one form or another lived through this great displacement. On the basis of material developed through our examinations and experimentations, we will create a performance installation piece. The "archive" for the piece will be drawn from a variety of sources: plays, essays, popular and social media, student-conducted interviews. Further material will be generated through acting exercises and our own work with video and visual arts.

Instructor(s): P. Pascoe Terms Offered: Winter

Note(s): This course is available only by Instructor Consent. Attendance at first class session is mandatory.

Equivalent Course(s): TAPS 22310

TAPS 32318. Music and Disability Studies. 100 Units.

This course studies the ways that attitudes toward disability are constructed within a cultural sphere. From the perspective of disability studies, bodies and minds have many kinds of differences, but what is considered "disability" is determined by culture, not given by nature. Music, as well as film, literature, visual art, theatre, and so on, participate in the complex process of constructing and modulating attitudes toward disability. In this course, we will examine the interaction of disability and music in several ways: composers and performers whose creative production is shaped by bodily difference and disability; opera and film characters who embody and stage disability for our consumption; and more abstractly, music whose formal, sonic unfolding seems to engage issues of disability, even in purely instrumental art-pour-l'art works. We will read from the disability studies literature that critiques and theorizes disability themes in literature, film, and visual art, as well as musicology, music theory, and ethnomusicology literature that shows how disability themes are crucial in music. In this interdisciplinary class, students will gain a much more intimate understanding of the ways that attitudes toward abilities and bodies are constructed in art works, as well as be able to think, analyze, critique, write, and create with this understanding in mind. It is not necessary to read music notation for this course.

Instructor(s): Jennifer Iverson Terms Offered: Spring, TBD

Equivalent Course(s): MUSI 32318, MUSI 22318, TAPS 22318

TAPS 32510. Performance of Non-Fiction. 100 Units.

In this studio course, students will create short non-fiction performances. Through practical assignments and critical readings, students will be introduced to practices in ethnography, documentary, and storytelling as they work alone and collaboratively on generating and staging non-theatrical source material. The course is co-taught by Leslie Danzig, a professional director of devised theater, and Emily Lansana, a professional storyteller and coach of Rebirth Poetry Ensemble.

Instructor(s): L. Danzig & E. Lansana Terms Offered: Spring

Note(s): Attendance at first class session is mandatory.

Equivalent Course(s): TAPS 22510

TAPS 32600. Chance in Performance. 100 Units.

The course will cover the historical, theoretical and practical issues surrounding the use of chance in artistic production, with an emphasis on how these techniques have been used in live performance. We begin with the historical avant-garde, particularly Dada and Duchamp, continue with mid-century experiments by Cage/Cunningham and Fluxus artists, and finish with contemporary work like "No Dice" of Nature Theatre of Oklahoma and "Algorithmic Noir" by Eve Sussman. By creating performance projects using, or responding to, the techniques studied, students will have an opportunity to develop their own critical and practice-based point of view.

Instructor(s): A. Dorsen Terms Offered: Spring

Note(s): Attendance at first class meeting is mandatory.

Equivalent Course(s): MAAD 16600, TAPS 22600

TAPS 33930. Fundamentals of Playwriting. 100 Units.

This workshop will explore the underlying mechanics that have made plays tick for the last 2,500 odd years, from Euripedes to Shakespeare to Büchner to Caryl Churchill, Susan Lori-Parks, and Annie Baker, etc. Students will be asked to shamelessly steal those playwrights' tricks and techniques (if they're found useful), and employ them in the creation of their own piece. Designed for playwrights at any level (beginning or advanced), the workshop's primary goals will be to develop a personal sense of what "works" on stage within the context of what's worked in the past, and to generate a one act play, start to finish.

Instructor(s): M. Maher Terms Offered: Autumn

Note(s): ATTENDANCE AT FIRST CLASS IS MANDATORY.

Equivalent Course(s): TAPS 23930

TAPS 33950. Latin American Women Perform. 100 Units.

This course examines the ways women from Latin America and the Caribbean wield performance art to engage their social realities and to engage questions of race, gender, and sexuality. How do women both produce and disidentify with constructs of womanhood on stage? How do they use performance to explore the ways histories of genocide, dictatorship, and imperialism shape constructs of gender? We examine the works of performance artists Congelada de Uva, Fomma, Regina Galindo, Nao Bustamante among others.

Instructor(s): D. Roper Terms Offered: Winter

Note(s): Taught in English. Basic knowledge or comprehension of Spanish is strongly recommended.

Equivalent Course(s): LACS 33950, GNSE 33950, SPAN 33950

TAPS 33980. Writing the Short, Short Play: Investigations in Micro-Drama. 100 Units.

Never in the history of western theater has brevity gotten so much attention. Festivals around the world are devoted to plays five minutes in length or less; perhaps the most revered playwright of the 20th century, Samuel Beckett, guided his career towards the writing of smaller and smaller works; Chicago's Neofuturists have profitably run their show of "thirty plays in sixty minutes" for over thirty years; Twitter accounts disseminate multiple two to three line scripts daily; and sketch comedy continues to evolve and thrive. This course will give an overview of the development of the very short play over the last one hundred and twenty years, but will primarily focus on the writing and development of same, asking students to complete - through workshop prompts - 20 to 30 scripts by end of quarter. A particular effort will be made to bring "traditional" elements of standard-length plays - character, arc, anagnorisis, pathos, backstory, etc - to these miniatures, to test and expand their assumed limitations.

Instructor(s): M. Maher Terms Offered: Spring

Note(s): Attendance at first class is mandatory.

Equivalent Course(s): TAPS 23980

TAPS 34410. Transmedia Puzzle Design & Performance. 100 Units.

This course will introduce students to the burgeoning field of immersive puzzle design. Students will develop, implement and playtest puzzles that are suited for a range of experiences: from the tabletop to the immersive, from online puzzle hunts to broad-scoped alternate reality games (ARG). Students in this course will work directly with master puzzler, Sandor Wiesz, the commissioner of The Mystery League.

Equivalent Course(s): MAAD 24410, TAPS 24410

TAPS 34415. Games & Performance. 100 Units.

This experimental course explores the emerging genre of "immersive performance," "alternate reality," and "transmedia" gaming. For all of their novelty, these games build on the narrative strategies of novels, the performative role-playing of theater, the branching techniques of electronic literature, the procedural qualities of videogames, and the team dynamics of sports. Throughout the quarter, we will approach new media theory through the history, aesthetics, and design of immersive games, while working in labs with three Chicago-area companies including The House Theater, Mystery League, and Humans vs. Zombies.

Instructor(s): H. Coleman Terms Offered: Winter

Note(s): Attendance at first class session is mandatory.

Equivalent Course(s): TAPS 24415, MAAD 24415

TAPS 34880. New Directions in Afro-Latin Performance. 100 Units.

This class engages contemporary conversations in the study of Afro-Latin performance and explores the work of emerging black performance artists across the hemisphere. Tracing performances of blackness from the Southern cone to the Caribbean, we will examine the ways blackness is wielded by the State and by black communities themselves in performance and visual art across the region. We ask: what is the relationship between race and theatricality? What work is blackness made to do in states organized around discourses of racial democracy and *mestizaje*? How are notions of diaspora constructed through performances of blackness? We take up these questions in our study of reggaetón, hip hop, samba, el baile de los negritos and examine the works of noted and upcoming black artists such as Victoria and Nicomedes Santa-Cruz, Carlos Martiel, Las Nietas de Nonó, and others.

Instructor(s): D. Roper Terms Offered: Autumn

Prerequisite(s): Knowledge of Spanish is recommended

Note(s): While the course will be taught in English, many of the performances and at least four of the readings will be in Spanish.

Equivalent Course(s): SPAN 35500

TAPS 34902. Performance Lab: Non-Fiction Sources. 100 Units.

How do you create a solo or group performance from sources other than a play? How do you build original performance out of personal stories, interviews, research, an historical or current event? What are the methods for collecting non-fictional material, learning about someone else's experience, uncovering the complexities of something that has occurred? And how does one compose that material into a staged event? This course explores what constitutes a story, the blurred boundaries between what's 'real' and what's 'fiction', the status of interpretation, the stakes of performing as oneself and as other people, and the ethics of turning lived experience into staged performance. Students will work individually and collaboratively on creating original performances based on topics of their choice, in addition to viewing live and recorded performances, reading essays and scripts, and meeting visiting artists.

Instructor(s): L. Danzig, E. Lansana Terms Offered: Spring

Note(s): Attendance at first class is mandatory.

Equivalent Course(s): TAPS 24902, HMRT 34902, ARTV 30212, HMRT 24902, ARTV 20212

TAPS 34903. Performance Lab: Devising Dance Theater. 100 Units.

This course offers an intensive laboratory setting in which to imagine and create movement-based performance from an interdisciplinary perspective. Weekly sessions include guided prompts to generate writing, choreography, and visual design for individual projects, along with group discussion and one-on-one mentorship from the instructor, an accomplished and nationally recognized choreographer and company director. This process-based course culminates in a performance during 10th week.

Instructor(s): J. Rhoads Terms Offered: Spring

Note(s): Attendance at first class session is mandatory. Instructor consent required. To apply, email jrhoads1@uchicago.edu detailing your interest and experience.

Equivalent Course(s): TAPS 24903

TAPS 35515. Contemporary Political Strategies in Performance. 100 Units.

The emphasis of the course is on strategies-in the words of curator Florian Malzacher, "artistic strategies in politics, and political strategies in art." In moments of political struggle, what can art DO, and what can it not? We will be combining case studies with theoretical background, examining strategies like occupation, participation, parafiction, 'technologies of care,' *détournement* and the art strike. Students will have the opportunity to put some of these approaches to the test by designing one or more local interventions according to the interests of the group.

Instructor(s): A. Dorsen Terms Offered: Spring

Equivalent Course(s): ARTV 30213, TAPS 25515, ARTV 20213, MAAD 24515

TAPS 35910. Racine. 100 Units.

Racine's tragedies are often considered the culminating achievement of French classicism. Most famous for his powerful re-imaginings of Greek myth (*Phèdre*, *Andromaque*), his tragic universe nevertheless ranged considerably wider, from ancient Jewish queens to a contemporary Ottoman harem. We will consider the roots (from Euripides to Corneille) of his theatrical practice as well as its immense influence on future writers (from Voltaire to Proust, Beckett, and Genet).

Instructor(s): L. Norman Terms Offered: Autumn

Prerequisite(s): At least one French literature course 21700 or higher.

Note(s): Taught in French. All work in French for students seeking French credit; written work may be in English for others.

Equivalent Course(s): TAPS 28476, FNDL 25910, FREN 25910, FREN 35910

TAPS 36100. Dance Composition. 100 Units.

When does movement become text? How do bodies combine with time, space, and energy to communicate ideas? In this workshop-formatted course, we explore these questions as we study and create dance. Students develop improvisational skills by exploring the dance principles of space, time, dynamics, and the process of abstraction. Through physical exercises, discussions, and readings, students learn how to initiate and develop movement ideas. Major dance works from many styles (e.g., ballet, modern, avant-garde) are viewed and analyzed, as students develop an understanding of choreographic forms. Students also develop a proficiency in the areas of observation and constructive criticism. The course culminates with a choreographic project.

Instructor(s): J. Rhoads Terms Offered: Autumn

Note(s): Attendance at first class meeting is mandatory.

Equivalent Course(s): TAPS 26100

TAPS 36215. Comedy Central 2: The Body's Genres. 100 Units.

The story of comedy from the classics on focuses on the comedic as a weapon, as play that disrupts communication, and as a scene of moral revelation. This course will take up those relations, but begins with the body. We will focus on the plastic, corporeal, affective, and psychodramatic dynamics of the comedic. So much so, in fact, that we're calling it a studio seminar: it will involve actively participating in exercises adapted from the somatic arts, contemporary dance, music, theatre and contemporary comedy and developing new ones. Recognizing that bodies are as much created by movement as engendering it, and recognizing that the comedic is a register for translating the impact of other bodies including the world's body, the course will partition "the body" into focal themes such as: scale/gesture, the vocal grotesque/irony, movement/interruption, trauma/repair, slapstick/satire, ritual/convention, spontaneity/improvisation; cognitive laughter/belly laughter. Readings will include texts by Linda Williams, Erving Goffman, J.L. Moreno, Elias Canetti, Moshe Feldenkrais, Steve Paxton, Mikhail Bakhtin, Mae West, Jerry Lewis and Fred Moten. Students will contribute their own choices to an exploration of individual performances by Buster Keaton, Louise Lasser, Eleo Pomare, Phyllis Diller, Jackie "Moms" Mabley, and Jerrod Carmichael.

Instructor(s): L. Berlant, C. Sullivan Terms Offered: Autumn

Equivalent Course(s): ARTV 36215, ENGL 36407

TAPS 36216. Imagining the Shtetl. 100 Units.

For many, Fiddler on the Roof has come to define the portrayal of Jewish life in pre-war Europe. Central to this has been an idealized vision of the market town known as "the shtetl." This course explores the construction, manipulation, and iterations of "the shtetl" across a variety of literary and visual texts, including works by the photographer Roman Vishniac, the Yiddish poet Moyshe Leyb-Halpern, the German modernist Joseph Roth, and the American novelist Jonathan Safran Foer. Reading texts by these authors and others, we will consider how ideas of Jewish "shtetl" life shift across genres and languages. We will also confront the difficult task of defining "the shtetl" as a communal space as well as interpreting how varieties of nostalgia manifest in these texts. Alongside these primary works, we will draw on critical work by Svetlana Boym, Dan Miron, and Jeffrey Shandler. All readings are in English. A section may be organized for reading sources in Yiddish.

Equivalent Course(s): GRMN 26216, TAPS 26216, CMLT 26216, CMLT 36216, GRMN 36216

TAPS 36217. Histoire du théâtre français de la Renaissance aux Lumières. 100 Units.

Entre le XVI^e et le XVIII^e siècle, le théâtre français connaît une période de remarquable effervescence. La tragédie renaît avec la Cléopâtre captive d'Étienne Jodelle (1553), la pastorale et la tragi-comédie connaissent une popularité sans précédent, la comédie est à jamais transformée par la représentation de L'école des femmes (1663), le théâtre lyrique et l'opéra-comique acquièrent leurs spécificités respectives et le drame bourgeois rencontre ses premiers succès. Ce cours d'Histoire du théâtre français de la Renaissance aux Lumières se propose d'examiner la poétique de chacun de ces genres dans le contexte des grands courants esthétiques de l'époque (humanisme, baroque et classicisme). Tout en soulignant que les pièces produites durant les trois siècles étudiés sont encore tributaires des sources antiques et médiévales, ce panorama montrera de quelle façon le génie de certains auteurs - ainsi que les querelles que suscite l'opposition morale et intellectuelle à l'art dramatique - contribue au développement d'un des spectacles les plus brillants et les plus acclamés d'Europe.

Instructor(s): J. Perrier-Chartrand Terms Offered: Spring

Note(s): Taught in French.

Equivalent Course(s): FREN 26217, FREN 36217, TAPS 26217

TAPS 36219. Domestic Tragedies. 100 Units.

From its inception in ancient Greece tragedy feeds on a transgression. The ideology and economy of kleos (glory) predicates that the male hero seeks the accumulation of excellence and prestige elsewhere, far from home on the battlefield, so that he can reap the fruits of his heroic labor in peace upon his return (nostos). Like Homer's *Odyssey*, in which its eponymous hero turns his home into a battlefield when he slays his wife's suitors, tragedy routinely violates the relegation of violence to a distant place by letting it back into the house (oikos). What makes these tragedies tragic, is then the return of violence into the home. The seminar will trace the contradictory double coding of the house/home in tragedy as a place of refuge and safety as well as a site of unthinkable, because familial violence. We will start by reading a few representative Greek tragedies alongside Aristotle's *Poetics*, and will have to skip over Early Modern theater (e.g. Shakespeare and Racine) in order to arrive at Bourgeois tragedy, which conceived itself programmatically as domestic. We will examine French examples of the genre (Diderot) as well their German counterparts (Lessing, Schiller, and), and continue with its latest flowering in Scandinavia (Ibsen, Strindberg). We will conclude with the Beckett's deconstruction of the domestic tragedy in his *Endgame*.

Instructor(s): Christopher Wild Terms Offered: Winter

Equivalent Course(s): GRMN 26219, TAPS 26219, CMLT 36219, GRMN 36219, CMLT 26219

TAPS 36250. Contemporary Dance Techniques. 100 Units.

This course is an overview of the formal practices and trends that shape dance as an evolving contemporary art form. Designed for students with minimal dance experience who want to broaden their dance knowledge and deepen their physical skills, the course draws from a range of contemporary dance techniques including modern, improvisation, Hip-Hop, choreography, and partnering techniques. Lectures, viewings, and discussion will support experiential practice components, and professional guest artists will address select topics.

ATTENDANCE AT FIRST CLASS IS MANDATORY.

Instructor(s): J. Rhoads Terms Offered: Winter

Equivalent Course(s): TAPS 26250

TAPS 36350. Wagner's "Ring" in Performance. 100 Units.

Offered in conjunction with Lyric Opera's production of "Siegfried", this course considers Richard Wagner's tetralogy "The Ring of the Nibelung" by examining its musical language, scenic terms, political aspirations, and production history. While we will consider "The Ring" in its entirety, we will focus on "Siegfried" complementing our readings and discussions with field-trips to rehearsals at Lyric Opera, seeking to understand the Chicago production in a broader context of stage productions prepared over the course of the past 50 years.

Instructor(s): David Levin, Steven Rings Terms Offered: Autumn

Prerequisite(s): No prerequisites

Note(s): An interest in one or more of the following is preferable: opera, musicology, German studies, theater & performance studies.

Equivalent Course(s): MUSI 25918, TAPS 26350, GRMN 29350, GRMN 39350, MUSI 35918

TAPS 36500. The Contemporary Sublime. 100 Units.

This class uses Annie Dorsen's upcoming performance project "The Great Outdoors" as a frame within which to explore contemporary notions of the sublime as both an aesthetic and a political imaginary. Our readings include a survey of the classic texts (Longinus, Burke, Kant) as well as modern and contemporary writers (Lyotard, Nye, Costa) as a way into formulating hypotheses about the position of the sublime in our hyper-linked and environmentally fragile era. Practice-based experiments and exercises will respond to the readings, offering an opportunity to test ideas against their applications.

Instructor(s): A. Dorsen

Note(s): Attendance at first class meeting is mandatory.

Equivalent Course(s): TAPS 26500

TAPS 36519. Richard Wagner's Ring of the Nibelung in Performance. 100 Units.

This seminar, open to undergraduates and beginning graduate students, serves as a critical introduction to and intensive exploration of Richard Wagner's 19th century tetralogy. In addition to critical readings (e.g., by Wagner, Adorno, Nietzsche, Badiou, Dahlhaus, et al.) and screenings of a host of productions, we will travel downtown to Lyric Opera to attend performances of the Ring cycle in David Pountney's new production. Our discussions of the Chicago production will be supplemented by conversations with members of the Lyric Opera production team, including Anthony Freud, Lyric Opera's General Director. No previous knowledge is required although a curiosity about opera, German culture, media history, and/or theater & performance studies will be essential.

Instructor(s): David Levin Terms Offered: Spring

Equivalent Course(s): MUSI 24520, FNDL 23419, GRMN 23419, TAPS 26519, MUSI 32520, CMST 32119, CMST 22119, GRMN 33419

TAPS 37610. Engineering Shadow Puppetry. 100 Units.

This course will begin with historical research of shadow puppetry and directed design exploration, using both scripting and visual story-boarding to get your concept ready for production. We will then create scenery and visual environments while learning to bring shadow characters to life with movement, sound, and advanced manipulation techniques. We will also learn methods for crafting puppets from durable materials and will utilize mechanisms such as hinges and rivets. Students will be expected to work on projects outside of class time.

Instructor(s): F. Maugeri Terms Offered: Autumn

Note(s): Attendance at first class session is mandatory.

Equivalent Course(s): TAPS 27610

TAPS 38320. The Mind as Stage: Podcasting. 100 Units.

Audio storytelling insinuates itself into the day-to-day unlike other narrative forms. People listen to podcasts while they do the dishes, drive to work, or walk the dog. This hands-on course will explore the unique opportunities that this intimate relationship with an audience affords the storyteller. Documentary techniques and practices will form the basis of the course, with assignments from audio fiction and non-fiction, oral history, documentary theater, and comedy. Students will complete several short audio exercises and one larger podcast project.

Instructor(s): S. Geis Terms Offered: Winter

Note(s): Attendance at first class session is mandatory.

Equivalent Course(s): TAPS 28320, MAAD 23820

TAPS 38350. Dance & Theater in Real-Time: Performing Presence and Liveness. 100 Units.

Presence is a fundamental yet highly debated subject within numerous fields of study, complicated by questions about authenticity, identity, authority, and self-awareness. In the context of live performance, presence implies relationship to others, location, space, and time, among others. In this course, students will engage in both seminar and studio-based work to consider the phenomenology of presence within the fields of dance, theater, and performance. Coursework considers the relationship between presence and liveness, how presence is impacted by theatrical containers such as choreography, script, or structured improvisation, and the relationship of "co-presence" between audience and performer, among other topics. Attendance at first class is mandatory.

Instructor(s): J. Rhoads Terms Offered: Spring

Equivalent Course(s): TAPS 28350

TAPS 38421. Theater for Social Change. 100 Units.

Augusto Boal argues that theatre is "rehearsal for the revolution." Boal's Theatre of the Oppressed provides key strategies for collaboratively crafting dramatic narrative. These strategies challenge the conventional Aristotelian structure that privileges a single protagonist and subordinates other stories. Instead, Boal structures a poetics in which the "spect-actor" contributes their voice. Students will engage in devising and embodiment exercises in Image Theatre, Newspaper Theatre, Forum Theatre, and more, by interpreting texts, (e.g., religious texts, constitutional documents, or political manifestos), interrogating current events, exploring public narratives, and valuing diverse learning styles. Students will contextualize destinations for the course material according to the aesthetic and academic questions that they bring into the classroom. To consider ethical concerns surrounding participatory theatre, we will examine arts groups past and present that employ the techniques of the Theatre of the Oppressed. Readings include Boal, Freire, Jan Cohen-Cruz, Michael Rohd, bell hooks, and Knight and Schwarzman.

Instructor(s): T. Trent Terms Offered: Spring

Note(s): Attendance at first class is mandatory

Equivalent Course(s): TAPS 28421, CRES 28421

TAPS 38479. Theater and Performance in Latin America. 100 Units.

What is performance? How has it been used in Latin America and the Caribbean? This course is an introduction to theatre and performance in Latin America and the Caribbean that will examine the intersection of performance and social life. While we will place particular emphasis on performance art, we will examine some theatrical works. We ask: how have embodied practice, theatre and visual art been used to negotiate ideologies of race, gender and sexuality? What is the role of performance in relation to systems of power? How has it negotiated dictatorship, military rule, and social memory? Ultimately, the aim of this course is to give students an overview of Latin American performance including blackface performance, indigenous performance, as well as performance and activism.

Instructor(s): D. Roper Terms Offered: Winter

Prerequisite(s): Undergraduates must be in their third or fourth year

Note(s): Taught in English.

Equivalent Course(s): GNSE 29117, CRES 39117, LACS 29117, LACS 39117, GNSE 39117, TAPS 28479, SPAN 39117, CRES 29117, SPAN 29117

TAPS 38702. Italian Comic Theater. 100 Units.

A survey of the history of Italian theater from the Erudite Renaissance Comedy to Goldoni's reform. We will pay particular attention to the tradition of commedia dell'arte (scenarios, stock characters, and plot formation), ancient and medieval influences, evolution and emancipation of female characters, and the question of language. Readings include works by Plautus, Ariosto, Machiavelli, Angelo Beolco (Ruzante), Flaminio Scala, and Goldoni. Toward the end of the course we will consider the legacy of Italian Comedy in relation to the birth of grotesque and realist drama in Pirandello.

Instructor(s): R. Rubini Terms Offered: Winter

Note(s): Taught in English.

Equivalent Course(s): ITAL 38702, TAPS 28702, ITAL 28702

TAPS 41401. Opera Film: China / Europe: Thinking Media Hybridity across Cases. 100 Units.

This seminar will explore the mutual attraction of cinema and opera across the two vast operatic cultures of Europe and China in order to interrogate the many cross-cultural issues that their media encounters produce and accentuate. Such issues include changing relations to myth, ritual, history, and politics; cross-dressing and gender-bending; closed forms or open; stock characters and plots or narrative fluidity. We will ask why in both China and Europe, opera repeatedly became the conflicted site of nationalist and modernizing aspirations, reiterations of tradition, and attempts at avant-gardism. When the presumed realism of film meets the extravagant hyperperformativity of opera, the encounter produces some extraordinary third kinds-media hybrids. Film repeatedly wrestled with the inherent histrionics of opera through the use of such devices as close-ups, camera angles, shot reverse shot, displacement of sound from sight, acousmatic sound, and trick photography. Such devices were generally meant to suture the supposed improbabilities of the operatic art form, incongruities often based on extravagant and transcendent relationships to realism. Such cinematic renderings of opera are highly revealing of fundamental faultlines in the genres themselves and revealing of the cultures that produced them.

Instructor(s): J. Zeitlin and M. Feldman Terms Offered: Winter

Equivalent Course(s): EALC 41401, MUSI 45019, CDIN 41401, CMST 44601, ITAL 41419

TAPS 41451. Palace of Lasting Life: History, Drama, Fantasy. 100 Units.

This course covers the history of Chinese theater from its emergence as a full-fledged art form in the 10th-11th centuries (the Northern Song) up through its incorporation into modern urban life and nationalist discourse in the first decades of the 20th century (the Republican period). In addition to reading selections from masterpieces of Chinese dramatic literature such as Orphan of Zhao, Romance of the Western Chamber, The Peony Pavilion, we will pay particular attention to the different types of venues, occasions, and performance practices associated with different genres of opera at different moments in time. A central theme will be the changing status of the entertainer and the cultural meanings assigned to acting. All texts to be read in English translation, but students are also encouraged to read Chinese texts in the original if feasible.

Instructor(s): J. Zeitlin Terms Offered: Spring

Prerequisite(s): Good command of classical Chinese.

Equivalent Course(s): EALC 41451

TAPS 41500. Bodies of Transformation. 100 Units.

Drawing on trans studies, disability studies, histories of science, queer and postcolonial theory, this class contends with how bodies and bodies of knowledge change over time. Bodies of Transformation takes a historiographic approach to the social, political, and cultural underpinnings of corporeal meaning, practice and performance in the 19th and 20th centuries. Animating questions include: what is the corporeal real? how is race un/like gender? how does bodily transformation map the complex relationships between coercion and choice?

Instructor(s): C. Riley Snorton Terms Offered: Autumn

Equivalent Course(s): ENGL 41500, GNSE 41500, CRES 41500

TAPS 44016. Modeling the Voice. 100 Units.

Equivalent Course(s): MUSI 44016

TAPS 44420. Practices of Classicism in the French Seventeenth Century. 100 Units.

This seminar has two goals. One is to combine the text-based tradition of French literary studies with the image-based, comparative tradition of art history-and, in so doing, to change the taxonomies of both. The other is to re-evaluate French Classicism by attending to practices of reading, writing, performing, looking and making. The seminar's breadth is designed to appeal to all graduate students interested in the theory and history of aesthetics, and the interleaving of visual and literary evidence. Looking will be no less important than reading, as we will conduct sessions with original objects in the Art Institute and in Regenstein Special Collections. Authors studied will include Corneille, Molière, La Fontaine, Pascal, and Descartes; among the artists, Poussin, Claude Lorrain, La Tour, and Callot. Critical readings will range from Leo Spitzer to Louis Marin and Foucault. The seminar will be conducted in English; all primary texts will be made available in both English translation and, for those with reading knowledge, in the French original. This seminar will travel to Paris during exam week (March 13-21, 2020); airfare and lodging covered by university. Consent of instructors required.

Instructor(s): Larry Norman and Richard Neer Terms Offered: Winter

Equivalent Course(s): CDIN 44420, FREN 34420, ARTH 45885, CMLT 44410

TAPS 45020. Errant Voices: Performances Beyond Measure. 100 Units.

Listening to trans*, raced, and castrato voices, "Errant Voices: Gender and Performances beyond Measure" will explore voices that escape their confines perforce or by choice, trying to make sense of resistant, insurgent, and resilient voices. Students from various disciplines are invited to join the seminar, thereby helping to advance its themes but working from their own strengths and orientations. Our common goal will be to develop shared theoretical language among differing cases that can lead to new insights into wider paradigmatic shifts across gender and race in our historical moment. The project turns on performances inasmuch as they reveal the workings of bodies, intentions, and interactions. It depends on collective thinking because it is intersectional and thus concerns emergent shared languages developed by encountering questions collaboratively.

Instructor(s): Martha Feldman Terms Offered: Spring

Equivalent Course(s): MUSI 45020, GNSE 45020

TAPS 45918. Wagner's "Ring of the Nibelung" in Performance: Siegfried. 100 Units.

This course seeks to explore Richard Wagner's sprawling 19th century tetralogy *The Ring of the Nibelung* via the history of its interpretation on stage. While the first section of the course will offer an introduction to the *Ring* in its entirety, the rest of the quarter will be taken up with an in-depth consideration of *Siegfried*, the 3rd piece in the tetralogy. Our work in the seminar room (which will encompass a range of historical and critical readings and screenings) will be supplemented by attendance at rehearsals for Lyric Opera's production of *Siegfried*, slated to premiere on November 3rd. As it stands, we will cover a substantial amount of territory from a host of genres, eras, fields, and orientations, seeking to understand the contested and often contradictory place in music history and cultural theory that is occupied by Wagner and *The Ring*. Since the course is team-taught by a professor of music and of Germanic studies as well as theater & performance studies, our discussions will seek to encompass a range of fields, approaches, and topics. Among the topics we plan to examine are the aspiration to aesthetic totalization, the politics of community, the notion of distress or emergency (the German term is: *Not*), and some astonishingly lurid fantasies of family life—mostly of family dissolution. Texts will include the works of Friedrich Nietzsche, Theodor Adorno, Carolyn Abbate, Alain Badiou, Nicholas Ridout, and Slavoj Žižek.

Instructor(s): David Levin, Steven Rings Terms Offered: Autumn. Autumn 2018: Wednesdays 1:30-4:20pm in JRL 264

Prerequisite(s): Consent required: Please email Prof. Levin (dlevin@uchicago.edu) or Prof. Rings your background / experience / interest in one more of the following: music history/theory, critical theory, theater and performance studies, Germanic studies, opera studies, cinema and media studies.

Equivalent Course(s): MUSI 45918, GRMN 45918, CDIN 45918

TAPS 46530. Staging the Internet. 100 Units.

The theater has often been used as a means to embody psychic spaces, from Medieval mystery plays and other allegorical works to Richard Foreman's attempt to give theatrical form to consciousness itself. This practice-based lab class will propose to 'stage the internet' - what techniques and strategies can we develop to give tangible shape to the virtual world? Our explorations will be catalyzed by readings on data and interfaces, networks and protocols, procedural/algorithmic art, digital labor, and competing notions of the virtual.

Instructor(s): A. Dorsen Terms Offered: Spring

Prerequisite(s): Course is designed for advanced undergraduates and graduates. Previous coursework in theater & performance studies or related fields required.

Note(s): Attendance at first class meeting is mandatory.

Equivalent Course(s): ARTV 20214, TAPS 26530, ARTV 30214, MAAD 24530

TAPS 48017. Phaedras Compared: Adaptation, Gender, Tragic Form. 100 Units.

This seminar places Racine's French neoclassical tragedy *Phaedra* within a wide-ranging series of adaptations of the ancient myth, from its Greek and Latin sources (Euripides, Seneca, Ovid) to twentieth-century and contemporary translations and stage adaptations (Ted Hughes, Sarah Kane), read along with a series of theoretical and critical texts. Particular attention will be paid to critical paradigms and approaches in the evolving fields of classical reception studies, theater and performance studies, and gender studies. Reading knowledge of French strongly preferred.

Equivalent Course(s): FREN 48017, CDIN 48017, CLAS 48017, GNSE 48017, CMLT 48017

TAPS 49700. Performance Practice as Research. 100 Units.

Performance Practice as Research (PPR) seeks to be a laboratory for doctoral students to develop performance work as a means of research -- to pursue inquiries within and through artistic practice. Students will investigate methodologies for creating artistic works in the media of their choice, meaningful terms for critique, and how to put their artistic work into productive dialogue with their scholarship. The instructor will work with each student to customize the development process and presentation(s) of the work. Though the primary focus of the course will be on students' individual projects, there will be a seminar component consisting of readings, viewings and written assignments. This single-credit course aims to have in-class hours and a work load equivalent to a single course but will be scheduled over two quarters to give students ample time to conceive and realize their projects. The class will not meet every week each quarter and will have some flexibility in how it is organized. Please contact the instructor for further information about course content and logistics.

Instructor(s): L. Danzig Terms Offered: Spring Winter

TAPS 49900. Reading and Research. 100 Units.

This is a reading and research course for independent study.
Equivalent Course(s): TAPS 29900

TAPS 50300. Catharsis, Tedium, and other Aesthetic Responses. 100 Units.

This seminar examines the ramifications of catharsis, tedium and other forms of aesthetic response, in other words the relationship between effect and affect in and in response to performance, live, mediated and in reading. Beginning with Aristotle and present day responses to catharsis, we will investigate the kinds of aesthetic response invoked by theories of tragedy (esp Hegel), realism (authority, attachment and estrangement in Lukacs, Adorno, Brecht, Benjamin), as well as theories of pleasure (Barthes, Derrida, Cixous) and tedium (Heidegger). We will also explore tedium through text and audio of *The Hunchback Variations* by local playwright Mickle Maher. We will conclude with, the potential and limitations of catharsis as an appropriate response to testimonial narrative in text and film during and after the dictatorship in Chile. An essential part of the discussion will be the problem of translating key theoretical terms, not only from one language to another but also from one theoretical discourse to another.

Instructor(s): Loren Kruger Terms Offered: Autumn

Equivalent Course(s): CMLT 50300, ENGL 50301

TAPS 51420. The Literary and Visual Worlds of Xixiang ji. 100 Units.

This course examines the most influential Chinese drama of all times, the *Xixiang ji* (Romance of the Western Chamber) in light of its multiple literary and visual traditions. Over 100 different woodblock editions, many of them illustrated, were published during the Ming and Qing dynasties alone. The focus of the class will be on close readings of the original texts in classical and early modern vernacular Chinese. We will concentrate on the earliest extant edition of 1498 and Jin Shengtan's annotated and abridged edition of 1656, along with important sets of woodblock illustrations of the play.

Instructor(s): J. Zeitlin Terms Offered: Autumn

Prerequisite(s): Good reading skills in both classical and vernacular Chinese. Instructor's permission required.

Equivalent Course(s): EALC 51420

TAPS 51820. Minstrelsy-Vaudeville-Cinema: Racialized Performance and American Popular Culture. 100 Units.

What would it mean to say that minstrelsy was a foundational practice in the development of American popular culture, and that the emergence of American cinema must be understood through the lens of its ubiquity?

This course therefore investigates the persistence of minstrelsy in American popular culture from the early 19th century to the turn of the 20th century. It traces the development of its tropes, themes, and practices from traveling tent shows to the variety theater of vaudeville and to the emergence of cinema. We will attempt to make legible the functionings of its racist caricatures, account for its popularity and longevity, and explore moments of creative resistance to its dehumanizing portrayals of African Americans. We will look at 19th century performers and composers including T.D. Rice, Billy Kersands, Stephen Foster, Bert Williams and George Walker, Ernest Hogan, May Irwin, Sissieretta Jones. We will also consider later filmmakers working with and against the racialized representations of minstrelsy including D.W. Griffith, Al Jolson, Oscar Micheaux, and Stepin Fetchit, and contemporary reimaginings, confrontations and reckonings, including those of Spike Lee, Dave Chappelle, Christopher Harris, and Edgar Arceneaux. Emphasis will be on methods of primary historical research as well as theories of race, gender and performance.

Instructor(s): A.Field Terms Offered: Winter

Equivalent Course(s): CMST 61820

TAPS 59400. Realism, Social Modernism: Aesthetics and Politics Between the Wars. 100 Units.

The theoretical influence of arguments in the 1920s and 1930s about the relative value of realism and modernism is well known, but the entwinement of theory with cultural production and political debates is less so. This intensive reading course will attempt to historicize theory between the world wars--or more specifically between Bolshevik and German revolutionary responses to the first war and Popular Front against the rise of Fascism leading to the second--by reevaluating the work relatively familiar theorists such as Benjamin, Lenin, and esp. Lukacs in the light of their interlocutors, in fiction, film, and drama Brecht, Gladkov, Gorki, Pudovkin, Eisenstein, Dovzhenko, Seghers, Sholokhov, Christa Wolf, Konrad Wolf, Frank Beyer and their counterparts in America, the *Living Newspaper*, Film and Photo League, writers for New Masses as well as in theory Bloch, Eisler, Zhdanov, Kenneth Burke, Mike Gold, John Howard Lawson, among others. Essential texts are available in English but working knowledge of German (or Russian) and/or marxist theory very helpful.

Instructor(s): Loren Kruger Terms Offered: Autumn

Equivalent Course(s): GRMN 43700, ENGL 59401, CMLT 59400, SCTH 59400, CMST 67100



DEPARTMENT OF ART HISTORY

Chair

- Christine Mehring

Professors

- Darby English
- Christine Mehring
- William J. T. Mitchell
- Richard Neer
- Joel M. Snyder
- Wu Hung

Associate Professors

- Niall Atkinson
- Persis Berlekamp
- Claudia Brittenham
- Chelsea Foxwell
- Matthew Jesse Jackson
- Aden Kumler
- Wei-Cheng Lin, Director of Graduate Studies
- Andrei Pop
- Katherine Taylor
- Martha Ward

Assistant Professors

- Patrick Crowley
- Seth Estrin
- Megan Sullivan

Harper Schmidt Collegiate Assistant Professor

- TBD

Emeritus Faculty

- Charles Cohen
- Tom Gunning
- Neil Harris
- Reinhold Heller
- Robert S. Nelson
- Linda Seidel
- Barbara Stafford
- Yuri Tsivian

Visiting Professors

- Ina Blom, Department of Philosophy, Classics, History of Art, and Ideas, University of Oslo
- Jas' Elsner, Corpus Christi College, University of Oxford

The department offers a program for the study of the history of art, leading to the degree of Doctor of Philosophy. Our program distinguishes itself with a combination of global scope, object-driven research, and committed interdisciplinarity. Students pursue research spanning five continents, including Asian, European, Islamic, Latin American, and North American art, as well as the relations between these and other areas traditionally treated in isolation. Object-, material-, and site-based research and teaching are often large-scale and collaborative and include annual traveling seminars, conservation classes, as well as instruction and training at the Smart Museum and Art Institute. Interdisciplinary commitments manifest in faculty's co-teaching, cross-appointments, and involvements in other departments, centers, and initiatives across campus, in the multiple workshops faculty and students in art history sponsor and participate in, and in the coursework students are encouraged to pursue beyond art history.

ADMISSION

A student wishing to enter the graduate program should have a sound undergraduate education in the humanities and liberal arts, preferably but not necessarily with a major in the history of art. It is highly recommended that students have usable skills in French, German, or other major languages relevant to the student's area of focus. More specific information about appropriate languages can be found on the department's website (<https://arthistory.uchicago.edu/graduate/program>). Applicants are required to submit Graduate Record Examination (GRE) aptitude scores. Both applicants with a BA and applicants who bring an MA in Art History from another institution are welcome to apply for admission to the PhD program. The department grants MA degrees but does not have an independent MA program.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available on the Humanities Division website (<http://humanities.uchicago.edu/students/admissions>).

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The minimum required TOEFL score is 104, with 26 on each subsection. The minimum IELTS is 7.0, with 7.0 on each subsection. For more information, please visit the Office of International Affairs website (<https://internationalaffairs.uchicago.edu>).

THE DEGREE OF DOCTOR OF PHILOSOPHY

The doctoral program in art history typically involves two years of coursework, the completion of a qualifying paper, preliminary exams in three fields, a dissertation prospectus, and a dissertation. Following their coursework, students also learn to teach by serving as a teaching assistant for faculty-taught undergraduate courses and taking the department's teaching colloquium. After advancing to ABD status, students research and write their dissertation, usually combining time in Chicago with traveling abroad.

Students should refer to the Graduate Student Handbook (<https://wiki.uchicago.edu/display/AHH>) for details on all requirements.

COURSE REQUIREMENTS

In general terms, the doctoral program requires two years of full time coursework. Students typically enroll in three courses each quarter during their first two years, and courses are selected with the guidance of the student's doctoral advisor and in consultation with the Director of Graduate Studies in the department.

All students take ARTH 40200 Art History Proseminar and ARTH 44002 COSI Objects & Materials Seminar in the Autumn and Winter Quarters, respectively, of their first year. Among the other 18 courses required for the doctoral degree are two courses each for distribution requirements and for the student's minor field. The qualifying paper, completed by the end of Winter Quarter of the second year, is researched and written within the framework of two Qualifying Paper Reading Courses typically supervised by the doctoral advisor and/or another faculty member. Finally, students enroll in a Preliminary Exam Directed Reading Course in the Spring Quarter of their second year.

All students must demonstrate competency in languages determined by their chosen field. Depending on the language and level, up to three language courses may be counted toward the total number of courses required for the degree.

Given the department's strong history of and continuing commitment to interdisciplinary inquiry and intellectual formation, the doctoral program allows for as many as 8 of the total 18 courses required for the PhD to be taken outside the Department of Art History.

In their third year, students are required to take the Teaching Colloquium and Dissertation Proposal Workshop offered yearly by an art history faculty member. These courses do not count toward the 18 courses required for the PhD. Students also prepare for and take their preliminary exams, and typically hold their first teaching assignments in their third year.

ABD

Upon successful completion of all coursework requirements, the qualifying paper, the relevant language requirements, and the preliminary exams, each student prepares a dissertation proposal that must be approved by three committee members. Upon that approval and an administrative review of the student's file, the student formally advances to the status of "PhD Candidate" and All But Dissertation (ABD) status.

In subsequent years, students research and write the dissertation while further developing their teaching skills (in keeping with the doctoral program's teaching requirement). Following the submission and successful defense of the dissertation, the doctoral degree is conferred. The current expectation, in general terms, is that

completion of the PhD in Art History requires approximately seven years, but time to degree will vary: some students may graduate in less than seven years, others may find they need an additional year.

While all doctoral students must fulfill the requirements sketched above, the different fields of art historical study that are represented in the Department of Art History each have their own particular scholarly requirements. With the aim of providing graduate students with the most rigorous formation in their chosen area of specialization, the department has made various structural provisions to ensure that students can receive the additional training required by their chosen field (including additional language study, training in specialized research skills, and curatorial formation). As these scholarly requirements vary from field to field, so too—within limits set by the Department of Art History and the Division of the Humanities—the pace of each student's progress through the doctoral program will necessarily be shaped by the requirements of his/her chosen area of study, in consultation with the art history faculty.

JOINT AND DUAL PHDS

Select students may pursue joint PhD degrees with art history and another department or program. Joint PhD programs at the University of Chicago are of two types, "standing" and "ad hoc."

A standing joint degree program has been established between Art History (ARTH) and the Committee on Theater and Performance Studies (TAPS). It allows students to complement their doctoral studies in Art History with a program of study in TAPS that reflects their particular training and interests, encompassing both academic and artistic work. Students apply to this standing program at the time of their application to the University, which is submitted to the art history department.

Students may petition for an ad-hoc joint PhD with another department or program according to guidelines set by the Humanities Division (<https://humanities.uchicago.edu/students/manual/academic-policies/joint-degree-programs>). Generally, admitted students must separately meet the requirements of both programs, but any overlapping requirement need only be met once if each department would otherwise consider it met were that student not in the joint degree program. Recent art history students have completed joint PhDs with Cinema and Media Studies and with Social Thought.

Under a new initiative (<https://fcc.uchicago.edu/page/international-dual-phd-degree-program>), some students may simultaneously pursue PhD studies at the University of Chicago and at a degree-granting institution of higher learning in France, leading to two PhD degrees – one from each of the two institutions. Students approved for this initiative pursue a specific course of study depending on their research and professional interests, must satisfy all the requirements of both doctoral programs, and must write and defend a single dissertation that meets the requirements for each degree.

THE DEGREE OF MASTER OF ARTS

The objective of the program is the PhD degree. Doctoral students in the program are eligible to receive an MA degree after completing the following requirements: one foreign language required for the student's field; nine one-quarter courses at the University of Chicago which meet the first-year distribution requirements, including ARTH 40200 Art History Proseminar and ARTH 44002 COSI Objects & Materials Seminar; and approval of the qualifying paper from both readers.

Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study in a number of areas of interest to students. Further details about the MAPH program are available on their website (<https://maph.uchicago.edu/master-arts-program-humanities>).

COURSES

For more information on recently taught courses, please see the course description page of the departmental website (<https://arthistory.uchicago.edu/graduate/courses>).

ART HISTORY COURSES

ARTH 30228. William Blake: Poet, Painter, and Prophet. 100 Units.

William Blake is arguably the most unusual figure in the history of English poetry and visual art. Recognized now as an essential part of the canon of Romantic poetry, he was almost completely unknown in his own time. His paintings, poems, and illuminated books were objects of fascination for a small group of admirers, but it was not until the late 19th century that his work began to be collected by William Butler Yeats, and not until the 1960s that he was recognized as a major figure in the history of art and literature. Dismissed as insane in his own time, his prophetic and visionary works are now seen as anticipating some of the most radical strands of modern thought, including Freud, Marx, and Nietzsche. We will study Blake's work from a variety of perspectives, placing his poetry in relation to the prophetic ambitions of Milton and his visual images in the European iconographic tradition of Michelangelo and Durer, Goya and Fuseli. The course will emphasize close readings of his lyric poems, and attempt to open up the mythic cosmology of his allegorical, epic, and prophetic books. (Poetry, 1650-1830; Theory; 18th/19th)

Instructor(s): W. J. T. Mitchell Terms Offered: Winter

Equivalent Course(s): ENGL 20228, FNLD 20228, ENGL 30228, ARTH 20228

ARTH 30304. Ancient Stones in Modern Hands. 100 Units.

Objects from classical antiquity that have survived into the modern era have enticed, inspired, and haunted those who encountered or possessed them. Collectors, in turn, have charged ancient objects with emotional, spiritual, and temporal power, enrolling them in all aspects of their lives, from questions of politics and religion to those of race and sexuality. This course explores intimate histories of private ownership of antiquities as they appear within literature, visual art, theater, aesthetics, and collecting practices. Focusing on the sensorial, material, and affective dimensions of collecting, we will survey histories of modern classicism that span from the eighteenth century to the present, from the Mediterranean to the Pacific. Historical sources will include the writings of Johann Gottfried Herder, Johann Joachim Winckelmann, Emma Hamilton, Vernon Lee, and Sigmund Freud, among others; secondary source scholarship will draw from the fields of gender studies, the history of race, art history, and the history of emotions. We will supplement our readings with occasional museum visits and film screenings. Assignments: Active participation in class, one secondary text analysis, one analysis of a controversy, and one proposal for a monument, museum, or school curriculum.

Instructor(s): S. Estrin & A. Goff Terms Offered: Winter

Prerequisite(s): Instructor consent required. Email both instructors describing your interest in the course, how it fits into your broader studies, and any relevant background (agoff@uchicago.edu & sestrin@uchicago.edu). This is a traveling seminar that includes a 4-day trip to visit California museum collections.

Note(s): Making History courses forgo traditional paper assignments for innovative projects that develop new skills with professional applications in the working world. A team-taught and interdisciplinary course; we welcome students from all backgrounds, with no previous experience in ancient art or modern history required.

Equivalent Course(s): HIST 29422, HIST 39422, ARTH 20304, CLAS 31019, CLCV 21019

ARTH 30603. Image and Text in Mexican Codices. 100 Units.

In most Mesoamerican languages, a single word describes the activities that we would call "writing" and "painting." This seminar will investigate the interrelationships between image and text in Central Mexico both before and immediately after the introduction of alphabetic writing in the 16th century. We will also review art historical and archaeological evidence for the social conditions of textual and artistic production in Mexico, and how these traditions were transformed under Spanish colonial rule. We will consider the materiality of text and image by working with facsimiles of Mesoamerican books in the Special Collections Research Center of the Regenstein Library. At the end of the course, students will have acquired a basic literacy in Aztec and Mixtec writing systems, and will have refined their ability to look productively and write elegantly about art.

Instructor(s): C. Brittenham Terms Offered: Spring

Equivalent Course(s): KNOW 27001, KNOW 37001, ARTH 20603, LACS 30603, LACS 20603

ARTH 30700. Understanding the Built Environment. 100 Units.

This course aims to equip students with the basic skills and knowledge required to analyse architecture and the urban environment. It offers an introduction to the methods and procedures of the architectural historian. These include practical tasks such as understanding architectural terminology, reading and interpreting architectural drawings, engaging with buildings 'on site', and studying buildings in context through urban design issues, such as street networks and public spaces. At a broader level, the course will involve critical discussions about the relationship between architecture and society, the building as a historical object, cultural representations of architecture, and modes of perceiving/experiencing the built environment. The course will operate through a combination of in-class seminars and site visits to buildings in Chicago. This course is specifically geared to introducing the fundamentals of architectural history to those undergraduate students seeking a minor in architectural studies. However, MA and PhD students in other fields are welcome to register.

Instructor(s): K. Taylor Terms Offered: Autumn

Note(s): In the second weekly session, the class will often meet off-campus at sites throughout the city. Students will need to be able to get to these sites in plenty of time, and therefore should not have other classes directly before or after.

Equivalent Course(s): ARCH 20000, ARTH 20700

ARTH 31313. Video Art: The Analog Years. Theory, Technology, Practice. 100 Units.

The course gives a critical introduction to early video and television art - from the proto-televisual impulses in the historical avant-gardes to the increasing proximity between analog and digital technologies in video art in the late 1970's and early 1980's. We will focus on the various technical aspects of analog video, as well as on artistic practice and early writings on the subject. Topics will include the technics and politics of time; video, feedback systems and ecology; the reconfiguration of the artist's studio; guerilla politics and alternative TV; video and autobiography; the relation between video and painting; the musical history of video; the invention of new machines; and video as a "television viewer".

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): MAAD 18703, CMST 38703, CMST 28703, ARTH 21313

ARTH 32106. Introduction to the Study of Iconography. 100 Units.

Equivalent Course(s): HCHR 32106, RLIT 32106, ARTH 22106, RLST 28320

ARTH 32351. The Sonic Image. 100 Units.

The Sonic Image offers a unique opportunity to work with three senior researchers exploring the bridge-making and sense delimiting articulations of sound & sight together. We will examine the potency of sound in a world largely understood through its visualization as a world picture. Readings in sound studies, visual studies & media studies explore sound, sounds that evoke pictures, the forensics of sound, sound art, & films including *The Conversation*, *Blow Out* & *Amour*. Each faculty collaborator brings distinct interests to the course. WJT Mitchell's renowned theorization of images naturally extends to his theorizing the possibility of the sonic image. Artist Lawrence Abu Hamdan's commitment to the value of earwitnessing asks the listener to extend forensic knowledge to the very core of what it means to be a human being in the world. For the course, Hamdan will develop a workshop comprising a series of practical exercises that experiment with the conditions of testimony or claim making, enabling an exploration of how the law come to its truths and how can we use sonic imagination to trouble & contest established modes of enacting justice. Performance scholar, Hannah B Higgins, examines how musical notation, performance & sound bear on the relationships between sound & vision in recent art practices. An intervention from composer Janice Misurell-Mitchell will add a dimension of musical testimony to our investigation.

Instructor(s): W.J.T. Mitchell, Hannah Higgins, Lawrence Abu Hamdan Terms Offered: Autumn

Prerequisite(s): Open to all levels with consent of the instructors. All interested students should please email the instructor (wjtm@uchicago.edu) a one page statement of interest, explaining why they want to take the course, and what they will bring to it.

Equivalent Course(s): ARTV 40351, ARTV 20351, ENGL 22351, MAAD 12351, ARTH 22351, ENGL 42351

ARTH 32402. Perspective as a Challenge to Art History. 100 Units.

Equivalent Course(s): SCTH 32402, ENGL 22402, ENGL 42412, ARTH 22402

ARTH 32611. The Politics of Luxury in the Middle Ages. 100 Units.

This course explores conspicuous consumption, the love of costly things, the lure and power of precious materials, and the important role played by the arts in the definition of status, authority, influence, and pleasure in the Middle Ages. Investigating a series of episodes from the history of medieval luxury, we will explore how precious objects participated in western gift-culture (both "sacred" and "secular"), how the patronage of works of art pursued a variety of ideological and social aims, and we will scrutinize the aesthetic and economic conceptions of value transacted via works of art and practices of "ars" (skilled labor). Not least, the course aims to interrogate how the politics of luxury contributed to changing conceptions of the status of the artwork and the artist over the course of the Middle Ages.

Instructor(s): A. Kumler Terms Offered: Autumn

Equivalent Course(s): ARTH 22611, MDVL 22611

ARTH 33602. Native American Art at The Field Museum: An Anthropological Perspective. 100 Units.

This course explores recent forays into collecting and displaying contemporary Native American Art for the Field Museum, a museum of natural history and anthropology. Through site visits and dialogues with Field Museum staff, contemporary Native American artists, and readings, the course introduces students to the potential and problematic of locating, defining, and representing contemporary art within the colonial context of the Field Museum and how collaboration with artists and community members plays a role in shifting the paradigm toward one that centers collaborative curation and is inclusive of the direct voice of artists. Students will have the opportunity to observe the major renovation currently underway of the Native North American Hall and the role that contemporary art will play in deepening understanding of existing collections and contemporary social concerns.

Instructor(s): A. Wali Terms Offered: Autumn

Equivalent Course(s): ARTH 23602

ARTH 34002. Advanced Nonfiction Workshop: Writing About the Arts. 100 Units.

The short and the long of it. In this course, we'll be focusing on writing about visual arts by using shorter and longer forms, and while thinking about short and long durations of time. The time of encounter with a work of art, the time of its making, kinds of time the artists wanted to invoke, the endurance and ephemerality of the work, and of the experience of the work. We'll work short: wall text, compressed review, lyric fragment, and long: involved and layered sentences and elaborations. We'll work with and against different kinds of syntax, white space, and the unspoken, and read authors including John Yau, Lori Waxman, Zbigniew Herbert, Mark Strand, John Berger, Junichiro Tanizaki, and Dore Ashton, and ekphrastic poetry by Terrance Hayes, Tyehimba Jess, and Lyrae Van Clief-Stefanon. The course hopes to support students both in developing useful practices and experimenting boldly. Every class session will begin with a student-led two-work tour at the Smart Museum, and we will spend one session on close looking at works on paper at the Smart. Students will also visit five collections, exhibitions and/or galleries and keep a looking diary. Students will write a number of exercises in different forms (wall text, review, interview / portrait), and will also write two essays (which may follow one extended line or be a mosaic composite) to be workshopped in class.

Instructor(s): Rachel Cohen Terms Offered: Spring

Prerequisite(s): Instructor consent required. Apply via creativewriting.uchicago.edu (writing sample required).

Attendance on the first day is mandatory.

Equivalent Course(s): CRWR 44002, ARTH 24002, CRWR 24002

ARTH 34008. Advanced Nonfiction Workshop: Drawing from Life. 100 Units.

This is a course for students interested in developing their ability to write about the visual arts, as critics, appreciators, theorists, or memoirists, and, practically, for work in galleries, museums, journals, and magazines. A theme of the course will be to explore ways that art and life may interact, both in the work made by a visual artist, and in the nonfiction that arises in response to a visual artist or their work. Some students may be interested to write biographically about artists and their work, and we'll talk about how to make biography illuminating and not reductive; other students may be interested to draw on their own life experiences as they try to shed light on works of art; still others may be curious to see how certain artists themselves have viewed the questions and practices of drawing from life. We'll use ideas about drawing, and especially drawing repeatedly, as a model and a metaphor for thinking about writing. We'll have some occasions to look at works on paper held at the Smart Museum, and we'll visit some exhibitions and galleries, together and independently. Readings will include works such as James Lord's book *A Giacometti Portrait*, on being drawn by Giacometti, Maggie Nelson on the color blue in life and art from *Bluets*, John Berger on drawing, Rebecca Solnit on photographer Edward Muybridge, Geoff Dyer on street photography from *The Ongoing Moment*, John Yau on Jasper Johns's practice and on those of contemporary artists, Zbigniew Herbert

Instructor(s): Rachel Cohen Terms Offered: Spring

Prerequisite(s): Instructor consent required. Apply via creativewriting.uchicago.edu (include writing sample).

Attendance on the first day is mandatory.

Equivalent Course(s): CRWR 44008, CRWR 24008, ARTH 24008

ARTH 34090. Japanese Woodblock Prints: From 1660 to the Present. 100 Units.

Despite the availability of moveable type, woodblock printing—in which each printed sheet was produced by an intricately hand-carved block—was the main reproductive technology in early modern Japan (roughly 1600 to 1850) for both texts and images. In these years, Japan's high literacy rates and booming urban publishing industry gave rise to an array of fascinating illustrated books and prints—from theater ephemera and guidebooks to "art" prints, landscape series, and supernatural tales—that offer interesting points of comparison with early modern printing in the West. Drawing on a recent exhibition at the Smart Museum, this course will consider Japanese woodblock prints as artistic and social objects during the seventeenth through nineteenth centuries. While viewing actual prints in area collections, we will discuss style and technique, the representation of class and gender, the world of the pleasure quarters, illustrated plays and fiction, urban growth and travel, censorship, and the supernatural.

Instructor(s): C. Foxwell Terms Offered: Spring

Equivalent Course(s): ARTH 24090, EALC 34090, EALC 24090

ARTH 34106. Uncanny Resemblances. 100 Units.

This course examines one of the most captivating bodies of portrait art in the Western tradition. For well over a century, the study of Roman portraiture, an essentially German subfield of classical archaeology, has largely confined itself to forensic problems of dating and identification. More recent work has focused on social and political topics ranging from site-specific issues of context and display, patronage and power, gender, and the ideological stakes of recarving and reuse. Additionally, we will consider the historiographical and media-archaeological contexts that have profoundly shaped and framed our understanding of these objects, both in antiquity and modernity: e.g., the production (and reproduction) of wax and plaster death masks in Roman funerary custom; ancient theories in the domain of optics that were used to explain the phenomenon of portraits whose eyes appear to follow a beholder in space; how the stylistic category of "veristic" portraiture in the Roman Republic has its origins not in antiquity (despite the Latin etymology), but rather in the painting and photography of the Neue Sachlichkeit in Weimar Germany; and how the contemporary use of digital craniofacial anthropometry to study the recarving and reuse of Roman portraits relates to Sir Francis Galton's criminological apparatus for creating composite photographic images using portraits from ancient coins as early as 1885.

Instructor(s): P. Crowley Terms Offered: Spring

Equivalent Course(s): CLAS 33119, CLCV 23119, KNOW 34106, ARTH 24106, KNOW 24106

ARTH 34195. Architecture on Display. 100 Units.

This traveling seminar explores the challenges of exhibiting architecture and the built environment, a medium whose scale resists traditional museum and gallery display and whose representation in drawings is notoriously difficult for the public to grasp - but nonetheless is increasingly embraced by museums and biennales. Our central example is "Countryside: Future of the World," an exhibit on the future of the global hinterland at Frank Lloyd Wright's Guggenheim Museum in New York, which we will visit. The latest of several provocative exhibitions by contemporary architect Rem Koolhaas, it instantiates a recent phenomenon of interpretive and thematic shows by architects that exceed the museum's traditional aim to represent architect-designed buildings and projects. In addition to examining Koolhaas's work, we will investigate architectural display in two broader contexts: other types of contemporary architectural exhibition, particularly examples we can visit in Chicago and New York, and the history of architectural display through drawings, models, mock-ups, fragments, virtual reality, and buildings converted into museums in their own right, from tenements to the Robie House. Students will write research papers. The course includes a class trip to New York over a long weekend during the quarter, Thursday evening to Sunday.

Instructor(s): K. Taylor Terms Offered: Spring

Note(s): This is a traveling seminar and instructor consent is required.

Equivalent Course(s): ARCH 24195, ARTH 24195

ARTH 34267. Architecture of Memory. 100 Units.

This architecture studio course will explore the concept of spaces created as memorials or for the purpose of holding or preserving memories. Design projects and spatial concepts will be the main focus for the class. Students will also research and critique existing built projects and visit spaces around the city to form a basis for understanding and analyzing architecture. Students will generate a portfolio of 2D and 3D spatial explorations throughout the quarter. For final design projects, students will choose real sites and will create a design for a memorial for an aspect of social history of the South Side and/or the Washington Park neighborhood of Chicago. Visits to exhibitions around Chicago and current events stories will serve as starting points for project subjects. Students are required to attend the first seminar to enroll in the course. Excursions across the city will occur during regular meeting times, but a make-up option will be outlined and permitted. Though basic tools and materials for model making will be available for sharing during studio or through a tool library, some students may find it beneficial to obtain their own items for use outside of class time and to supplement what is provided.

Instructor(s): N. Bharani Terms Offered: Winter

Note(s): Excursions across the city will occur during regular meeting times, but a make-up option will be outlined and permitted. Though basic tools and materials for model making will be available for sharing during studio or through a tool library, some students may find it beneficial to obtain their own items for use outside of class time and to supplement what is provided.

Equivalent Course(s): ARTV 24267, ARTH 24267, ARTV 34267

ARTH 34611. Materialities of Modern Art. 100 Units.

Exploring the significances of materiality in art, particularly in modern art, this seminar will test the art historical relevances of theories and histories of materials, and, by extension, of matter, tactility, touch, things, objects, commodities, use, craft, and design. Readings will be drawn from a variety of disciplines, including aesthetics, art history, anthropology, literary theory, philosophy, visual and material culture. Part of the purpose of the class is to work closely with the Smart Museum exhibition "The Allure of Matter."

Instructor(s): C. Mehring Terms Offered: Winter

Equivalent Course(s): ARTH 24611

ARTH 34615. Modern & Contemporary Materialities (Suzanne Deal Booth Conservation Seminar) 100 Units.

This course aims to explore the links between materiality, making and meaning of modern art and investigate how surface, form, texture and color are localized in particular artistic or historical contexts. It can be argued that the discipline of art history still remains substantially divided between those who study what objects mean and those who study how objects are made, where 'meaning' typically derives from cultural hermeneutics, while 'madeness' remains the province of technical analysis. The course will discuss the methods, theory and strategies of a material-based approach, its forms of writing and claims to meaning. Readings will be drawn from a variety of disciplines, including art history, visual and material culture, anthropology, philosophy, and material science.

Instructor(s): M. Kokkori Terms Offered: Autumn

Note(s): Registration by instructor consent only.

Equivalent Course(s): ARTH 24615

ARTH 34626. Allure of Matter: Material Art in China. 100 Units.

This seminar examines contemporary art in China through the lens of the Smart Museum of Art's upcoming exhibition, *The Allure of Matter: Material Art in China*. Using works in the exhibition as case studies, the course explores questions about materials and materiality in contemporary art. Throughout the course, we will address the following questions: How have unconventional materials impacted art practices in China? How do these material explorations inform our understanding of contemporary art in China and beyond? How do materials mediate different relationships between the artist, artwork and viewer? Guest speakers, including conservators, will expand our discussions of materiality. The course will meet for approximately half of the time at the Smart Museum or Wrightwood 659.

Instructor(s): O. Cacchione Terms Offered: Winter

Prerequisite(s): Students who have taken a course in modern or contemporary art history preferred.

Equivalent Course(s): EALC 34627, EALC 24627, ARTH 24626

ARTH 34721. Manet, Mallarmé, and Modernism. 100 Units.

Much of the theory, as well as the look and sound of modern art, as it developed in the late nineteenth century, is the result of the individual efforts as well as the friendly collaboration of the Parisian painter Edouard Manet and the Parisian poet and English teacher Stéphane Mallarmé. This course will introduce them, examine their major collaborations (*Le Courbeau*, *L'Après-Midi d'un Faune*), and place them within the developing consensus in experimental art and thought at the fin de siècle, which for reasons having to do with the reception Mallarmé, came to be called symbolism.

Instructor(s): A. Pop Terms Offered: Spring

Equivalent Course(s): ARTH 24721, FNLD 25007, SCTH 35007

ARTH 34813. Museums and Art, 1750-1920. 100 Units.

This course considers how the rise of the art museum in the modern era affected the making of modern art and the viewing of past art. It is not designed to be a survey course, but rather a historical investigation of certain issues and developments. We will concentrate on the following: what has been said to happen to objects when they are uprooted and moved into the museum; how and why museums have changed display practices so as to get viewers to look at art in new ways; what artists have understood museums to represent and how they have responded to that understanding in their work and their display preferences. Case studies will be drawn from across Europe and the United States.

Instructor(s): M. Ward Terms Offered: Autumn

Equivalent Course(s): ARTH 24813

ARTH 34814. Museums and Art, 1920-present. 100 Units.

This course considers the history of the art museum in relation to developments in modern and contemporary art. We will focus upon how political, social and commercial factors transformed art institutions and display practices in the early and mid-century 20th century; how various challenges -- artists' critiques, new forms of art making, different audiences - did (or did not) lead to change in the 1960s; and how museums have continued to evolve in the times since. Case studies will be drawn from across Europe and the United States.

Instructor(s): M. Ward Terms Offered: Spring

Equivalent Course(s): ARTH 24814

ARTH 35001. Theatricality in Modern Art from 1700 to the Present. 100 Units.

We examine the dramatic dimension of art in the modern era broadly speaking, paying attention to recurring themes like the Aristotelian theory of action, the Diderotian theory of acting, and the linguistic theory of speech acts, as well as to momentous historical events like the French Revolution, the rediscovery of antiquity, and the advent of photography and motion pictures. Paradigms that have been influential in one or another discipline like Michael Fried's theory of theatricality (in art history), Heinrich Kleist's theory of puppets (in German literature and theatre theory) and Friedrich Nietzsche's theory of tragedy (in music and philosophy) and will also be scrutinized.

Equivalent Course(s): SCTH 35001

ARTH 35105. Chichen Itza. 100 Units.

This course investigates the visual culture of Chichen Itza, one of ancient Mesoamerica's most cosmopolitan cities. Thriving in the centuries after the collapse of the lowland Maya kingdoms, the city of Chichen Itza articulated a new political and cosmological vision of authority, drawing on traditions from all over Mesoamerica, past and present, to create an innovative visual synthesis. This course will investigate Chichen Itza's most famous architectural and sculptural monuments in the light of new epigraphic and chronological discoveries, paying close attention to questions of innovation, repetition, and serial production.

Instructor(s): C. Brittenham Terms Offered: Autumn

Prerequisite(s): This is a traveling seminar; we will go to Chichen Itza and related sites in Mexico between December 14-21, 2019. Please email the course instructor, explaining your interest in and preparation for the course. Students who are interested in the course but unable to travel should also contact the instructor.

Equivalent Course(s): LACS 35105, ARTH 25105, LACS 25105, ARCH 25105

ARTH 35111. Rhoades Seminar: Theory, History, and Practice of Textiles - The Andes. 100 Units.

How many minutes of your day are spent with some form of textile touching your skin? And yet, what do you really know about them? This seminar will introduce you to the basic concepts and techniques of making textiles. While readings and discussions will offer globally-relevant perspectives on textiles, the course's primary lens will be the prolific textile tradition that developed in the region of the Andes Mountains over thousands of years. In this course, you will conduct hands-on experiments with technologies for spinning, dyeing, and weaving in an art historical laboratory setting, in order to understand the tools, techniques, and embodied knowledge that they entail. You will then apply what you have learned in these experiments to your own studies of ancient Andean textiles in the stellar collection of the Art Institute of Chicago. Readings will draw on scholarship, reference works, and how-to manuals. Written assignments will take the form of gallery labels and catalogue essays in order to better understand these genres of writing. This course has no prerequisites, but a willingness to participate in active learning (and not having a fear of perhaps doing something badly the first time) are essential. A background in art practice may be helpful, but is in no way necessary or required. Because wool will be handled extensively, potential allergies should be considered before enrolling.

Instructor(s): A. Hamilton Terms Offered: Winter

Note(s): This course meets at the Art Institute of Chicago. Students should plan their schedules accordingly to account for travel.

Equivalent Course(s): ARTH 25111, LACS 33512, LACS 23512

ARTH 35115. Winckelmann: Enlightenment Art Historian and Philosopher. 100 Units.

We approach the first great modern art historian through reading his classic early and mature writings and through the art and criticism of his time (and at the end, our own). Reading-intensive, with a field trip to the Art Institute.

Instructor(s): Andrei Pop Terms Offered: Autumn

Prerequisite(s): German reading competence helpful, but NOT required.

Equivalent Course(s): GRMN 25015, ARTH 25115, CLAS 35014, KNOW 35000, SCTH 35000, GRMN 35015

ARTH 35213. Hermeneutics of the Image. 100 Units.

What does it mean to "read" an image? To achieve an understanding of its "meaning"? This is not an easy question since images don't directly offer propositional content, which is the usual habitat of meaning. In this seminar, we will approach this question by considering first some foundational contributions to hermeneutics (Gadamer, Hirsch) and to the theory of pictorial meaning (Wollheim). We will then dig into the tradition of pictorial interpretation as it unfolds starting with Winckelmann and Diderot and extending to the present day (Fried, Clark). Freudian hermeneutics (Freud, Adrian Stokes), iconology (Panofsky), and phenomenology (Merleau-Ponty, Heidegger) will also be considered. In each case, we will endeavor to test the claims and interpretive findings through close examination of the images involved. The emphasis will be on the tradition of European painting and sculpture, but the tools acquired in the seminar should also be applicable in other fields.

Instructor(s): David Wellbery Terms Offered: Winter

Prerequisite(s): For advanced undergrads, consent of instructor required.

Equivalent Course(s): GRMN 25213, SCTH 38113, GRMN 35213, ARTH 25213

ARTH 35500. Avant-Garde in East Central Europe. 100 Units.

The avant-gardes of the "other" Europe are the mainstay of this course, which focuses especially, but not exclusively, on the interwar avant-gardes of Austria, Czechoslovakia, Hungary, Poland, Romania, Slovenia, and Yugoslavia. A comparative framework is employed whenever lucrative to comprehend the East/Central European movements in the wider context of the European avant-garde. The course also traces the development and legacy (political and artistic) of these avant-gardes in their contemporary scenes. Plastic, verbal, and performative arts (including film) are studied.

Instructor(s): Malynne Sternstein Terms Offered: Spring

Equivalent Course(s): ARTH 25500, REES 33141, REES 23141, CMST 25100, CMST 35100

ARTH 35709. Picturing Moral Autonomy in China and Elsewhere. 100 Units.

This course examines how intellectuals in Preindustrial China maintained their independence, as well as their moral compass, in times of inordinate social and political pressure. Systematic thinking on this topic appears early in China, beginning with Confucius and Mencius, but was by no means limited to the Confucian tradition. Zhuangzi (late 4th c. BCE) devoted an entire chapter to the problem. This course will survey some important meditations on the topic from the Classical period, but will focus on the Song dynasty (960-1278) with its rich body of essays, poems, and paintings touching upon the problem of moral autonomy. To supplement our study of primary sources we'll read secondary sources on Song law, society, and government, as well as relevant secondary studies of European art. Later in the course we will read reflections on Song period Chinese essays by English radicals of the 18th century, and will wrap up with American classics by Henry David Thoreau, Ralph Waldo Emerson, and Wendell Berry. Along the way we will learn how to conduct "close readings" of both written and visual materials for clues to the deep, humanistic themes underlying artistic choice.

Instructor(s): M. Powers Terms Offered: Autumn

Equivalent Course(s): EALC 25709, EALC 35709, ARTH 25709

ARTH 36106. Exhibition in Practice II. 100 Units.

Students in this course will work together to install an exhibition at the Smart Museum of Art. Building on the work produced in ARTH 2/36015 Exhibition in Practice I (spring 2019), students collaborate to write exhibition texts, coordinate programming, and participate in the installation process. Workshopping texts, trouble-shooting, and hands-on activities will feature in class sessions. Readings for this course explore diverse ways to approach exhibition narratives, from museum labels to catalogue essays.

Instructor(s): L. Wilson Terms Offered: Autumn

Equivalent Course(s): ARTH 26106

ARTH 36110. Ways of Curating and Collecting. 100 Units.

This seminar takes stock of contemporary currents in curating and collecting practices at a time when we are experiencing rapid expansion of the museum sector internationally, and witnessing the growing ubiquity of "curation" within the spheres of leisure, culture, entertainment and tourism. Using institutions across campus, the city of Chicago and beyond as our primary locus, we will explore curatorial and collecting strategies employed by a variety of visual arts institutions and platforms from the scale of the single-room/single curator gallery, to the museum and the international biennial. We will consider how curatorial and exhibition-making practices have evolved from the latter half of the 20th century to the present day. We will consider the socio-cultural and political implications of curatorial work, and reflect on the shifting status of the art object within collecting and non-collecting institutions. Together we will explore significant curatorial projects at a local, national and international level; we will undertake site visits as well as play host to visiting curators, artists and thinkers. Course readings will feature the writings of seminal international curators as well as selections from historians and theorists in the field of curatorial studies. Students will work through a series of independent and collaborative assignments as well as a final project that integrates curatorial theory and practice.

Instructor(s): Y. Umolu Terms Offered: Winter

Equivalent Course(s): ARTV 20008, ARTH 26110, ARTV 30008

ARTH 36200. Magic and the Cinema. 100 Units.

This course will trace relations between motion pictures and traditions of magic, both as a theatrical entertainment and as a belief system. The invention of cinema's roots in the magic lantern and other "philosophical toys" which trick the senses into seeing visual illusions will be explored in relation to traditions of "Natural Magic" as well as a secularization of magical practices into entertainment from the Renaissance on. The early trick films of Méliès and others will be discussed in relation to the tradition of stage magic in the 19th century, as well as a particular reception of the magical nature of new technologies (electricity, photography, sound recording). The relation between cinema and hypnosis, both as a social concern and as metapsychological description of spectatorship will also be explored. A consideration of the appeal of magic systems of thought (spiritualism, theosophy, ritual magic) for Avant-Garde movement and their relation to experimental films by Epstein, Artaud, Deren, Anger, Smith, Fischinger, and others.

Equivalent Course(s): CMST 25600, CMST 35600, ARTH 26200

ARTH 36711. Florentine Topographies: Art, Architecture, and Urban Life in the Italian Renaissance City. 100 Units.

The site of some of the most widely recognizable monuments of western art history and the home to some of the most famous artists, writers, designers, thinkers, and cultural patrons of early modern culture, Florence has long occupied a central place in a larger pan-European discourse of Modernity, Beauty, and the Individual Subject. As a result, the city itself has come to occupy a mythic position as a central hub of Western intellectual culture: uprooted from its geographical specificity by the circulation of such proper names as Machiavelli, Leonardo, Michelangelo, and unmoored from its historical heritage by the disorienting complexities of modern mass tourism. Therefore, this course seeks to re-integrate the "Renaissance" into the urban context from which it emerged, to defamiliarize it so that it can be looked at from other perspectives. It focuses on the city itself as the protagonist of some of the most important experiments in art, architecture, and urban development and shows how they were intimately connected to a lively and engaged social body. By approaching images and monuments through the spatial practices by which they were encountered by Renaissance society (rituals of conflict, contests, economic exchange, religious devotion, urban politics, identity formation, among others), students will gain a more nuanced understanding of the links between a localized urban culture and a larger intercultural and cross-temporal exchange of ideas.

Instructor(s): N. Atkinson Terms Offered: Spring
Equivalent Course(s): ARCH 26711, ARTH 26711

ARTH 36791. Best in Show: Art History as Exhibition History. 100 Units.

In this course, I propose a reading of post-war art history as seen, in part, through the periodical prism of one of the field's most important, signature events - the five-yearly Documenta exhibition in Kassel, Germany. Starting with the founding 1955 edition organized by Arnold Bode and ending with the 2017 edition which I worked on as a curator, we will discuss one chapter of Documenta's history per class alongside related events like the Venice and Sao Paulo biennials and Skulptur. Projekte Münster, touching upon such key issues of contemporary art practice and theory as the dynamics of globalization, identity politics, the vagaries of market influence, history and memory and the pressures of the social realm on aesthetic experience. As a history of exhibition making and curatorial practice, the course will also draw on recent developments in museum culture and the everyday politics of the art world's various institutions, and will be recounted in part from the perspective of exhibition-making experience. The class will consist of hands-on curatorial exercises, as well as writing and reading assignments that mirror and follow the 64-year arc of our historical periodization.

Instructor(s): D. Roelstraete Terms Offered: Spring
Equivalent Course(s): ARTV 34265, ARTH 26791, ARTV 24265

ARTH 37301. Aesthetics: Phil/Photo/Film. 100 Units.

Equivalent Course(s): CMST 39300, PHIL 21100, CMST 29300, PHIL 31301, ARTH 27301

ARTH 37800. The Material Science of Art (Suzanne Deal Booth Conservation Seminar) 100 Units.

This course will introduce students to the methods, theories, and strategies of scientific approaches to studying art objects and consider the meaning of different materials and surfaces across artistic media. It will showcase new scholarship generated in the field of conservation science and object-based art history that draws its strength from the collaborative work among scientists, conservators, art historians, and theorists. Conservation science draws on the applied sciences and engineering to understand how to preserve the world's cultural heritage and forge connections between making and meaning. The course will explore scientific examinations to investigate the production and use of art objects. Focusing on material studies of paintings and sculptures, pigments as well as their binding media, students will learn about the material make-up of art objects by employing visual analysis alongside practical studies using scientific analysis and imaging on campus and at the Art Institute of Chicago. Readings will be drawn from a variety of disciplines, including material science and chemistry, art history, visual and material culture, anthropology, and philosophy.

Instructor(s): M. Kokkori Terms Offered: Spring
Note(s): Permission of instructor required for registration.
Equivalent Course(s): ARTH 27800

ARTH 38212. Photography in Africa and African Diaspora. 100 Units.

From photography in the 19th century to the present, this course explores how and why photography became central to arguments about the modernity of African visual art and the roles it has played throughout the continent, the diaspora, and beyond. Moving from one regional focus to the next, students examine photography's roles in expeditionary and ethnographic projects, identity formation, political activism, spirituality, documenting the landscape, and representing the fantastical and the everyday. This course will include visits to the Art Institute of Chicago among other area institutions.

Instructor(s): L. Wilson Terms Offered: Spring
Equivalent Course(s): ARTH 28212

ARTH 38500. History of International Cinema I: Silent Era. 100 Units.

This course provides a survey of the history of cinema from its emergence in the mid-1890s to the transition to sound in the late 1920s. We will examine the cinema as a set of aesthetic, social, technological, national, cultural, and industrial practices as they were exercised and developed during this 30-year span. Especially important for our examination will be the exchange of film techniques, practices, and cultures in an international context. We will also pursue questions related to the historiography of the cinema, and examine early attempts to theorize and account for the cinema as an artistic and social phenomenon.

Instructor(s): A. Field Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): CMST 28500, CMLT 22400, MAAD 18500, ARTV 20002, ENGL 48700, CMLT 32400, MAPH 33600, ARTH 28500, ENGL 29300, CMST 48500

ARTH 38600. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, CMST 48600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, ENGL 48900, MAAD 18600, REES 45005

ARTH 38702. Tales Retold? Modern & Contemporary Chinese Art. 100 Units.

Owing to its revolutionary transformations spanning the 20th and early 21st centuries, China offers a unique access point to exploring key issues in modern and contemporary art. Modern and contemporary artists from China and the Sinophone world have long confronted rather entrenched double-binds, crises of consciousness. We might consider this a double consciousness, on their part-consciousness of being artists in a globalizing context, on the one hand; of being political or national subjects, on the other. Organized thematically, this class will examine selections of artists, movements, and the discourses surrounding them, to unpack the mutual interrelation of key concepts, art and scholarly practices. Questions to be addressed include: How does art history and criticism currently deal with modern and contemporary Chinese art? How does the art world define this category of art practice; and vice versa, how do artists view the art world? Case studies will include artists practicing today as well as historical artists whose work has become a source for the present. While the class deals primarily with art in China, it will necessarily address the wider issues of globalization and the international institutional networks of contemporary art. Students will be encouraged to think broadly about comparative and inter-Asia relations, rather than dividing the globe into East and West.

Instructor(s): J. Lee Terms Offered: Spring

Equivalent Course(s): EALC 38702, EALC 28702, ARTH 28702

ARTH 38705. Christian Iconography. 100 Units.

In Christian culture, visual images have for many centuries played a pivotal role in ritual, devotion, intellectual thought, and religious instruction. The most important aims of this course are that students understand images convey meaning in very unique ways and learn how to decode their visual messages. The study of iconography encompasses a variety of methods used to identify the subject matter of a pictorial image, describe its contents, and analyze its discursive strategies in view of its original cultural context. We will cover some of the most important themes visualized in the arts of Christianity by analyzing imagery spanning different periods, geographical regions, pictorial media, and artistic techniques. While special emphasis is placed on the intersections of art and literature, we will also examine pictorial themes that are independent of a specific textual basis. Alongside the study of Christian iconography, this course will address broader issues of visual inquiry, such as patronage, viewer response, emotions, and gender roles. In this course, students will acquire a 'visual literacy' that will enable them to explore all kinds of works of art fruitfully as primary sources in their own right.

Instructor(s): Karin Krause Terms Offered: Winter

Prerequisite(s): P/Q: This course is open to all undergraduate students who are interested in the course topic.

You certainly do not need to be an adherent of the Christian faith to take this course. However, a basic familiarity with some of the foundational texts of Christianity (esp. the Bible) and its main (Biblical) protagonists is not a disadvantage.

Equivalent Course(s): RLST 28705, ARTH 28705, MDVL 28705

ARTH 39410. Dimensions of Citizenship: The Venice Architecture Biennale 2018. 100 Units.

In conjunction with the US pavilion at the 2018 Venice Architecture Biennale - co-commissioned by the University of Chicago and co-curated by Professor Niall Atkinson - this Gold Gorvy Traveling Seminar will explore the multiple relationships between architecture and citizenship both in contemporary practice and in historical perspective. The course will be centered around the pavilion's theme of architecture and citizenship at seven spatial scales: Citizen, Civic, Region, Nation, Globe, Network, Cosmos. Through these scales, students will engage critically with the works of participating artists, architects, and designers, works that address the spatial dimensions of belonging in contemporary society. Students will also explore the historical dimensions citizenship through Venice's complex history as a globally connected maritime empire that incorporated multiple linguistic, ethnic, and religious communities. Finally, the seminar will take account of the politics of national display at the root of the biennale itself and the relationship between historical and contemporary spatial experiences of citizenship and rights of abode, belonging and exile, migration and refuge, and the design of liminal spaces such as ships, ports of entry, quarantine centers, and ghettos as places of agonistic cultural exchange.

Instructor(s): N. Atkinson

Note(s): This is a traveling seminar; the course in its entirety will be taught Sept 4-25 in Venice. Registration is limited and by instructor consent only.

Equivalent Course(s): ARTH 29410

ARTH 39504. Art, Community, Activism. 100 Units.

there is no course description

Equivalent Course(s): ARTH 29504

ARTH 39800. Approaches To Art History. 100 Units.

This seminar will examine a range of methodological approaches to doing the work of art history. Through close reading of key texts, we will interrogate how various authors have constructed novel ways of seeing and understanding visual and material objects. Crucially, this course doesn't assume "theory" or "methodology" to be a set of texts we use to explicate or read works of art in specific ways. Rather, we investigate how each of our authors forges new concepts in response to an object's specific exigencies. Students need not self-identify as art historians to enroll in this seminar-it will be helpful for all students who want to think deeply and in self-reflexive ways about their own approaches to visual and material objects (still or moving images, sculpture, performance, architecture, etc.), particularly if those objects feel genre-bending, difficult to theorize, or recalcitrant in any way. Readings will include foundational texts by Erwin Panofsky, Alois Riegl, and Meyer Schapiro and more recent texts by Yves Alain Bois, Rosalind Krauss, T.J. Clark, Douglas Crimp, Anne Wagner, Darby English, and others (as determined by students' interests).

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Open to MAPH students concentrating in Art History. Others by consent only.

ARTH 39900. Methods and Issues in Cinema Studies. 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard.

Instructor(s): S.Skvirsky Terms Offered: Autumn

Equivalent Course(s): CMST 40000, MAPH 33000, ENGL 48000

ARTH 40010. Ruins. 100 Units.

"Ruins" will cover texts and images, from Thucydides to WWII, via the Reformation. We will include films (e.g. Rossellini's "Germany Year Zero"), art (e.g. H. Robert, Piranesi) archaeology, and the museum (Soane). On ruins writing, we will read Thucydides, Pausanias from within antiquity, the Enlightenment responses to the destruction and archaeological rediscovery of Pompeii, Diderot, Simmel, Freud on the mind as levels of ruins (Rome) and the analysis as reconstructive archaeologist as well as on the novel Gradiva and the Acropolis, the Romantic obsession with ruins, and the firebombing in WWII. We will also consider the photographing of ruins, and passages from the best-known works on photography (Benjamin, Sontag, Ritzen, Fried, Azoulay). The goal is to see how ruin gazing, and its depictions (textual, imagistic, photographic, etc.) change from the ancients (Greek and Roman), to the Romantic use of ruins as a source of (pleasurable) melancholy, to the technological "advances" in targeting and decimating civilian populations that describe the Second World War.

Equivalent Course(s): CDIN 40010, CMLT 40010, RLIT 40010

ARTH 40200. Art History Proseminar. 100 Units.

How do we do art history? What is it? What are its premises and where does it come from? This seminar will explore the historical foundations, formulations and applications of current art historical methods, as well as the foundations of the art historical discipline as it emerged from the late 19th and early 20th centuries. Both theory and practice will be considered through select texts, with special focus on art history as a distinct scholarly discipline today. Required of all first year ARTH PhD students.

Instructor(s): S. Estrin Terms Offered: Autumn

Note(s): Open to and required of first year Art History PhD students only.

ARTH 40204. Destruction of Images, Books & Artifacts in Europe and S. Asia. 100 Units.

The course offers a comparative perspective on European and South Asian iconoclasm. In the European tradition, iconoclasm was predominantly aimed at images, whereas in South Asian traditions it was also enacted upon books and buildings. The combination of these traditions will allow us to extend the usual understanding of iconoclasm as the destruction of images to a broader phenomenon of destruction of cultural artifacts and help question the theories of image as they have been independently developed in Europe and South Asia, and occasionally in conversation with one another. We will ask how and why, in the context of particular political imaginaries and material cultures, were certain objects singled out for iconoclasm? Also, who was considered to be entitled or authorized to commit their destruction? Through a choice of concrete examples of iconoclasm, we will query how religious and political motivations are defined, redefined, and intertwined in each particular case. We will approach the iconoclastic events in Europe and South Asia through the lenses of philology, history, and material culture. Class discussions will incorporate not only textual materials, but also the close collaborative study of images, objects, and film. Case studies will make use of objects in the Art Institute of Chicago and Special Collections at the University Library.

Equivalent Course(s): CMLT 50204, SALC 50204, CDIN 50204, RLCV 50204, SCTH 50204, HREL 50204

ARTH 40310. The Discovery of Paganism. 100 Units.

How do we know what we know about ancient religions? Historians of religion often begin by turning to texts: either sacred texts, or, in the absence of such scriptures, descriptions of belief and practice by observers from outside the faith. Archaeologists focus their attention on the spaces and traces of religious practice-or at least those that survive-while art historians begin by examining images of deities and religious rites. Yet we often fail to see the extent to which the questions which we ask of all of these diverse sources are conditioned by Christian rhetoric about pagan worship. In this course, we compare two moments when Christians encountered "pagans": during the initial Christian construction of a discourse on paganism (and, more broadly, a discourse on religion) during the late Roman empire and during the Spanish discovery of the New World. Our course examines silences and absences in the textual and material records, as well as the divergences between texts and objects, in order to further our understanding of ancient religious practice. We will begin to see the many ways in which, as scholars of religion, we are in effect still Christian theologians, paving the way for new approaches to the study of ancient religion.

Equivalent Course(s): HIST 64202, CLAS 44916, CDIN 40301, LACS 40301, ANCM 44916, HREL 40301, KNOW 40301

ARTH 40400. Ekphrasis: Art & Description. 100 Units.

This course explores the rich tradition of ekphrasis in Greco-Roman and Christian antiquity - as it ranges from vivid description in general to a specific engagement with works of art. While the prime focus will remain on texts from Greece and Rome (both prose and verse) - in order to establish what might be called the ancestry of a genre in the European tradition -- there will be opportunity in the final paper to range beyond this into questions of religious writing about art, comparative literature, art (history) writing and ekphrasis in other periods or contexts. The course is primarily intended for graduates - and a reading knowledge of Greek and Latin could not be described as a disadvantage! The course will be taught over 5 weeks in the Spring Quarter on an intensive schedule. It will be examined on the basis of a paper, due on a subject to be agreed and on a date to be agreed at the end of the Spring quarter.

Instructor(s): J. Elsner Terms Offered: Spring

Equivalent Course(s): BIBL 40400, NTEC 40400, CLAS 42600, RLCV 40400

ARTH 40585. Journeys Real & Virtual. Travel in the Pre-modern Mediterranean. 100 Units.

This course focuses on the art of travel in the Medieval and early modern Mediterranean. From the late Middle Ages through the sixteenth century, European pilgrimage to the Holy Land constituted some of the most advanced experiments in representing travel, describing foreign cities, and mapping out territories. Travel accounts represent the core material around which this course is structured along with images and maps in other contexts that such experiments influenced. Course material will span the fields of religion, art, literary, and urban history, encompassing historical geography, cartography, and cultural history. Students will engage directly with the verbal and visual modes that characterize the documentary legacy of mental and physical travel in order to come to terms with the different regimes of knowledge they construct as well as the cognitive demands they place on their audience. Through a comparison of techniques, students will explore the ways in which texts, images, and maps sought to understand human interaction, visualize geographical context, locate history, and make sense of the world beyond their drama of their local experience.

Instructor(s): Niall Atkinson and Karin Krause Terms Offered: Spring

Prerequisite(s): Consent required: Please email Prof. Atkinson or Prof. Krause for request form.

Equivalent Course(s): CDIN 45085, RLCV 45805, HCHR 45805, RLLT 33020, NEHC 30585, HIST 60705

ARTH 41315. Media Atmospheres: Art, Technology, and Environment in the 21st Century. 100 Units.

In the late 1990's and early 00's contemporary art seemed to turn towards design and architecture, leading many critics to claim that the boundaries between the practices of art and design were eroding. This course proposes a different line of inquiry, based on the fact that so many of the artworks in question were in fact hidden media machines, improvisations on a life environment increasingly situated in the dynamics of networked media technologies and their various modes of time production and -control. Elements of design and architecture were in other words enlisted in the construction of what we may call media atmospheres, everyday sensorial surrounds that addressed the intimate integration of bodies and real-time technologies in the information economy, a new modality of the capture of life forces that Michel Foucault called biopolitics. The course will be oriented around a close study of a select number of artistic positions, in addition to reading theoretical and critical texts that are important to the artists in question as well as to the larger field of discussion. Ultimately, the course is about a form of new media art less invested in technical invention than in new aesthetic techniques of social/environmental production.

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): CMST 47815

ARTH 41602. The Cult of Relics in Byzantium and Beyond. 100 Units.

The cult of relics played a vital role in Byzantine culture and, consequently, left a strong imprint on the artistic production. Not only did the veneration of relics find expression in personal devotion, but the image of the Byzantine court was largely modelled on the claim that the emperors possessed the most precious of all sacred remains, first and foremost those associated with the Passion of Christ and the Virgin Mary. The outstanding treasure of relics housed in the imperial palace significantly contributed to the understanding in the medieval Christian world of Constantinople as the "New Jerusalem." We will begin our investigation in the ancient Near East, where major centers of pilgrimage developed from the fourth century on. These sites considerably fueled the early Byzantine cult of relics and the associated artistic production. The chief focus of the seminar will be on the major urban centers of the Byzantine Empire, especially the capital city of Constantinople. We will closely study different types of reliquaries manufactured in the Byzantine Empire over the centuries and investigate how their design responded to devotional needs, ritual practice and political claims. Historical developments and primary texts (in English translation) will be addressed throughout to better understand the circumstances of the acquisition of relics and the motivations guiding their veneration.

Instructor(s): Karin Krause Terms Offered: Spring

Equivalent Course(s): HCHR 41604, RLVC 41604

ARTH 42205. The Holy Land in the Middle Ages. 100 Units.

This course will examine written and visual material testifying to the medieval encounters of the Abrahamic religions in a sacred landscape where the histories of Jews, Christians, and Muslims overlap. While bearing witness to the cultural wealth and religious pluralism that characterize the Holy Land during the Middle Ages, texts and visual artifacts from the period likewise testify to religious competition, conflict, loss, and exclusion. Among the primary textual sources we will read (in English translation) are accounts by pilgrims and other travellers to the Holy Land written between the fourth and fifteenth centuries, extracts from medieval chronicles, and eye-witness accounts drawn up during the period of the Crusades. These writings illuminate how individuals of different religious backgrounds experienced sacred space and rituals performed at various holy sites. On a broader scale, they offer insight into perceptions of religious identity, superiority, and "otherness." Last, but not least, these texts inform us about the physical appearance of sites and buildings that no longer exist or have undergone multiple refurbishments. In addition to the textual material, we will study art and architecture created in the Holy Land for different religious communities (e.g., synagogues and their richly decorated mosaic floors, sites and souvenirs of Christian pilgrimage, major works of Islamic art and architecture). The sacred sites and dynamic history of the Holy Land have of course stimulated human imagination and creativity well beyond its geographical confines as well. We will thus also study phenomena of its reception in medieval Europe as manifest, for instance, in the illumination of manuscripts, stained glass windows, architectural replicas of the Holy Sepulchre, narratives of the "Holy Grail," or notions of the "Heavenly Jerusalem."

Equivalent Course(s): RLVC 45200, HCHR 45200

ARTH 42905. Modernism on the Margins. 100 Units.

This seminar explores approaches to modernism outside of the Euro-American tradition. Focusing primarily, but not exclusively, on Mexico and Brazil, we will attend to how both modern art and modernity have been conceptualized in the region by art historians, anthropologists, historians, and the artists themselves. Questions and themes to be explored include: the distinct relationships between modernism, modernity, and modernization outside of Europe, the applicability of postcolonial theory in Latin America, the temporality and teleology of modernism, the adaptation of European social, political, and artistic forms, the impact of postmodernism and globalization, and the potential dissonance between theories of peripheral or alternative modernisms and the practices of artists. Finally, we'll ask if and how any of this is pertinent in the twenty-first century. Authors to be studied might include Timothy Mitchell, Néstor García Canclini, Roberto Schwarz, Beatriz Sarlo, Enrique Dusse, Nelly Richard, Arjun Appadurai, George Yúdice, Ticio Escobar, and Eduardo Viveiros de Castro. Although we will concentrate on Latin America for most of the course, comparative studies from other regions will be included and research papers dealing with theories or practices from other world areas are welcome.

Instructor(s): M. Sullivan Terms Offered: Spring

Equivalent Course(s): LACS 42905

ARTH 42911. 21st Century Art. 100 Units.

This course will consider the practice and theory of visual art in the late twentieth and twenty-first centuries.

Instructor(s): M.J. Jackson Terms Offered: Spring

Equivalent Course(s): ARTV 39901

ARTH 43701. History in the Image. 100 Units.

This seminar undertakes a study of primarily post-World War II French and Belgian film and art movements in order to query the different status and conceptualization of the image and its relationship to history. We will begin our study with a brief look into pre-WWII of avant-garde art and film movements, and classic theories of the avant-garde. Turning our attention to late Surrealist practices, and the rise of neo-avant-garde movements such as Lettrism and the Situationist International, we will grapple with how these groups both understood the stakes of the image and history, as well as developed theoretical models to transform the agency of both within their political aesthetics. We will subsequently ask similar questions of the films and theories that eventually define the French New Wave before moving on to think about social documentary, politically militant image production, and collective film and art practices.

Instructor(s): Jennifer Wild Terms Offered: Spring

Note(s): Reading knowledge of French is not required, but may prove beneficial. Screenings are mandatory. With some possible exceptions, all films will be subtitled. Students enrolled through the FREN section will be required to complete all reading and writing in French.

Equivalent Course(s): FREN 43713, CMST 63701

ARTH 44002. COSI Objects & Materials Seminar. 100 Units.

Team-taught between Northwestern, the Art Institute of Chicago and University of Chicago, this course focuses on sustained, close engagement with art objects in the AIC collection and the methods and questions such inquiry raises. Students will be introduced to basic techniques of stylistic and scientific analysis as well as recent theoretical debates that resituate art history as a study of physical things as well as their disembodied images. Required for all first-year art history graduate students.

Instructor(s): C. Foxwell Terms Offered: Winter

Note(s): Open to and required of first year art history PhD students only. This course will meet at the Art Institute of Chicago.

ARTH 44013. Expanded Arts 1958-1978. 100 Units.

Equivalent Course(s): MAPH 44013

ARTH 44014. The Veneration of Icons in Byzantium: History/Theory/Practice. 100 Units.

In order to appreciate the pivotal religious significance icons had in Byzantium for private devotion, in the liturgy, in civic ritual, and in military campaigns, we will survey the visual evidence along with a vast array of written sources. We will explore the origins of the Christian cult of icons in the Early Byzantine period and its roots in the Greco-Roman world of paganism. Through the close analysis of icons executed over the centuries in different artistic techniques, we will examine matters of iconography, style and aesthetics. We will also have a close look at image theory, as developed by Byzantine theologians and codified in the era of Iconoclasm.

Instructor(s): Karin Krause Terms Offered: Spring

Equivalent Course(s): RLST 28704, RLVC 44004, HCHR 44004, ARTH 24014

ARTH 44616. Music and Images, 1450 - 1650. 100 Units.

Equivalent Course(s): MUSI 44616

ARTH 45885. Practices of Classicism in the French Seventeenth Century. 100 Units.

This seminar has two goals. One is to combine the text-based tradition of French literary studies with the image-based, comparative tradition of art history-and, in so doing, to change the taxonomies of both. The other is to re-evaluate French Classicism by attending to practices of reading, writing, performing, looking and making. The seminar's breadth is designed to appeal to all graduate students interested in the theory and history of aesthetics, and the interleaving of visual and literary evidence. Looking will be no less important than reading, as we will conduct sessions with original objects in the Art Institute and in Regenstein Special Collections. Authors studied will include Corneille, Molière, La Fontaine, Pascal, and Descartes; among the artists, Poussin, Claude Lorrain, La Tour, and Callot. Critical readings will range from Leo Spitzer to Louis Marin and Foucault. The seminar will be conducted in English; all primary texts will be made available in both English translation and, for those with reading knowledge, in the French original. This seminar will travel to Paris during exam week (March 13-21, 2020); airfare and lodging covered by university. Consent of instructors required.

Instructor(s): Larry Norman and Richard Neer Terms Offered: Winter
Equivalent Course(s): CDIN 44420, FREN 34420, CMLT 44410, TAPS 44420

ARTH 46005. Algorithms and Aesthetics. 100 Units.

This class will explore questions raised by the use of algorithms, and similar systemic processes, in the arts. Recent developments in computational tools have dramatically increased the availability, and complexity, of algorithmic methods. This seminar will reach back to examine cases-with and without electronic computation-over the last century in a range of artistic fields, including architecture, painting, sculpture, music, and literature. We will consider the challenges that algorithmic methods present for concepts such as authorship, intentionality, originality, meaning, beauty, taste, and art itself.

Equivalent Course(s): CDIN 46005

ARTH 46307. Medieval Scandinavia: Art, Architecture, & Artifacts. 100 Units.

This seminar will examine works of art, architecture and artifacts produced in Scandinavia from the early Middle Ages to the close of the medieval period. The seminar will not survey the rich and varied artistic production of medieval Scandinavian lands, but rather will focus on select works of architecture, art, as well as artifacts, in relation to recent scholarship, discoveries, and debates in the disciplines of art history, archaeology, material culture studies, and numismatics. In addition to assigned readings and seminar discussions, students will be expected to undertake intensive independent reading and research in preparation for a seminar trip to Norway, Sweden, & Denmark in the summer of 2020.

Instructor(s): A. Kumler Terms Offered: Winter

Note(s): This is a traveling seminar and enrollment is limited. Registration by instructor consent only. All enrolled students must plan to participate in the seminar trip to Scandinavia in Summer 2020.

ARTH 47211. What Was *Mise-en-scène*? 100 Units.

Mise-en-scène is often understood as a synonym for the act of directing, especially in theater. In film style it is associated with the importance accorded to the placement of props and characters within the film frame, usually in combination with camera movement. This concept was especially important in film criticism of the fifties and sixties and often connected with key post-WWII filmmakers such as Nicholas Ray, Douglas Sirk and Otto Preminger. This seminar will explore the concept both as historical critical concept, and as an ongoing way to discuss the nature of film style.

Equivalent Course(s): CMST 67211

ARTH 47411. Film Theory and the Competition of Modernisms. 100 Units.

This seminar explores the emergence of film theory during the period between the mid-1960s and mid-1970s. Part of the aim is historiographic: to look at accounts of how and why something called Film Theory emerged in the wake of a set of intellectual, political, and institutional forces. The main focus of the seminar, however, will be to create an alternate approach to a set of questions that-as the recent resurgence of work on Film Theory show-have not gone away, and also to pick up a set of questions and topics that got left by the wayside. We'll examine the idea that film theory arose in these years as a struggle over the legacy and meaning of modernism, especially an inheritance of modernist movements in the 1920s and 1930s. Among the central ideas to be explored is that the line between theory and criticism was extremely porous in this period, and that film theory emerged out of a sustained dialogue with debates in art history. The seminar will trace three strands of film theory that laid claim to different modernist traditions: one exemplified by Stanley Cavell and Michael Fried; a second by Annette Michelson and Rosalind Krauss; and a third by Peter Wollen and what has been called "Screen Theory."

Instructor(s): D.Morgan Terms Offered: Spring

Note(s): Readings will position central texts from these strands of theory alongside their modernist influences, from Cubism to Duchamp to Dada to Benjamin to Brecht. The debates between major journals of the time, including *Art Forum*, *October*, and *Screen*, will be central to this history. Screenings will focus on work from Classical Hollywood, the rise of global new waves, and the American avant-garde.

Equivalent Course(s): CMST 67411

ARTH 47911. Art and Public Life. 100 Units.

The aim of this seminar-colloquium will be to work through some of the most advanced thinking on ideas about publics and their relation to questions of community, politics, society, culture, and the arts. From John Dewey through Hannah Arendt and Jurgen Habermas, the notion of the public has remained central to a wide variety of debates in the humanities and social sciences. What is a public? How are publics constituted? What is the role of real and virtual space, architectural design, urban planning, and technical media, in the formation of publics? And, most centrally for our purposes, what role can and do the arts play in the emergence of various kinds of publics? The colloquium aspect of the course will involve visiting speakers from a variety of disciplines, both from the University of Chicago faculty, and from elsewhere.

Instructor(s): W.J.T. Mitchell, T. Gates Terms Offered: Autumn

Equivalent Course(s): ENGL 32821, ARTV 37911, CMST 37802, MUSI 35014

ARTH 48210. From Xi'an to Dunhuang: Following Buddhist Traces in Medieval China (UChicago/Getty Travel Seminar) 100 Units.

The majority of Buddhist traces in medieval China are found in the region along the ancient Silk Road between the Tang capital city, today's Xi'an, and the world-renowned Buddhist rock-cut cave site, Dunhuang. The surviving traces include Buddhist caves, monasteries, pagodas, tombs, and underground relic crypts. Many of the sites are well known and worth a revisit, while many others still await more scholarly attention and study. The three-week traveling seminar provides an opportunity for participants to investigate these Buddhist sites collectively, as well as artworks uncovered from them, tracing and mapping their historical, cultural, religious, and geographical relations, while studying their diverse artistic productions in different media (murals, sculptures, architecture), materials, and scales across different periods and regions. Guest speakers, including renowned Chinese scholars and local experts, will be invited to join each of the two parts of the three-week seminar in Xi'an and Dunhuang. Participants will also be asked to share their work and exchange ideas with scholars and students from local universities and research institutions.

Instructor(s): W. Lin Terms Offered: Autumn

Prerequisite(s): This is a traveling seminar; instructor consent is required for registration.

ARTH 48301. Aesthetics of French Classicism. 100 Units.

Though "aesthetic" philosophy first developed as an autonomous field in the mid-eighteenth century, it has important roots in earlier eighteenth- and seventeenth-century debates concerning literature and the arts. In the wake of Cartesian rationalism, could reasoned method be reconciled with non-rational creativity, or decorous order with the unruly "sublime"? Just what kind of "truth" was revealed by poetry or painting? We will consider the relation between literature and other media (including music, opera, and the visual arts) and gauge the impact of French classical criticism on the broader European scene. Readings will include works by Descartes, Pascal, Boileau, Molière, La Fontaine, Félibien, Du Bos, Addison, Hutcheson, Vico, Montesquieu.

Instructor(s): L. Norman Terms Offered: Spring

Prerequisite(s): Undergrads admitted with permission of instructor.

Note(s): Course will be conducted in French; students not taking course for French credit may do written work and class presentations in English.

Equivalent Course(s): REMS 37000, FREN 37000, CMLT 38600, SCTL 37000

ARTH 48809. Trompe l'oeil: Cognition and Depiction in Western Painting. 100 Units.

This course offers a focused examination of trompe l'oeil, a category of painting that is typically associated with the aims of illusion or deception. Yet who, or rather what set of criteria, adjudicates what counts as an illusion or deception in the first place? Indeed, why are illusion or deception even the appropriate or operative terms here? And how might we begin to attend in an historical fashion to the phenomenological question of how human agents, whether in the distant or even the more recent past, saw such pictures as pictures? For many art historians as well as philosophers and anthropologists of art, the historical emergence of trompe l'oeil constitutes a somewhat paradoxical phenomenon. On one hand, it counts as evidence for a natural-historical revolution in human depictive practices and cognition; on the other, it is an extreme, essentially transhistorical case of picture-making and perception. We will look at works spanning from ancient Roman wall-painting to Dutch Golden Age still life to the immersive environments of contemporary art through various methodological approaches including the philosophy and psychology of depiction, psychoanalysis, ethology (the study of animal behavior), and so-called "neuroarthistory."

Instructor(s): P. Crowley Terms Offered: Winter

Equivalent Course(s): KNOW 48809

ARTH 48905. Style and Performance from Stage to Screen. 100 Units.

Actor is the oldest profession among arts. Cinema is the youngest art there is. What happens with faces, gestures, monologues, and voices; ancient skills like dance or mime; grand histrionics etc. when arts of performance hit the medium of screen? This course will focus on the history of acting styles in silent films, mapping "national" styles of acting that emerged during the 1910s (American, Danish, Italian, Russian) and various "acting schools" that proliferated during the 1920s ("Expressionist acting," "Kuleshov's Workshop," et al.). We will discuss film acting in the context of various systems of stage acting (Delsarte, Stanislavsky, Meyerhold) and the visual arts.

Equivalent Course(s): CMST 68400

ARTH 49800. Independent Research: Art. 100 Units.

Individualized study focused on PhD research in Art History. This course can also be used as the preliminary exam reading course.

Instructor(s): Staff Terms Offered: Autumn Spring Winter

ARTH 49808. Qualifying Paper Course I. 100 Units.

Individualized study for Art History students working on their Qualifying Paper; first of two quarters.

Instructor(s): Staff Terms Offered: Autumn, Spring, Winter

ARTH 49809. Qualifying Paper Course II. 100 Units.

Individualized study for Art History students working on their Qualifying Paper; first of two quarters.

Instructor(s): Staff Terms Offered: Autumn, Spring, Winter

ARTH 50100. Teaching Colloquium. 100 Units.**ARTH 50101. Teaching Colloquium. 100 Units.**

Led by a faculty member each fall, this seminar meets weekly for 80 minutes, to address various topics through discussion with visitors (especially department faculty members) and occasionally through discussion of assigned readings. On the premise that one learns the most about teaching not well in advance but rather by reflecting with peer and senior colleagues on techniques and problems when one is in the midst of the challenge, this forum is meant to address participants' specific concerns and experiences, especially those related to art history. The quarter's topics are determined with student input and may include: the structure of the art history college core course program in which all faculty and students teach; the jobs of course assistant and writing intern; instructor authority and classroom dynamics; leading discussion; effective lecturing; strategic use of pictures in classroom teaching; small-group class projects; designing and grading assignments; designing syllabi. From year to year, the colloquium may address similar topics but the emphasis and tips will change depending on the participants. The department requires third-year students to participate fully in the colloquium, register for credit, and earn a Pass. More advanced students who have previously taken the colloquium are welcome to return on an occasional or regular basis to share experiences, strategies, and to seek advice on new teaching challenges.

Instructor(s): W. Lin Terms Offered: Autumn

ARTH 50200. Dissertation Workshop. 100 Units.

This course is conducted by a faculty member every spring to introduce third-year students to the tasks of preparing grant proposals and applications. The aim of the workshop is to help you produce a finished dissertation proposal by the early autumn of your fourth year and to prepare you to apply for grants at that time. The department requires third-year students to participate fully in the workshop, register for credit, and earn a Pass.

Instructor(s): W. Lin Terms Offered: Spring

Note(s): Open to third year art history PhD students only.

ARTH 50400. Logic, Truth, and Pictures. 100 Units.

The course aims at the logic of pictures, but because it is controversial whether such a topic exists, or should exist at all (some arguing that pictures are allogical, others that they require a logic *sui generis*), the course will be less a primer in "visual logic" or "logic of artifacts" than a preliminary investigation of what sets pictures apart from and how they are like other modes of thinking. Resemblance, reference, and fiction will be recurring topics; we begin with questions about the nature and peculiarity of pictures and move on to the prospects of arguing about and through pictures, concluding with the questions of their relation to truth. We will actually look at pictures besides talking about them. We will also ask what kind of objects beside conventional two-dimensional images and sculptures might usefully be called pictures. Reading will include classics (Plato, Gombrich), as well as some of the instructor's own work in progress, based on the ideas of Gottlob Frege.

Equivalent Course(s): SCTH 50400

ARTH 70000. Advanced Study: Art History. 300.00 Units.

Advanced Study: Art History



DEPARTMENT OF CINEMA AND MEDIA STUDIES

Department Website: <http://cms.uchicago.edu>

Core Faculty

Chair

Daniel Morgan

Professors

- Robert Bird
- James Chandler
- David Levin
- Richard Neer
- D.N. Rodowick
- Jacqueline Stewart

Associate Professors

- Patrick Jagoda
- Kara Keeling
- Rochona Majumdar
- Jennifer Wild

Assistant Professors

- Salomé Skvirsky

Professor of Practice in the Arts

- Judy Hoffman

Lecturers

- Dominique Bluher
- Marc Downie
- Thomas Comerford

Visiting Faculty & Associated Fellows

- Nicholas Baer, Society of Fellows and Collegiate Assistant Professor
- Nadine Chan, Society of Fellows and Collegiate Assistant Professor
- Joao Pedro Chaopo, Post-Doctoral Fellow - Maria Sklodowska-Curie Fellowship
- Jordan Schonig, Post-Doctoral Teaching Fellow in the Humanities
- James Rosenow, Post-Doctoral Teaching Fellow in the Humanities

Affiliated Faculty

- Lauren Berlant, Department of English Language and Literature
- James Conant, Department of Philosophy
- Berthold Hoeckner, Department of Music
- Paola Iovene, East Asian Languages and Civilizations
- Loren Kruger, Department of English Language and Literature
- Laura Letinsky, Department of Visual Arts
- Constantine Nakassis, Department of Anthropology
- Robert Pippin, Department of Philosophy
- Malynne Sternstein, Department of Slavic Languages and Literature
- Catherine Sullivan, Department of Visual Arts

Emeritus Faculty

- Tom Gunning
- Yuri Tsivian
- Rebecca West

The Department of Cinema and Media Studies offers a PhD program that focuses on the history, theory, and criticism of film and related media. Faculty are drawn from a wide range of departments and disciplines, primarily in the humanities. In addition to offering its own doctoral degree, the department offers courses and guidance to students who specialize in film and related media within other graduate programs or who pursue a joint degree.

Centering on the cinema, the graduate program provides students with the critical skills, research methods, and an understanding of the debates that have developed within cinema studies as a discrete discipline. At the same time, the study of cinema and related media mandates an interdisciplinary approach in a number of respects. The aesthetics of film is inextricably linked to the cultural, social, political, and economic configurations within which the cinema emerged and which it in turn has shaped. Likewise, the history of the cinema cannot be separated from its interaction with other media. Just as it is part of a wholly new culture of moving images and sounds that includes television, video, and digital technologies, the cinema draws on earlier practices of instantaneous photography and sound recording and, in a wider sense, those media that are more often described as the fine arts (painting, sculpture, architecture, literature, theater, and music). Finally, the interdisciplinary orientation of the program entails an emphasis on the diversity of film and media practices in different national and transnational contexts and periods and thus an understanding of the cinema as a historically variable and rich cultural form.

The Film Studies Center, located on the third floor of Cobb Hall, serves as a resource for course related and individual research and as a forum for cinema and media related activities.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students are expected to complete seventeen courses during their course of study, of which a minimum of twelve have to be listed among the offerings of the Department of Cinema and Media Studies. Courses must be taken for a quality letter grade; pass/fail is not an option (with the acceptance of CMST 69900 Pedagogy).

1. Four (4) required courses originating in the department:
 - CMST 40000 Methods and Issues in Cinema Studies: an introduction to research methods, key concepts, and theoretical frameworks, using case studies to introduce students to debates and issues in the field; offered during Autumn Quarter each year.
 - CMST 48500 History of International Cinema I: Silent Era, and CMST 48600 History of International Cinema II: Sound Era to 1960: a two-quarter survey course that is designed as both a beginning-level graduate and an upper-level undergraduate course; offered in Autumn Quarter [Part I] and Winter Quarter [Part II] each year.
 - CMST 69900 Pedagogy: The Way We Teach Film: an introduction to pedagogical methods in the field of Cinema and Media Studies. This course takes place over the course of one (1) full academic year, meeting roughly three to four times per quarter; offered in alternating academic years for students in years 2 and year 3 of the PhD program.
2. Five (5) elective courses that either originate in or are cross-listed with the Department of Cinema and Media Studies. Only courses with a CMST cross-list can count towards this requirement, even if the course is taught by a CMS faculty member through another department. These courses should ideally fit into the overarching research goals of the student.
3. Three (3) advanced-level CMS seminars (600-level) - graduate seminars taught by CMS faculty are the only courses which receive a 600-level designation. CMST 69900: Pedagogy does not count towards the advanced course requirement.
4. Five (5) elective courses that can originate in other departments and may or may not cover cinema related subjects. Students should use this coursework requirement to work with faculty members outside of CMS and add interdisciplinary elements to their own scholarship.

Please note that language courses are not counted towards fulfilling coursework requirements.

STUDENTS WHO ENTER WITH AN MA

PhD students entering the department with a master's degree from another institution (or from within the University of Chicago via the MAPH program) may request to be exempt from some coursework requirements. Such requests are handled on a case-by-case basis, but students may not receive a waiver for more than three (3) courses. Students must show the relevance of a course in the field of cinema studies in order to qualify for such an exemption. Courses should be master's / graduate level only - undergraduate courses will not be acceptable. To request a coursework waiver, students should send an email to the DGS and include the syllabus for each course and transcripts showing the grade earned by the student. If a waiver is approved by the DGS, the student will be informed directly.

FOREIGN LANGUAGE REQUIREMENT

Given the highly international nature of the field of cinema and media studies, students must demonstrate proficiency in two (2) modern foreign languages by earning High Passes ("P+") on the University's Foreign Language Reading Examinations. The first of these languages must be either French or German, and proficiency should be demonstrated by the end of Autumn Quarter in year 2 of the PhD program. The second language

will be chosen in consultation with the DGS, and proficiency must be demonstrated before the student will be permitted to take their fields examinations.

Students may also fulfill language requirements by receiving an A or A- grade in a one-quarter graduate course - FREN 33333 or GRMN 33300 for example. Completion of the course with a grade of A or A- means the students does not need to take a language examination.

- Students who are native-speakers of a language other than English should consult with the DGS during their first year in the program whether a waiver of a language requirement is possible.

ORAL FIELDS EXAMINATIONS

By the end of their third year in the program, students should have taken their Oral Field Examinations. All coursework and foreign language requirements must be completed prior to taking the oral fields examinations. The purpose of this examination is to ascertain a student's readiness to proceed from advanced formal coursework to devising a dissertation project, and ensure that a student has sufficient command of several fields to teach and to generate new research projects.

- The exam is comprised of five parts - three (3) written exams (one for each list), a syllabus for an undergraduate course of 10 weeks based on one or more field lists, and an oral exam. The student will select an exam committee consisting of three faculty members in the relevant fields in consultation with the DGS.
- Students should keep in mind that two members of the exam committee must be faculty in the Department of Cinema and Media Studies.

GRADUATE TEACHING

Teaching obligations are integral to preparing students for the world of professional academic, enabling students to begin teaching before starting professional careers. Teaching in the department, whether as a course assistant (CA) or as a lecturer in a free-standing course count towards fulfillment of a student's teaching obligations. Teaching outside of the department - in the writing program, in the College Core, or as a MAPH CA or Preceptor are counted towards Fellowship obligations, but the department will still anticipate a student completing their teaching commitments in CMS. The DGS might recommend deferring teaching assignments for a student, depending on their academic standing in the program.

- Further information on teaching in CMS can be found in the Graduate Student Handbook (<https://wiki.uchicago.edu/display/DeptCMS/Graduate+Student+Handbook?preview=/185011332/185011337/CMS%20Graduate%20Student%20Handbook%202017-2018.pdf>).

FELLOWSHIPS

Students admitted to the PhD program, both domestic and international, are awarded a six year funding package that includes a stipend, tuition, and health insurance. The Division holds teaching training as a vital part of the educational experience at the University of Chicago, so all fellowships include required teaching components.

- For information regarding fellowships outside of the GAI package, please visit the 'Internal Fellowships (<https://humanities.uchicago.edu/students/financial-aid/fellowships/internal-fellowships/>)' on the Division of the Humanities site.

THE DISSERTATION PROPOSAL AND REACHING CANDIDACY

In order to be admitted to candidacy, students must write a dissertation proposal under the supervision of their dissertation committee. Students are expected to reach candidacy in year 3 or 4, and must have reached candidacy by the start of year 6 (please check with Department Staff for specific details).

DISSERTATION DEFENSE AND GRADUATION

Upon completion of the dissertation, the student will defend it orally before the members of the dissertation committee, the Cinema and Media Studies faculty, and their colleagues in the PhD program. Once the dissertation is approved by the student's committee, the student is eligible to graduate.

THE DEGREE OF MASTER OF ARTS

Students seeking master's level study should apply to the Master of Arts Program in the Humanities (<https://maph.uchicago.edu>) (MAPH); a three-quarter program of interdisciplinary study. Students build their own curriculum with graduate-level courses in any humanities department. Students choosing to focus in Cinema and Media Studies would take courses within the department and complete their thesis with a faculty advisor.

GRADUATE COURSES IN CINEMA AND MEDIA STUDIES

CMST 30430. Gender, Sexuality, Imagination. 100 Units.

This course explores the relationships between theories of the imagination and those of gender and sexuality, with a particular emphasis on the relevance of this exploration to cinema and media studies.

Instructor(s): K.Keeling Terms Offered: Winter

Equivalent Course(s): CMST 20430, GNSE 30430, MAAD 10430, GNSE 20430

CMST 31082. African-American Documentary. 100 Units.

Though a "documentary impulse" can be traced in Black cinema from actualities of Black soldiers in the 1910s to the social realism of contemporary fiction films, documentary is a distinct form of persuasive media making that relies on evidence and invites performances of expertise and authenticity. Documentary conventions and production contexts have emphasized giving voice to marginalized subjects, allowing little space for Black people to craft their own systems representation, distribution and exhibition. Watching films as varied as *The Negro Soldier* (1944), *Still a Brother: Inside the Negro Middle Class* (1968), *Eyes on the Prize* (1987-1990), *Four Little Girls* (1997) and *13th* (2016), we will consider how documentary film form and culture have been used, critiqued and transformed by Black artists, activists and intellectuals seeking to document Black lives, investigate Black subjectivities, and affect social change. We will look at works and careers of prolific documentarians (William Greaves, Madeline Anderson, St. Clair Bourne, Henry Hampton, Marlon Riggs, Shola Lynch), filmmakers who move between fiction and documentary (Spike Lee, Charles Burnett, Yvonne Welbon, Ava DuVernay) and artists who work at provocative intersections of experimental and documentary film and video (Camille Billops and James V. Hatch, Barbara McCullough, Kevin Jerome Everson, Martine Syms). Class work includes developing a pitch for a documentary about Black documentary.

Instructor(s): J. Stewart Terms Offered: Winter

Equivalent Course(s): CRES 31082, CMST 21082, CRES 21082

CMST 31703. Weimar Cinema. 100 Units.

German films between the end of World War I and the establishment of the Third Reich in 1933 are extraordinarily eclectic and intensely inventive, encompassing horror film, socially conscious dramas, expressionist fantasies, experimental documentary, early proto-fascist and anti-fascist films, and that ur-German invention, the mountain film. We will consider some of the most important works of the period, including films by Fritz Lang, Ernst Lubitsch, G.W. Pabst, F.W. Murnau, Arnold Fanck, Walter Ruttmann, and Josef von Sternberg, examining their context, style, reception, formal achievements and historical significance.

Instructor(s): David Levin Terms Offered: Spring

Equivalent Course(s): CMST 21703, GRMN 37710, GRMN 27710

CMST 31801. Chicago Film History. 100 Units.

This course will screen and discuss films made mostly by Chicagoans, concentrating on the period after WWII, until 1980 when Hollywood began using Chicago as a location. By examining various genres, including those not normally interrogated by academics, such as educational and industrial films, we will consider whether there is a Chicago style of filmmaking. Technological advances that enabled both film and video to escape the restrictions of the studio and go hand-held, into city streets and homes, will be discussed. If there is a Chicago style of filmmaking, one must look at the landscape of the city—the design, the politics, the cultures and labor of its people and how they live their lives. The protagonists and villains of Chicago stories are the politicians and community organizers, our locations are the neighborhoods, and the set designers are Mies Van Der Rohe and the Chicago Housing Authority.

Instructor(s): J. Hoffman Terms Offered: Spring

Equivalent Course(s): ARTV 26750, HMRT 35104, CMST 21801, ARTV 36750, HMRT 25104

CMST 32119. Richard Wagner's Ring of the Nibelung in Performance. 100 Units.

This seminar, open to undergraduates and beginning graduate students, serves as a critical introduction to and intensive exploration of Richard Wagner's 19th century tetralogy. In addition to critical readings (e.g., by Wagner, Adorno, Nietzsche, Badiou, Dahlhaus, et al.) and screenings of a host of productions, we will travel downtown to Lyric Opera to attend performances of the Ring cycle in David Pountney's new production. Our discussions of the Chicago production will be supplemented by conversations with members of the Lyric Opera production team, including Anthony Freud, Lyric Opera's General Director. No previous knowledge is required although a curiosity about opera, German culture, media history, and/or theater & performance studies will be essential.

Instructor(s): David Levin Terms Offered: Spring

Equivalent Course(s): MUSI 24520, FNLD 23419, GRMN 23419, TAPS 26519, MUSI 32520, CMST 22119, TAPS 36519, GRMN 33419

CMST 32235. Revolutionary Romance in Socialist China. 100 Units.

One of the goals of the socialist revolution was to transform social relations, not only those between classes but also family and romantic relations. One of the first laws that the Chinese Communist Party issued after the founding of the People's Republic was the New Marriage Law, which banned arranged marriages, concubinage, and arrangements involving minors. 1950s cinema and literature advertised romantic love as an important achievement of the new society. At the same time, loyalty to the Party and to the collectivity were also core values that the media emphasized. In this class, we will look at how literature and cinema instructed viewers on how to select one's object of love in Revolutionary China, and how love for a romantic partner, for the party, and for the people were differently foregrounded at specific historical moments. How did ideas of romantic love change from the 1940s to the 1980s, and how did cinema contribute to promoting them? What forms of intimacy and models of attachment characterized revolutionary romance? Which kind of person constituted an ideal romantic partner? Who was to be loved, how, and why? Should one orient one's passion toward one person, many, or none?

Instructor(s): P. Iovene Terms Offered: Winter

Equivalent Course(s): GNSE 22235, GNSE 32235, EALC 32235, EALC 22235, CMST 22235

CMST 32507. Cinema and the Holocaust. 100 Units.

Focuses on cinematic responses by several leading film directors from East & Central Europe to a central event of 20th century history -- the Holocaust. Nazis began a cinematic documentation of WWII at its onset, positioning cameras in places of actual atrocities. Documentary footage produced was framed by hostile propagandistic schemes; contrary to this 'method', Holocaust feature films are all but a representation of Jewish genocide produced after the actual traumatic events. This class aims at discussing the challenge of representing the Jewish genocide which has often been defined as un-representable. Because of this challenge, Holocaust films raise questions of ethical responsibility for cinematic production & a search for relevant artistic means with which to engage post-traumatic representation. Therefore, among major tropes we will analyze voyeuristic evocation of death & suffering; a truthful representation of violence versus purported necessity of its cinematic aestheticization; intertwined notions of chance & hope as conditions of survival versus hagiographic representation of victims. The main goal is to grasp the potential of cinema for deepening our understanding of the Holocaust, the course simultaneously explores extensive & continuous cinematic production of the genre & its historical development in various European countries, to mention the impact of censorship by official ideologies in the Soviet Union, Poland, Hungary, & Czechoslovakia during the Cold War.

Instructor(s): Bozena Shallcross Terms Offered: Winter

Note(s): Course requirements: film screenings, class participation, reading assignments, one class presentation, and a final project. All readings for the core texts are in English; they can be downloaded from Canvas.

Equivalent Course(s): JWSC 29550, REES 27027, REES 37027, CMST 22507

CMST 33500. Pasolini. 100 Units.

This course examines each aspect of Pasolini's artistic production according to the most recent literary and cultural theories, including Gender Studies. We shall analyze his poetry (in particular "Le Ceneri di Gramsci" and "Poesie informa di rosa"), some of his novels ("Ragazzi di vita," "Una vita violenta," "Teorema," "Petrolino"), and his numerous essays on the relationship between standard Italian and dialects, semiotics and cinema, and the role of intellectuals in contemporary Western culture. We shall also discuss the following films: "Accattone," "La ricotta," "Edipo Re," "Teorema," and "Salo".

Instructor(s): A. Maggi Terms Offered: Winter

Equivalent Course(s): ITAL 38400, CMST 23500, FNDL 28401, GNSE 28600, ITAL 28400

CMST 33930. Documentary Production I. 100 Units.

Documentary Video Production focuses on the making of independent documentary video. Examples of various modes of documentary production will be screened and discussed. Issues embedded in the genre, such as the ethics, the politics of representation, and the shifting lines between "the real" and "fiction" will be explored. Story development, pre-production strategies, and production techniques will be our focus, in particular-research, relationships, the camera, interviews and sound recording, shooting in available light, working in crews, and post-production editing. Students will work in crews and be expected to purchase a portable hard drive. A five-minute string-out/rough-cut will be screened at the end of the quarter. Students are strongly encouraged to take Doc Production 2 to complete their work.

Instructor(s): J. Hoffman Terms Offered: Autumn

Note(s): Prior or concurrent enrollment in CMST 10100 recommended for undergraduate students.

Equivalent Course(s): ARTV 33930, HMRT 25106, ARTV 23930, CMST 23930, HMRT 35106, MAAD 23930

CMST 33931. Documentary Production II. 100 Units.

Documentary Video Production II focuses on the shaping and crafting of a non-Fiction video. Enrollment will be limited to those students who have taken Documentary Production I. The class will discuss issues of ethics, power, and representation in this most philosophical and problematic of genres. Students will be expected to write a treatment outline detailing their project and learn about granting agencies and budgeting. Production techniques will concentrate on the language of handheld camera versus tripod, interview methodologies, microphone placement including working with wireless systems and mixers, and lighting for the interview. Post-production will cover editing techniques including color correction and audio sweetening, how to prepare for exhibition, and distribution strategies.

Instructor(s): J. Hoffman Terms Offered: Winter

Prerequisite(s): CMST 23930, HMRT 25106, or ARTV 23930

Equivalent Course(s): CMST 23931, HMRT 35107, ARTV 23931, HMRT 25107, MAAD 23931, ARTV 33931

CMST 34520. Cowboys and Tramps in Film and Literature. 100 Units.

The late 19th and early 20th centuries saw the invention of two distinctly American literary archetypes: the cowboy and the hobo. Based on historical conditions of labor, economics, and westward expansion, the cowboy and the hobo, though both itinerant workers primarily employed seasonally in agriculture and ranching, were depicted very differently in literature and, later, film, during the decades in which they held influence over America's imagination and mythologization of itself. Evoking responses from fear to admiration and pity to envy, the cowboy and the hobo, both as historical figures and as fictional types, reflected the evolving realities of—and the broad range of attitudes toward—labor, masculinity, and place in a modernizing America. This course will examine literary and cinematic representations of hoboes, tramps, cowboys, and gunslingers from the late 1800s to the mid-1900s, tracing their historical and cultural contexts. We will address pulp and dime novels as well as literary masterpieces, stage plays, poems, and feature films from the silent and sound eras, paying special attention to the effects of different media and art forms on the depiction and mythologization of these figures. Other themes include violence and the state, the American West, technology (trains, automation in agriculture, weapons), immigration and migration, race, and material culture. Authors and directors include Jack London, Charlie Chaplin, John Ford, Preston Sturges, Jack Kerouac, Hart Crane, Bret Harte, Terrence Malick, and Martin Scorsese.

Instructor(s): Matt Hauske Terms Offered: Spring 2014

Note(s): Current MAPH students and 3rd and 4th years in the College. All others by instructor consent only.

Screenings Thursday 3:30-6:30.

Equivalent Course(s): ENGL 25801, MAPH 34510, CMST 24530

CMST 34521. Film and Revolution. 100 Units.

On the fiftieth anniversary of 1968 our course couples the study of revolutionary films (and films about revolution) with seminal readings on revolutionary ideology and on the theory of film and video. The goal will be to articulate the mechanics of revolution and its representation in time-based media. Students will produce a video or videos adapting the rich archive of revolutionary film for today's situation. The films screened will be drawn primarily from Soviet and US cinema, from the 1920s to the present day, proceeding more or less chronologically. We begin with newsreels and a "poetic documentary" by Dziga Vertov; they will be paired with classic readings from revolutionary theory, from Karl Marx and Vladimir Lenin to Fidel Castro and Bill Ayres, and from film theory, including Vertov, Andre Bazin and Jean-Luc Godard. Readings will acquaint students with contemporary assessments of the emancipatory potential of film.

Instructor(s): R. Bird; C. Smith Terms Offered: Spring

Equivalent Course(s): REES 36071, ARTV 28000, CMST 24521, REES 26071, ARTV 38000

CMST 34531. Cowboy Modernity. 100 Units.

This course examines the western movie genre through the lens of what is thought of as the cinema's special relationship to and place within twentieth century modernity. From the beginnings of narrative cinema through the 1960s, more westerns were made than any other genre, and the iconography and ideology of the western influenced not only other film genres but also spilled over into other aspects of popular culture and even high art. Why was the cinema, the medium that exemplified modernity for so many people around the world, dominated by westerns, a genre set in the past and in the wilderness? How did the western manifest aspects, anxieties, possibilities, and widespread phenomena of twentieth century modernity? We will examine the western's intersection with modern phenomena, activities, and artforms including tourism, abstract expressionism, feminism, the Baby Boom & television, toys, mining and atomic energy and weapons, and the rise of Las Vegas as a hub for recreational gambling.

Equivalent Course(s): CMST 24531, MAPH 35514

CMST 34550. Central Asian Cinema. 100 Units.

Nowhere has the advent of modernity been more closely entwined with cinema than in Central Asia, a contested entity which for our purposes stretches from Turkey in the West to Kyrgyzstan in the East, though our emphasis will be squarely on Soviet and post-Soviet Central Asia (especially Uzbekistan and Kazakhstan). This course will trace the encounter with cinematic modernity through the analysis of individual films by major directors, including (but not limited to) Shukhrat Abbasov, Melis Ubukeev, Ali Khamraev, Tolomush Okeev, Sergei Paradzhanov, Gulshad Omarova. In addition to situating the films in their cultural and historical situations, close attention will be paid to the sources of Central Asian cinema in cinemas both adjacent and distant; to the ways in which cinema enables a distinct encounter with modernity; and to the cinematic construction of Central Asia as a cultural entity.

Instructor(s): R. Bird Terms Offered: Autumn

Prerequisite(s): PQ: CMST 10100 Introduction to Film or consent of instructor.

Equivalent Course(s): REES 23157, CMST 24550

CMST 34568. The Underground: Alienation, Mobilization, Resistance. 100 Units.

The ancient and multivalent image of the underground has crystallized over the last two centuries to denote sites of disaffection from-and strategies of resistance to-dominant social, political and cultural systems. We will trace the development of this metaphor from the Underground Railroad in the mid-1800s and the French Resistance during World War II to the Weather Underground in the 1960s-1970s, while also considering it as a literary and artistic concept, from Fyodor Dostoevsky's *Notes from the Underground* and Ellison's *Invisible Man* to Chris Marker's film *La Jetée* and Andrei Tarkovsky's *Stalker*. Alongside with such literary and cinematic tales, drawing theoretical guidance from refuseniks from Henry David Thoreau to Guy Debord, this course investigates how countercultural spaces become-or fail to become-sites of political resistance, and also how dissenting ideologies give rise to countercultural spaces. We ask about the relation between social deviance (the failure to meet social norms, whether willingly or unwittingly) and political resistance, especially in the conditions of late capitalism and neo-colonialism, when countercultural literature, film and music (rock, punk, hip-hop, DIY aesthetics etc.) get absorbed into-and coopted by-the hegemonic socio-economic system. In closing we will also consider contemporary forms of dissidence-from Pussy Riot to Black Lives Matter-that rely both on the vulnerability of individual bodies and global communication networks.

Instructor(s): Robert Bird Terms Offered: Spring

Equivalent Course(s): SIGN 26012, CMST 24568, REES 26068, REES 36068

CMST 34607. Chinese Independent Documentary Film. 100 Units.

This course explores the styles and functions of Chinese independent documentary since 1989, with particular attention to the social and political contexts that underpin its flourishing in Mainland China and Taiwan. We will discuss the ways in which recent Chinese documentaries challenge current theories of the genre, how they redefine the relationship between fiction and non-fiction, and the problems of media aesthetics, political intervention, and ethics of representation that they pose. We will look at their channels of circulation in Asia and elsewhere, and will discuss the implications and limits of the notion of independence. Readings will include theorizations of the documentary genre in relation to other visual media and narrative forms, analyses of specific works, and discussions on the impact of digital media.

Instructor(s): P. Iovene Terms Offered: Spring

Equivalent Course(s): EALC 34607, EALC 24607, CMST 24607

CMST 35100. Avant-Garde in East Central Europe. 100 Units.

The avant-gardes of the "other" Europe are the mainstay of this course, which focuses especially, but not exclusively, on the interwar avant-gardes of Austria, Czechoslovakia, Hungary, Poland, Romania, Slovenia, and Yugoslavia. A comparative framework is employed whenever lucrative to comprehend the East/Central European movements in the wider context of the European avant-garde. The course also traces the development and legacy (political and artistic) of these avant-gardes in their contemporary scenes. Plastic, verbal, and performative arts (including film) are studied.

Instructor(s): Malynne Sternstein Terms Offered: Spring

Equivalent Course(s): ARTH 25500, REES 33141, ARTH 35500, REES 23141, CMST 25100

CMST 35102. Narratives Suspense in European/Russian Lit/Film. 100 Units.

This course examines the nature and creation of suspense in literature and film as an introduction to narrative theory. We will question how and why stories are created, as well as what motivates us to continue reading, watching, and listening to stories. We will explore how particular genres (such as detective stories and thrillers) and the mediums of literature and film influence our understanding of suspense and narrative more broadly. Close readings of primary sources will be supplemented with critical and theoretical readings. Literary readings will include work by John Buchan, Arthur Conan Doyle, Feodor Dostoevsky, Graham Greene, Bohumil Hrabal, and J.M. Coetzee. We will also explore Alfred Hitchcock's take on 39 Steps and the Czech New Wave manifesto film, *Pearls of the Deep*. With theoretical readings by: Roland Barthes, Viktor Shklovsky, Erich Auerbach, Paul Ricoeur, and others.

Equivalent Course(s): ENGL 26901, REES 23137, HUMA 26901, ENGL 46901, CMLT 22100, CMST 25102, REES 33137

CMST 35514. Symbolism and Cinema. 100 Units.

In his 1896 essay on cinema, Russian writer Maxim Gorky described the new medium to "madness or symbolism." The connection between cinema and symbolism was not surprising insofar as symbolism was a dominant aesthetic paradigm throughout Europe at the time. However it does suggest (perhaps surprisingly) that from the very beginning cinema was seen as a means of visualizing the non-rational, uncanny and even invisible. This course examines the relationship between symbolism and cinema with particular attention to French and Russian writings and films. Examining how symbolist aesthetics became applied to the cinematic medium, we will pay particular attention to the resources it provided for conceptualizing the uncanny and the mystical. We will question whether there exists a distinct symbolist tradition in film history and how it relates to notions of poetic or experimental cinema. Films will represent a broad cross-section of European (and some American) cinema, from Jean Epstein to Sergei Eisenstein and Alexander Dovzhenko, and from Stan Brakhage to Andrei Tarkovsky.

Instructor(s): R. Bird

Equivalent Course(s): CMST 25514, REES 26019, REES 36019

CMST 35600. Magic and the Cinema. 100 Units.

This course will trace relations between motion pictures and traditions of magic, both as a theatrical entertainment and as a belief system. The invention of cinema's roots in the magic lantern and other "philosophical toys" which trick the senses into seeing visual illusions will be explored in relation to traditions of "Natural Magic" as well as a secularization of magical practices into entertainment from the Renaissance on. The early trick films of Méliès and others will be discussed in relation to the tradition of stage magic in the 19th century, as well as a particular reception of the magical nature of new technologies (electricity, photography, sound recording). The relation between cinema and hypnosis, both as a social concern and as metapsychological description of spectatorship will also be explored. A consideration of the appeal of magic systems of thought (spiritualism, theosophy, ritual magic) for Avant-Garde movement and their relation to experimental films by Epstein, Artaud, Deren, Anger, Smith, Fischinger, and others.

Equivalent Course(s): CMST 25600, ARTH 36200, ARTH 26200

CMST 36402. Orson Welles. 100 Units.

Only in his mid-20s when he made *Citizen Kane*, Orson Welles became one of the great directors and actors of the mid twentieth century. This course will explore the various aspects of his career, including his early work in radio and theater, and focusing on both his career in Hollywood and his work as an independent director. We'll screen and discuss the films Welles made, including major releases and incomplete projects, using them to think about topics such as authorship, genre, film and politics, magic, theater and cinema, adaptation, genius and virtuosity, image and sound, styles of acting, and ideas of cinematic realism and artifice.

Terms Offered: Spring

Prerequisite(s): PQ: CMST 10100 Introduction to Film or consent of instructor.

Equivalent Course(s): CMST 26402

CMST 36403. Post WWII American Mise en Scene Directors. 100 Units.

This course will treat the style of a number of American Hollywood feature film directors during the two decades after World War II, including Nicholas Ray, Anthony Mann, Otto Preminger, and others. These directors were singled out at that time by the critics writing for the French journal *Cahiers du Cinema* as auteurs, directors with a consistent style. Critics in France, England, and the USA used the term *mise en scene* to discuss their use of framing, performance, editing, and camera movement and especially their use of new technologies such as wide screen and color. This course will explore the concept of directors' style as well as the mode of close analysis criticism that grew out of this concept.

Equivalent Course(s): AMER 26403, CMST 26403

CMST 36405. D.W. Griffith. 100 Units.

Controversies fuel American politics and culture. One hundred years ago, *Intolerance* shook the world, if not the most famous, then the most the most expensive and seminal movie ever made. One hundred and one, *The Birth of a Nation* generated the loudest controversy on the issue of race; at the same time, its powerful suspense sequence in the finale made this movie a fundamental of action-movie filmmaking for the century to come.

Griffith came to movie industry in 1908 and dropped out of it in 1931. This course offers a quarter-of-a-century vast panorama of inventions and innovations, shames and triumphs, brilliant successes and spectacular failures connected with D.W. Griffith, the most famous pioneer in the history of film.

Equivalent Course(s): CMST 26405, FNLD 26405, AMER 36405, AMER 26405

CMST 36503. Scandinavian Cinema in the Classic Period (1910-1960) 100 Units.

During the 1910s Scandinavian cinema was among the most popular cinemas in the world. The best directors, actresses, and actors developed a mastery of cinematic expression and screen appearance never seen before in cinema. Erotically charged melodramas and comedies were the most popular genres, but also poetic masterpieces such as *The Passion of Joan of Arc* are key works from this era. The course will explore the breathtaking appearances of such celebrated female stars as Asta Nielsen and Greta Garbo, and analyze silent masterpieces such as Blom's early science fiction films, the dramas of Christensen, Stiller, Sjöström, and Dreyer, and the early films of Tancred Ibsen and Ingmar Bergman. All readings are in English.

Instructor(s): E. Rossaak Terms Offered: Autumn

Prerequisite(s): PQ: CMST 10100 Introduction to Film or consent of instructor.

Equivalent Course(s): CMST 26503

CMST 36705. Kieslowski: The Decalogue. 100 Units.

In this class, we study the monumental series "The Decalogue" by one of the most influential filmmakers from Poland, Krzysztof Kieslowski. Without mechanically relating the films to the Ten Commandments, Kieslowski explores the relevance of the biblical moral rules to the state of modern man forced to make ethical choices.

Each part of the series contests the absolutism of moral axioms through narrative twists and reversals in a wide, universalized sphere. An analysis of the films will be accompanied by readings from Kieslowski's own writings and interviews, including criticism by Zizek, Insdorf, and others.

Equivalent Course(s): REES 27026, REES 37026, CMST 26705, FNLD 24003

CMST 37005. Filming the Police. 100 Units.

Filming the police" as a research topic has been taken up in a range of disciplines and subfields from legal and information studies to surveillance and police studies. In film and media studies, the 1991 George Holliday video of the beating of Rodney King by the LAPD played an important and controversial role in the formation of documentary studies as a subfield and in debates about indexicality, the nature of photographic evidence, and realism-issues at the core of the discipline. While this course will survey the topic of the filming of police from multiple perspectives, it aims to construct a specifically disciplinary framework for research on police violence. Topics to include dashboard and body cameras; surveillance, sousveillance, and the regime of visibility; investigative and citizen journalism; records management and archiving; evidence in court proceedings and in the public sphere; police, media, and ideology; the ethics and politics of looking at black suffering; art about police violence; filming the police in an international frame.

Instructor(s): S.Skvirsky Terms Offered: Winter

Equivalent Course(s): HMRT 37005, MAAD 12005, CMST 27005, HMRT 27005

CMST 37011. Experimental Captures. 100 Units.

This production-based class will explore the possibilities and limits of capturing the world with imaging approaches that go beyond the conventional camera. What new and experimental image-based artworks can be created with technologies such as laser scanning, structured light projection, time of flight cameras, photogrammetry, stereography, motion capture, sensor augmented cameras or light field photography? This hands-on course welcomes students with production experience while being designed to keep established tools and commercial practices off-kilter and constantly in question.

Instructor(s): M. Downie Terms Offered: Winter

Equivalent Course(s): MAAD 21011, ARTV 27923, CMST 27011, ARTV 37923

CMST 37020. Live Cinema. 100 Units.

This production-oriented class will examine contemporary approaches to the performed digital moving image. Through studying the range of tools and conceptual frameworks that have sought to fuse live visuals in performance in contexts spanning theater, dance, music, installation and public art, students will complete a series of critical sketches leading towards a final project using custom software developed in and for the class. Film production, music composition, and computer programming experience are welcome (but none are prerequisites for the course). Students will be expected to ultimately use the techniques they learn in a final performance.

Instructor(s): M.Downie Terms Offered: Spring

Equivalent Course(s): CMST 27020

CMST 37205. Film Aesthetics. 100 Units.

The main questions to be discussed are: the bearing of cinema on philosophy; or in what sense, if any, is cinema a form of philosophical thought? What sort of distinctive aesthetic object is a film, or what is the "ontology" of film? What, in particular, distinguishes a "realist" narrative film? What is a "Hollywood" film? What is a Hollywood genre? Authors to be read include, among others, Bazin, Cavell, Perkins, Wilson, Rothman. Films to be seen and discussed, among others, include films by Bresson, Ford, Ophuls, Cukor, Hitchcock, and the Dardenne brothers.

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Instructor(s): J. Conant, R. Pippin Terms Offered: Spring

Equivalent Course(s): CMST 27205, SETH 38112, PHIL 30208, PHIL 20208

CMST 37207. Film Criticism. 100 Units.

A workshop and seminar for both graduate students and undergraduates devoted to reading, writing, and (in the cases of some audiovisual essays and features) watching and listening to various forms of film criticism, including historical, journalistic, academic, and experimentally and artistically shaped examples of this practice. Weekly screenings and readings will help to focus the discussions, along with writing assignments that will be read aloud and critiqued in class. Part of the overall direction of this course will be determined by the particular interests of the students and their willingness to articulate them. A workshop and seminar for both graduate students and undergraduates devoted to reading, writing, and (in the cases of some audiovisual essays and features) watching and listening to various forms of film criticism, including historical, journalistic, academic, and experimentally and artistically shaped examples of this practice. Weekly screenings and readings will help to focus the discussions, along with writing assignments that will be read aloud and critiqued in class. Part of the overall direction of this course will be determined by the particular interests of the students and their willingness to articulate them.

Instructor(s): J.Rosenbaum Terms Offered: Autumn

Equivalent Course(s): CMST 27207

CMST 37220. Classical Film Theory. 100 Units.

This seminar will present a critical survey of the principal authors, concepts, and films in the classical period of film theory. The main though not exclusive emphasis will be the period of silent film and theorists writing in the context of French and German cinema. We will study the aesthetic debates of the period in their historical context, whose central questions include: Is film an art? If so, what specific and autonomous means of expression define it as an aesthetic medium? What defines the social force and function of cinema as a mass art? Weekly readings and discussion will examine major film movements of the classical period—for example, French impressionism and Surrealism—as well as the work of major figures such as Vachel Lindsay, Hugo Münsterberg, Rudolf Arnheim, Jean Epstein, Germaine Dulac, Béla Balázs, Erwin Panofsky, Hans Richter, Siegfried Kraacauer, Walter Benjamin, André Bazin, and others.

Instructor(s): D.N. Rodowick Terms Offered: Spring

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): CMST 27220

CMST 37230. Modern Film Theory. 100 Units.

This course will examine influential writings on photography, film, and film narrative published in the post-war period in the context of semiology, structuralism, and narratology. We will examine how questions of form, structure, and narrative in film and photography are addressed by critics writing from the end of World War II until the early seventies, especially in France and Italy. In what ways can the image be considered a sign? How do images come to have meaning in a denotative or connotative sense? What are the principal codes organizing images as narrative media and how do spectators recognise those codes? Readings will include work by Roland Barthes, Christian Metz, Jean Mitry, Noël Burch, Raymond Bellour, Umberto Eco, Pier Paolo Pasolini, and David Bordwell, among others.

Instructor(s): D.N. Rodowick Terms Offered: Winter

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): CMST 27230

CMST 37802. Art and Public Life. 100 Units.

The aim of this seminar-colloquium will be to work through some of the most advanced thinking on ideas about publics and their relation to questions of community, politics, society, culture, and the arts. From John Dewey through Hannah Arendt and Jurgen Habermas, the notion of the public has remained central to a wide variety of debates in the humanities and social sciences. What is a public? How are publics constituted? What is the role of real and virtual space, architectural design, urban planning, and technical media, in the formation of publics? And, most centrally for our purposes, what role can and do the arts play in the emergence of various kinds of publics? The colloquium aspect of the course will involve visiting speakers from a variety of disciplines, both from the University of Chicago faculty, and from elsewhere.

Instructor(s): W.J.T. Mitchell, T. Gates Terms Offered: Autumn

Equivalent Course(s): ENGL 32821, ARTV 37911, ARTH 47911, MUSI 35014

CMST 37805. Framing, Re-framing, and Un-framing Cinema. 100 Units.

By cinema, we mean the art of the moving image, which is not limited to the material support of a flexible band called film. This art reaches back to early devices to trick the eye into seeing motion and looks forward to new media and new modes of presentation. With the technological possibility of breaking images into tiny pixels and reassembling them and of viewing them in new way that this computerized image allows, we now face the most radical transformation of the moving image since the very beginnings of cinema. A collaboration between the OpenEndedGroup (Marc Downie and Paul Kaiser), artists who have created new modes of the moving image for more than decade, and film scholar Tom Gunning, this course will use this moment of new technologies to explore and expand the moving image before it becomes too rigidly determined by the powerful industrial forces now propelling it forward. This course will be intensely experimental as we see how we might use new computer algorithms to take apart and re-experience classic films of the past. By using new tools, developed for and during this class, students will make new experiences inside virtual reality environments for watching, analyzing, and recombining films and that are unlike any other. These tools will enable students, regardless of previous programming experience, to participate in this crucial technological and cultural juncture.

Equivalent Course(s): CMST 27805, ARTV 30805, ARTV 20805

CMST 37810. Cinema and New Media. 100 Units.

Over the past two decades, new media such as television, computers and the web, digital image production, and video games have begun to transform, and even supplant, the social and cultural prominence of cinema. This course will look at how these media work: the history of their development, the changes they have brought about in a broader media culture, their political implications, and their social status and significance (e.g., the place they occupy in culture, the kinds of interactions they make possible). The focus will equally be on the ways in which cinema has responded to the changing digital landscape, which will be explored through both blockbuster and experimental films as well as video and web-based art. Readings will be taken from the history of film theory, recent work in media history and archeology, and theoretical studies of digital media and technology.

Instructor(s): D. Morgan Terms Offered: Autumn

CMST 37911. Augmented Reality Production. 100 Units.

Focusing on experimental moving-image approaches at a crucial moment in the emerging medium of augmented reality, this class will explore and interrogate each stage of production of AR works. Students in this production-based class will examine the techniques and opportunities of this new kind of moving image. During this class we'll study the construction of examples across a gamut from locative media, journalism, and gameplay-based works to museum installations. Students will complete a series of critical essays and sketches towards a final augmented reality project using a custom set of software tools developed in and for the class.

Instructor(s): M. Downie Terms Offered: Autumn

Equivalent Course(s): CMST 27911, MAAD 22911, ARTV 27921, ARTV 37921

CMST 37915. Introduction to Videogame Studies: Art, Play, and Society. 100 Units.

This course is intended as an introduction to the study of videogames in the humanities. Topics include videogame form (visual style, spatial design, sound, and genre); videogames as a narrative medium; embodiment and hapticity in videogame play; issues of identity/identification, performance, and access related to gender, sexuality, race and ethnicity, ability, and class; and rhetorical, educational, and political uses of videogames. Just as the videogame medium has drawn from older forms of art and play, so the emerging field of videogame studies has grown out of and in conversation with surrounding disciplines. With this in mind, readings and topics of discussion will be drawn both from videogame studies proper and from other fields in the humanities - including, but not limited to, English, art history, and cinema and media studies. Undergraduates should be prepared for an MA-level reading load but will write final papers of the standard length for upper-level undergraduate courses (8-10 pages versus 12-15 for MA students). MA students interested in pursuing a particular research topic in-depth will be given supplemental readings. This course will also be designed to take advantage of the University of Chicago's videogame collection, and will require game play both individually and as part of group play sessions.

Instructor(s): Christopher Carloy Terms Offered: Spring

Note(s): Email for instructor consent

Equivalent Course(s): DIGS 20010, ENGL 34515, MAAD 27915, MAPH 34515, ENGL 24515, DIGS 30010, CMST 27915

CMST 37920. Virtual Reality Production. 100 Units.

Focusing on experimental moving-image approaches at a crucial moment in the emerging medium of virtual reality, this class will explore and interrogate each stage of production for VR. By hacking their way around the barriers and conventions of current software and hardware to create new optical experiences, students will design, construct and deploy new ways of capturing the world with cameras and develop new strategies and interactive logics for placing images into virtual spaces. Underpinning these explorations will be a careful discussion, dissection and reconstruction of techniques found in the emerging VR "canon" that spans new modes of journalism and documentary, computer games, and narrative "VR cinema." Film production and computer programming experience is welcome but not a prerequisite for the course. Students will be expected to complete short "sketches" of approaches in VR towards a final short VR experience.

Instructor(s): M.Downie Terms Offered: Autumn

Equivalent Course(s): CMST 27920, ARTV 37920, ARTV 27920, MAAD 24920

CMST 38006. Minimalist Experiment in Film and Video. 100 Units.

This multilevel studio will investigate minimalist strategies in artists' film and video from the late 1960s to the present day. Emphasis will be placed on works made with limited means and/or with "amateur" formats such as Super-8 and 16mm film, camcorders, Flip cameras, SLR video, and iPhone or iPad. Our aim is to imagine how to produce complex results from economical means. Important texts will be paired with in class discussion of works by artists such as Andy Warhol, Yoko Ono, Kurt Kren, Jack Goldstein, Larry Gottheim, Bruce Baillie, James Benning, John Baldessari, Morgan Fisher, Stan Douglas, Matthew Buckingham, Sam Taylor-Wood, and others.

Instructor(s): D.N. Rodowick Terms Offered: Autumn

Equivalent Course(s): ARTV 33815, CMST 28006, MAAD 23805, ARTV 23805

CMST 38100. Issues in Film Music. 100 Units.

This course explores the role of film music in the history of cinema. What role does music play as part of the narrative (source music) and as nondiegetic music (underscoring)? How does music of different styles and provenance contribute to the semiotic universe of film? And how did film music assume a central voice in twentieth-century culture? We study music composed for films (original scores) as well as pre-existent music (e.g., popular and classical music). The twenty films covered in the course may include classical Hollywood cinema, documentaries, foreign (e.g., non-Western) films, experimental films, musicals, and cartoons.

Instructor(s): B. Hoeckner

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): MUSI 22901, CMST 28100, MUSI 30901

CMST 38202. Contemporary Documentary. 100 Units.

In our era of post-truth, this course proposes to investigate strategies developed by contemporary documentaries to present and/or reconstruct facts, truth, and objectivity. Among other topics, we will consider questions such as the following: What lines can be drawn between discourse, representation, and fiction? Do these documentaries aim to create truthfulness or skepticism? What kind of awareness--individual, social, or political--to they try to raise and promote?

Instructor(s): D. Blucher Terms Offered: Spring

Equivalent Course(s): CMST 28202

CMST 38265. Biography, History, Art: Documenting Blakelock. 100 Units.

This Gray Center sponsored research practicum is tied to a film project with documentary-maker and Mellon Collaborative Fellow Ric Burns about outsider artist Ralph Blakelock. America's van Gogh, Blakelock created art far ahead of his time, went mad, and spent nearly twenty years in an asylum before emerging into the glare of flashbulbs as the most sought-after painter of the 1910s, only to end his life as victim of a con game. In between, he sojourned with the Sioux, hobnobbed with Gilded Age millionaires, channeled Longfellow and Mendelsohn in his art, struggled in the emergent New York "art world", played vaudeville piano, and became one of the first major figures in modern celebrity-driven mass media. How best to capture this kaleidoscopic life and Blakelock's dizzying art in a documentary is the creative challenge of the seminar. Our focus will be on Blakelock's Ghost Dance/The Vision of Life. Art Institute conservators, assisted by chemistry department Professor Steven Sibener, will use scientific imaging to see inside the painting, whose provenance and context of production and reception need to be researched. Participants will be assigned to specific topics based on area of expertise. The course should be of particular interest to students in DOVA, Art History, History, English, Psychology, Chemistry, Cinema Studies, and Anthropology.

Instructor(s): Lawrence Rothfield; Ric Burns Terms Offered: Spring

Prerequisite(s): Instructor consent required. Open to students at all levels, undergraduate and graduate. Email a letter of interest to Professor Rothfield: lary@uchicago.edu.

Equivalent Course(s): CMST 28265, ENGL 26522, ENGL 36522, ARTV 30203, ARTV 20203

CMST 38310. Kafka and Performance. 100 Units.

This laboratory seminar is devoted to exploring the texts of Franz Kafka through the lens of performance. In addition to weekly scenic experiments and extensive critical readings (on Kafka as well as performance theory) we will explore the rich history of adapting Kafka in film, theater, puppetry, opera, and performance.

Equivalent Course(s): TAPS 32110, TAPS 22110, GRMN 23110, CMST 28310, GRMN 32110, FNLD 22115

CMST 38700. History of International Cinema, Part III: 1960 to Present. 100 Units.

This course will continue the study of cinema around the world from the late 1950s through the 1990s. We will focus on New Cinemas in France, Czechoslovakia, Germany, the United States, the United Kingdom, and other countries. We will pay special attention to experimental stylistic developments, women directors, and well-known auteurs. After the New Cinema era we will examine various developments in world cinema, including the rise of Bollywood, East Asian film cultures, and other movements.

Instructor(s): J. Lastra Terms Offered: Spring

Note(s): This course follows the subject matter taught in CMST 28500/48500 and CMST 28600/48600, but these are not prerequisites.

Equivalent Course(s): CMST 28700, MAAD 18700

CMST 38703. Video Art: The Analog Years. Theory, Technology, Practice. 100 Units.

The course gives a critical introduction to early video and television art - from the proto-televisual impulses in the historical avant-gardes to the increasing proximity between analog and digital technologies in video art in the late 1970's and early 1980's. We will focus on the various technical aspects of analog video, as well as on artistic practice and early writings on the subject. Topics will include the technics and politics of time; video, feedback systems and ecology; the reconfiguration of the artist's studio; guerilla politics and alternative TV; video and autobiography; the relation between video and painting; the musical history of video; the invention of new machines; and video as a "television viewer".

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): MAAD 18703, ARTH 31313, CMST 28703, ARTH 21313

CMST 38921. Introduction to 16mm Filmmaking, 100 Units.

The goal of this intensive laboratory course is to give its students a working knowledge of film production using the 16mm gauge. The course will emphasize how students can use 16mm technology towards successful cinematography and image design (for use in both analog and digital postproduction scenarios) and how to develop their ideas towards constructing meaning through moving pictures. Through a series of group exercises, students will put their hands on equipment and solve technical and aesthetic problems, learning to operate and care for the 16mm Bolex film camera; prime lenses; Sekonic light meter; Sachtler tripod; and Arri light kit and accessories. For a final project, students will plan and produce footage for an individual or small group short film. The first half the class will be highly structured, with demonstrations, in-class shoots and lectures. As the semester continues, class time will open up to more of a workshop format to address the specific concerns and issues that arise in the production of the final projects. This course is made possible by the Charles Roven Fund for Cinema and Media Studies.

Instructor(s): T. Comerford Terms Offered: Winter

Equivalent Course(s): CMST 28921, MAAD 23808, ARTV 33808, ARTV 23808

CMST 38922. Intermediate 16mm Filmmaking, 100 Units.

This course will allow students to continue working on projects begun in the Intro to 16mm Production course (or developing a new small-scale project), in addition to developing skills with the following: sophisticated approaches to cinematography (comparative and reflective light metering, color negative exposure); varying workflows for post-production editing (analog and digital); and sound recording and design. Students will meet as a group for lectures, technical demonstrations and a shooting workshop. Course meeting time will also be set aside for individual conferences with the instructor to address project development and completion. Students should expect to budget between 120.00-500.00 for their filmstock and processing costs, depending on the project. This course is made possible by the Charles Roven Fund for Cinema and Media Studies. Instructor permission required.

Instructor(s): T. Comerford Terms Offered: Spring

Prerequisite(s): Permission from instructor is required for registration. Students will bid for entry to the class by emailing tcomerford@uchicago.edu, listing their year, major and previous production experience. Priority will be given to students who have previously completed the Intro to 16mm course, followed by CMS and DOVA majors, from graduate students to first-years. Students whose bids are accepted will be registered officially by the instructor at the first class meeting.

Equivalent Course(s): ARTV 38001, ARTV 28001, CMST 28922

CMST 39002. Motion Pictures in the Human Sciences, 100 Units.

This course will examine the relationship between moving images, particularly motion-picture films, and the human sciences, broadly construed, from the early days of cinema to the advent of functional magnetic resonance imaging (fMRI). It will use primary source documents alongside screenings to allow students to study what the moving image meant to researchers wishing to develop knowledge of mind and behavior, and what they thought film could do that still photography and unmediated human observation could not. The kinds of motion pictures we will study will vary widely, from infant development studies to psychiatric films, from documentaries to research films, and from films made by scientists or clinicians as part of their laboratory or therapeutic work to experimental films made by seasoned filmmakers. We will explore how people used the recordings they made in their own studies, in communications with other scientists, and for didactic and other purposes. We will also discuss how researchers' claims about mental processes-perception, memory, consciousness, and interpersonal influence-drew on their understandings of particular technologies.

Terms Offered: Spring

Equivalent Course(s): HIST 35208, HIST 25208, HIPS 25208, CHSS 35208, CMST 29002

CMST 39300. Aesthetics: Phil/Photo/Film, 100 Units.

Equivalent Course(s): ARTH 37301, PHIL 21100, CMST 29300, PHIL 31301, ARTH 27301

CMST 40000. Methods and Issues in Cinema Studies, 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard.

Instructor(s): S.Skvirsky Terms Offered: Autumn

Equivalent Course(s): MAPH 33000, ARTH 39900, ENGL 48000

CMST 42719. Music, Emotions and Modernity. 100 Units.

This seminar explores the relationship between music and emotion, focusing on emotions that have a special affinity with the experience of modernity, as expressed in music and film. A major portion of the seminar will be concerned with mixed emotions, including forms of pleasurable sadness, ranging from the Elizabethan cult of melancholia prominent in the music of John Dowland to modern bitterness, as manifest in nineteenth-century melodrama and such films as *Back Street* (1941) and *La La Land* (2016). Readings will include scholarship in musicology and film studies as well as empirical research in psychology and affect theory. Participants will take turns in functioning as "experts" for select seminar sessions by preparing readings and objects for class discussion. Participants taking the class for credit will present a 25-minute research paper at a mini-conference in Week 11.

Instructor(s): Berthold Hoekner Terms Offered: Autumn. Offered Autumn 2018 Thursdays 9:30am-12:20pm in JRL room 264

Equivalent Course(s): MUSI 42719

CMST 43418. Surrealism and Cinema. 100 Units.

This seminar examines the relations between Surrealism and the cinema in interwar France, and the aesthetic, political, and theoretical debates produced by their encounter. To what extent may Surrealism, in its varied iterations, be productively read through the optic of cinema, and even as a cinematic movement? And to what extent is cinema an implicitly Surrealist medium? In addition to tracing a precise history of Surrealism, cinema, and its discontents during this period through works by Louis Aragon, Antonin Artaud, Georges Bataille, Walter Benjamin, André Breton, Luis Buñuel, René Clair, Joseph Cornell, Salvador Dalí, Robert Desnos, Germaine Dulac, Louis Feuillade, Sigmund Freud, Jean Painlevé and Geneviève Hamon, Jean Vigo, and others, this class explores the potential of Surrealism as a methodology for critical and theoretical studies of cinema, literature, culture, and history.

Equivalent Course(s): FREN 36218

CMST 44601. Opera Film: China / Europe: Thinking Media Hybridity across Cases. 100 Units.

This seminar will explore the mutual attraction of cinema and opera across the two vast operatic cultures of Europe and China in order to interrogate the many cross-cultural issues that their media encounters produce and accentuate. Such issues include changing relations to myth, ritual, history, and politics; cross-dressing and gender-bending; closed forms or open; stock characters and plots or narrative fluidity. We will ask why in both China and Europe, opera repeatedly became the conflicted site of nationalist and modernizing aspirations, reiterations of tradition, and attempts at avant-gardism. When the presumed realism of film meets the extravagant hyperperformativity of opera, the encounter produces some extraordinary third kinds-media hybrids. Film repeatedly wrestled with the inherent histrionics of opera through the use of such devices as close-ups, camera angles, shot reverse shot, displacement of sound from sight, acousmatic sound, and trick photography. Such devices were generally meant to suture the supposed improbabilities of the operatic art form, incongruities often based on extravagant and transcendent relationships to realism. Such cinematic renderings of opera are highly revealing of fundamental faultlines in the genres themselves and revealing of the cultures that produced them.

Instructor(s): J. Zeitlin and M. Feldman Terms Offered: Winter

Equivalent Course(s): EALC 41401, MUSI 45019, CDIN 41401, TAPS 41401, ITAL 41419

CMST 44606. China's New Documentary Cinema. 100 Units.

Since the early 1990s, the "new documentary" has emerged as one of the most prominent phenomena in Chinese film and video, widely circulating at international film festivals and eliciting considerable critical debate. This course examines the styles and functions of China's "new documentary" over the last fifteen years, paying particular attention to the institutional, cultural, economic, and political conditions that underpin its flourishing. This overview will lead us to consider questions that concern the recent explosion of the documentary form worldwide, and to explore the tensions and imbalances that characterize the global circulation of the genre. We will address such issues as: what is "new" about China's recent documentary cinema; the "national" and "transnational" dimensions of documentary filmmaking, and the ways in which these dimensions intersect in its production and circulation; the extent to which the international demand for "unofficial" images from China has contributed to its growth; the politics involved in documentary filmmaking, and the forms and meanings of "independent" cinema in the wake of intensified globalization; the links between Chinese documentary and the global rise of documentary filmmaking, and the ways in which they challenge extant concepts and theorizations of the genre.

Instructor(s): P. Iovene

Equivalent Course(s): EALC 24502, CMST 24606, EALC 35402

CMST 47803. The Body of Cinema: Hypnoses, Emotions, Animalities. 100 Units.

Equivalent Course(s): CMST 27803, ENGL 37803

CMST 47815. Media Atmospheres: Art, Technology, and Environment in the 21st Century. 100 Units.

In the late 1990's and early 00's contemporary art seemed to turn towards design and architecture, leading many critics to claim that the boundaries between the practices of art and design were eroding. This course proposes a different line of inquiry, based on the fact that so many of the artworks in question were in fact hidden media machines, improvisations on a life environment increasingly suffused in the dynamics of networked media technologies and their various modes of time production and -control. Elements of design and architecture were in other words enlisted in the construction of what we may call media atmospheres, everyday sensorial surrounds that addressed the intimate integration of bodies and real-time technologies in the information economy, a new modality of the capture of life forces that Michel Foucault called biopolitics. The course will be oriented around a close study of a select number of artistic positions, in addition to reading theoretical and critical texts that are important to the artists in question as well as to the larger field of discussion. Ultimately, the course is about a form of new media art less invested in technical invention than in new aesthetic techniques of social/environmental production.

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): ARTH 41315

CMST 48117. Seminar: Music in Sound Studies. 100 Units.

This graduate research seminar will explore the relationship between film music and film sound. Our focus will be exploratory, based on an eclectic list of films, supplemented by relevant readings in film music studies and film sound studies. Participants will provide sample analyses of films, short reports on weekly readings, and write a research paper to be presented at a mini-conference in Week 11.

Equivalent Course(s): MUSI 44417

CMST 48500-48600. History of International Cinema I-II.

This sequence is required of students majoring in Cinema and Media Studies. Taking these courses in sequence is strongly recommended but not required.

CMST 48500. History of International Cinema I: Silent Era. 100 Units.

This course provides a survey of the history of cinema from its emergence in the mid-1890s to the transition to sound in the late 1920s. We will examine the cinema as a set of aesthetic, social, technological, national, cultural, and industrial practices as they were exercised and developed during this 30-year span. Especially important for our examination will be the exchange of film techniques, practices, and cultures in an international context. We will also pursue questions related to the historiography of the cinema, and examine early attempts to theorize and account for the cinema as an artistic and social phenomenon.

Instructor(s): A.Field Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): CMST 28500, ARTH 38500, CMLT 22400, MAAD 18500, ARTV 20002, ENGL 48700, CMLT 32400, MAPH 33600, ARTH 28500, ENGL 29300

CMST 48600. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, ENGL 48900, MAAD 18600, REES 45005

CMST 48600. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, ENGL 48900, MAAD 18600, REES 45005

CMST 53500. Guillotine / Barricade: Figures of History Across Media. 100 Units.

Taking up the French historical technologies of the guillotine and the barricade, this doctoral seminar explores the history of political spectacle, violence, death, and resistance as also part of a history of figuration-conceptualized by Julia Kristeva as the establishment of a relation between two historical realities-across media. We will examine the actual materials and practices of the guillotine and the barricade alongside literary, artistic, and filmic works that deploy the figural logic of both technologies as part of their formal, representational, and/or political articulation. This seminar thus seeks to examine the methodological stakes of inter-medial and interdisciplinary history and historiography that draws equally from French history, literature, visual art (including sculpture), architecture, and film. This class will be taught in English; French reading and research skills are not necessary, but would be beneficial.

Instructor(s): J. Wild Terms Offered: Spring

Equivalent Course(s): FREN 43501, CDIN 53500

CMST 57200. Film Semiotics: Toward a Linguistic Anthropology of Cinema. 100 Units.

In this seminar we explore a series of topics in the semiotics of film as approached through the semiotic theory developed out of linguistic anthropology: topics will include revisiting questions of structuralist film semiology; iconicity, textuality, and the poetic function; indexicality and ontology; deixis and enunciation; voicing and structures of looking; performativity and image-acts; aesthetic style and enregisterment; rigid designation and stardom. The larger aims of the course are two-fold: one, to articulate a pragmaticist account of the evenemential semiotics of cinema as institutional and textual form-as broached both through ethnographic and close textual methods of analysis-and in doing reconceptualize certain key film theoretic issues; two, to expand and rethink linguistic anthropology's semiotic theory and analysis beyond language/through cinema; in short, to think both film studies and linguistic anthropology with and against each other so as to further a semiotics of moving images.

Instructor(s): Constantine V. Nakassis Terms Offered: Autumn. Autumn 2019

Equivalent Course(s): ANTH 57400

CMST 59900. Reading And Research: Cmst. 100 Units.

This course is intended for graduate students in the Cinema and Media Studies program; the subject matter, course of study, and individual requirements are arranged with the instructor prior to registration.

CMST 61001. Black Film as Art / Black Art as Film. 100 Units.

The aesthetic dimensions of "Black film" tend to be subordinated to historical, social and political lines of inquiry - histories of "art film" tend not to include works by Black artists. This seminar foregrounds questions of form and style in film and video works by a wide range Black artists in order to develop new ways of understanding the complex, mutually constitutive relations between Blackness and the moving image. We will pursue experimental practices by Black film and video makers - beginning in the era of segregated "race film" production of the 1910s-40s, considering moments of stylistic experimentation in the narrative films of Micheaux, Maurice and Williams. We then discuss later film and videomakers who work more consistently and explicitly in experimental modes - the second category includes film and video works by Black visual and performance artists who exhibit in gallery and museum contexts. Along the way, we will discuss intersections with vanguard practices in related art forms, curatorial efforts, and movements between the art world and the film industry.

CMST 61032. Theory, Blackness, and Cinema. 100 Units.

This seminar explores what might be encountered under the categories of "Blackness" and "audio-visibility" with an emphasis on African-American and Black diasporic audio-visual culture. We will consider a range of studies of "Blackness" produced in English in the areas of African American and Black Studies, cinema and media studies, performance studies, art history, and visual studies.

Instructor(s): K. Keeling Terms Offered: Spring

CMST 61102. The L.A. Rebellion and the Politics of Black Cinema. 100 Units.

Equivalent Course(s): CRES 61102

CMST 61820. Minstrelsy-Vaudeville-Cinema: Racialized Performance and American Popular Culture. 100 Units.

What would it mean to say that minstrelsy was a foundational practice in the development of American popular culture, and that the emergence of American cinema must be understood through the lens of its ubiquity? This course therefore investigates the persistence of minstrelsy in American popular culture from the early 19th century to the turn of the 20th century. It traces the development of its tropes, themes, and practices from traveling tent shows to the variety theater of vaudeville and to the emergence of cinema. We will attempt to make legible the functionings of its racist caricatures, account for its popularity and longevity, and explore moments of creative resistance to its dehumanizing portrayals of African Americans. We will look at 19th century performers and composers including T.D. Rice, Billy Kersands, Stephen Foster, Bert Williams and George Walker, Ernest Hogan, May Irwin, Sissieretta Jones. We will also consider later filmmakers working with and against the racialized representations of minstrelsy including D.W. Griffith, Al Jolson, Oscar Micheaux, and Stepin Fetchit, and contemporary reimaginings, confrontations and reckonings, including those of Spike Lee, Dave Chappelle, Christopher Harris, and Edgar Arceneaux. Emphasis will be on methods of primary historical research as well as theories of race, gender and performance.

Instructor(s): A.Field Terms Offered: Winter

Equivalent Course(s): TAPS 51820

CMST 63701. History in the Image. 100 Units.

This seminar undertakes a study of primarily post-World War II French and Belgian film and art movements in order to query the different status and conceptualization of the image and its relationship to history. We will begin our study with a brief look into pre-WWII of avant-garde art and film movements, and classic theories of the avant-garde. Turning our attention to late Surrealist practices, and the rise of neo-avant-garde movements such as Lettrism and the Situationist International, we will grapple with how these groups both understood the stakes of the image and history, as well as developed theoretical models to transform the agency of both within their political aesthetics. We will subsequently ask similar questions of the films and theories that eventually define the French New Wave before moving on to think about social documentary, politically militant image production, and collective film and art practices.

Instructor(s): Jennifer Wild Terms Offered: Spring

Note(s): Reading knowledge of French is not required, but may prove beneficial. Screenings are mandatory. With some possible exceptions, all films will be subtitled. Students enrolled through the FREN section will be required to complete all reading and writing in French.

Equivalent Course(s): ARTH 43701, FREN 43713

CMST 64904. Remapping New Waves: New Cinemas, Film Theory and Criticism in Japan. 100 Units.

We have recently seen a growing number of works that aimed at a broader and renewed understanding of the new cinemas of the 1960s in Japan, with more complex accounts of the historical, geographical, and geopolitical trajectory of the Japanese New Wave. Ongoing investigations have largely ascribed its rise to Oshima Nagisa, the central figure in the publicity-driven phenomenon known as the "Sho#chiku Nouvelle Vague" (Nu#beru Ba#gu). Amidst these new scholarly texts, there are still a series of theoretical and historical/historiographical questions that have remained underexplored: where did the Japanese New Wave come from, and what actually constituted it? How did the emergence of the new cinema intersect with larger media, social, and intellectual history? Did the cinematic medium have to be radicalized in order to become 'new'? How was such 'newness' visualized, accoutinized, and registered by other sensory cues in the cinema? How was the emergence of the new cinema in dialogue with institutions? Placing films in the contexts of the era's media-scape, this course will delve into an analytical reconsideration of this rich period of Japanese cinema specifically from the perspective of the Japanese New Wave. While we will aim to capture the exhilaration of the Japanese New Wave by closely analyzing existing studies on some of its key makers and their works, special attention will be given to what has been left out of the category as it is conventionally understood, such as educational and industrial films. All required readings are in English. Participants with reading ability in Japanese will be asked to take on additional readings in Japanese and present on them in class.

Equivalent Course(s): EALC 44904

CMST 67100. Realism, Social Modernism: Aesthetics and Politics Between the Wars. 100 Units.

The theoretical influence of arguments in the 1920s and 1930s about the relative value of realism and modernism is well known, but the entwinement of theory with cultural production and political debates is less so. This intensive reading course will attempt to historicize theory between the world wars--or more specifically between Bolshevik and German revolutionary responses to the first war and Popular Front against the rise of Fascism leading to the second--by reevaluating the work relatively familiar theorists such as Benjamin, Lenin, and esp. Lukacs in the light of their interlocutors, in fiction, film, and drama Brecht, Gladkov, Gorki, Pudovkin, Eisenstein, Dovzhenko, Seghers, Sholokhov, Christa Wolf, Konrad Wolf, Frank Beyer and their counterparts in America, the Living Newspaper, Film and Photo League, writers for New Masses as well as in theory Bloch, Eisler, Zhdanov, Kenneth Burke, Mike Gold, John Howard Lawson, among others. Essential texts are available in English but working knowledge of German (or Russian) and/or marxist theory very helpful.

Instructor(s): Loren Kruger Terms Offered: Autumn

Equivalent Course(s): GRMN 43700, ENGL 59401, CMLT 59400, SCTH 59400, TAPS 59400

CMST 67103. The Camera and Other Creatures. 100 Units.

Since the advent of photography, artists and commentators have likened the camera to an eye. Immediately, it became apparent that the eye in question was not quite human. The nature of the "creature" incorporating the camera eye has been the subject of speculation and disagreement ever since. In this class we will examine the relationship between human and machine perception, and the possibility of non-human filmic subjectivities. Epstein's "the Bell and Howell is a metal brain," Vertov's "Kino-eye," Benjamin's optical unconscious, theories of the animistic camera, the possessed cameras of Jean Rouch and Maya Deren, Michael Snow's mechanical landscape cinema will all be important points of reference. We will screen films by these filmmakers as well as surveillance, microscopic, and underwater films. This class is dedicated to interrogating and celebrating the manners in which the camera (and the microphone as well) allow us access to an expanded perception.

Instructor(s): J. Lastra Terms Offered: Spring

CMST 67203. Contemporary Film Theory. 100 Units.

This course will read and discuss the body of film theory that emerged after 1960, beginning with the work in film semiology of Christian Metz, through the theorists of the sixties that David Rodowick includes under the term "political modernism;" the theorist associated with Screen (such as Stephen Heath) and their debates with the Post Theorists such as Bordwell and Carroll, the work of Stanley Cavell on film, and ending with a consideration of Giles Deleuze and his Cinema books.

Instructor(s): Tom Gunning Terms Offered: Autumn

CMST 67204. Cinema and Experience. 100 Units.

This seminar will be devoted to close reading of Miriam Hansen's path-breaking book, *Cinema and Experience*. As the most influential exponent of Critical Theory in cinema and media studies, we will discuss Hansen's major contributions to the field, including her important reassessments of concepts of the public sphere and experience, modernity and mass culture, aesthetics and politics, the play-form of second nature, utopia and counter-utopia, and alternative accounts of spectatorship among others. We will also read in parallel and discuss the major texts of Theodor Adorno, Walter Benjamin, and Siegfried Kracauer that are the basis of her unique reconstruction of Critical Theory as a philosophy of cinema, photography, and visual culture.

Instructor(s): D. N. Rodowick Terms Offered: Spring

CMST 67207. Aesthetics. 100 Units.

This seminar explores the intersection of film and philosophical aesthetics. Aesthetics has become a curiously central topic not only within cinema and media studies but also in the disciplines that surround it. From speculative realists to critical theorists to political theorists of various stripes; aesthetics have been taken to have methodological and conceptual primacy. This course takes several paths to explore and evaluate these accounts. First, it looks at the question of why aesthetics has emerged in the present situation: what unresolved questions or problems does it respond to? What is its appeal for the current state of politics and media? Second, it places the recent debates within a longer history of philosophical aesthetics. Which resources from this tradition are being drawn on-and, of equal importance, which are not? Last, the course examines the usefulness of aesthetics within cinema and media studies by testing it against the details of film form. To this end, we will look at several key moments in the history and theory of montage to see whether aesthetics can provide new insights.

Instructor(s): D. Morgan Terms Offered: Autumn

CMST 67211. What Was *Mise-en-scène*? 100 Units.

Mise-en-scène is often understood as a synonym for the act of directing, especially in theater. In film style it is associated with the importance accorded to the placement of props and characters within the film frame, usually in combination with camera movement. This concept was especially important in film criticism of the fifties and sixties and often connected with key post-WWII filmmakers such as Nicholas Ray, Douglas Sirk and Otto Preminger. This seminar will explore the concept both as historical critical concept, and as an ongoing way to discuss the nature of film style.

Equivalent Course(s): ARTH 47211

CMST 67404. Cinema/Labor. 100 Units.

As recent dossiers, books, and essays devoted to labor in film studies and in literary studies suggest, contemporary anxiety over structural transformations in the sphere of work has prompted a renewed interest in the intersection between labor and aesthetic production. This seminar will explore-- through both historical and formal approaches--the encounter between the topic "labor/work" and the varieties of its poeticization in cultural expression across genres, media, and media platform-but particularly in cinema. Topics will include the aestheticization of labor; labor and gesture; automation and machine aesthetics; anti-work politics; commodity fetishism and industrial film; cultural evolutionism and ethnographic cinema; pictorial instructions and educational cinema; absorption and the process genre; craftsmanship and skill; affective and other forms of immaterial labor; the operational aesthetic; and leisure.

Instructor(s): S. Skvirsky Terms Offered: Winter

CMST 67411. Film Theory and the Competition of Modernisms. 100 Units.

This seminar explores the emergence of film theory during the period between the mid-1960s and mid-1970s. Part of the aim is historiographic: to look at accounts of how and why something called Film Theory emerged in the wake of a set of intellectual, political, and institutional forces. The main focus of the seminar, however, will be to create an alternate approach to a set of questions that-as the recent resurgence of work on Film Theory show-have not gone away, and also to pick up a set of questions and topics that got left by the wayside. We'll examine the idea that film theory arose in these years as a struggle over the legacy and meaning of modernism, especially an inheritance of modernist movements in the 1920s and 1930s. Among the central ideas to be explored is that the line between theory and criticism was extremely porous in this period, and that film theory emerged out of a sustained dialogue with debates in art history. The seminar will trace three strands of film theory that laid claim to different modernist traditions: one exemplified by Stanley Cavell and Michael Fried; a second by Annette Michelson and Rosalind Krauss; and a third by Peter Wollen and what has been called "Screen Theory."

Instructor(s): D.Morgan Terms Offered: Spring

Note(s): Readings will position central texts from these strands of theory alongside their modernist influences, from Cubism to Duchamp to Dada to Benjamin to Brecht. The debates between major journals of the time, including *Art Forum*, *October*, and *Screen*, will be central to this history. Screenings will focus on work from Classical Hollywood, the rise of global new waves, and the American avant-garde.

Equivalent Course(s): ARTH 47411

CMST 67812. The Archive of Absence: Theories and Methodologies of Evidence. 100 Units.

In this graduate seminar we will investigate theories and historiographic methodologies of approaching problems of evidence in film history, with a particular focus on approaches to nonextant film, film fragments, unidentified film, and other "mysteries" of film history. Some of these problems are about gaps: how has film history grappled with the absence and instability of the film artifact? Others, especially in a newly digital world, involve abundance: how can film history and historiography navigate the polyvalences of meaning brought about by an ever-expanding archive? This course will combine theoretical readings, analyses of case studies, and students' own research. Topics to be covered include the use of extrafilmic evidence and primary paracinematic evidence, fiction and speculative approaches to history, theories of evidence, and archival theories and practices. We'll also focus on the possibilities and limits of various historiographic methodologies, touching on the use of oral history, biographic research, and official and unofficial discourses. Cases will be drawn from the silent era to contemporary cinema, and from a range of film practices including avant-garde, Classical Hollywood, African American, European art cinema, and others.

Instructor(s): A. Field Terms Offered: Spring

CMST 67814. Cinema Without an Archive. 100 Units.

This seminar takes a comparative approach to issues of archival precarity with particular attention to cinema, memory, and materiality. We will investigate the fraught and contested histories and problems of the archive and the limitations of archival thinking and practice in a comparative context, focusing on post-colonial and post-conflict sites in the Middle East, Asia, Africa, as well as the low rates of survival for minoritarian film practices in the United States. Some of these problems are about gaps: how do we attend to the absence and instability of the film artifact? How do these problems surface-and how are they mediated-in postcolonial sites that grapple with conflict, weak state structures, and contested commemorative practices and issues? Other questions concern definitive versions, remediation, degraded extant material, and barriers to archival access. Topics include the use of extrafilmic evidence and primary paracinematic evidence, fiction and speculative approaches to history, theories of evidence, archival theories and practices, commemorative practices, and the role of state and nongovernmental institutions in the formation of cultural memory.

Instructor(s): Allyson Nadia Field & Ghenwa Hayek Terms Offered: Winter

Prerequisite(s): none

Note(s): There will be a weekly screening with this seminar.

Equivalent Course(s): CMLT 67814, NEHC 40711, CDIN 67814

CMST 67820. The Image in the Age of Artificial Intelligence. 100 Units.

This course will examine closely the recent dramatic advantages in the fields of image analysis and generation in a broad range of contexts: from the lab to their everyday use in social media and government surveillance. Students will be given the opportunity to sharpen their understanding of the possibilities and limits of machine learning by testing contemporary algorithms against datasets of their own design. This course seeks to close the critical and cultural distance between industrial advances in image understanding, the scientific discourses behind this field, and conceptions and uses of the image traditionally available to the humanities.

Instructor(s): M. Downie Terms Offered: Winter

CMST 67827. Politics of Media: From the Culture Industry to Google Brain. 100 Units.

Media theory frequently focuses on issues of technology as opposed to, or at the cost of, politics and culture. This course reorients attention to the intersection of media and cultural theory. We begin by reviewing key media theories from the Frankfurt School and the Birmingham School. Following a historical introduction, we explore the contemporary field of cultural media theory as it has unfolded in both the humanities and the social sciences. Students will think through how the sites of race, class, gender, and sexuality might frame and always already influence the ways that we think of media - from the broadcast media of Adorno and Horkheimer's culture industry that included radio, film, and television to contemporary pointcasting that is made up of digital and networked technologies. Alongside readings in an expanded media theory, we will engage artistic and cultural works, including literature, films, television serials, smart phone apps, video games, social media, and algorithms. We also explore methodological differences in media studies between the humanities and the social sciences.

Instructor(s): Patrick Jagoda & Kristen Schilt Terms Offered: Winter

Prerequisite(s): Before enrolling, MA students should email Professors Jagoda or Schilt on what you bring and hope to get out of the seminar

Equivalent Course(s): SOCI 50119, CDIN 45327, GNSE 45327, ENGL 45327

CMST 67922. Data Driven Dystopias. 100 Units.

This course will look at our current relationship with technologies of mass data collection from both the inside and the outside. From the inside: students will be given the opportunity to sharpen their understanding of the possibilities and limits of surveillance by testing contemporary algorithms against datasets of their own design and curation. From the outside: we'll ask how cultural frameworks have driven these technological and social shifts, conditioned our responses to them, or directed us away from their inner mechanisms. In doing so, this experimental course seeks to close the critical and cultural distance between technical, industrial and commercial advances in artificial intelligence, the scientific writings behind this field, and conceptions and uses of data traditionally available to the arts and humanities.

Instructor(s): M.Downie Terms Offered: Autumn

Note(s): Undergraduate students may enroll with permission of instructor.

CMST 68008. Senses and Technology. 100 Units.

This seminar examines the fraught relationship between the human sensorium, and its mediations through what we might call "sense technologies," such as photography, phonography, moving images, radio, computers, telephones and virtual reality. Understanding aesthetic practices as concretizations of sense experience or as formal realizations of experience has a long and storied history as does modeling devices on suppositions about how we see, hear, touch, etc. The contradictions that inevitably arise between practice and theory are one of the motors or both formal and technological change, and the dialectic between how we understand sensory experience in general and how it manifests itself in various institutional settings (the laboratory, the courts, the film industry, video gaming, etc.) will be a touchstone for the class. We will examine both theoretical and historical approaches to understanding various sense/technology relationships since the eighteenth century.

Instructor(s): J. Lastra Terms Offered: Winter

CMST 68400. Style and Performance from Stage to Screen. 100 Units.

Actor is the oldest profession among arts. Cinema is the youngest art there is. What happens with faces, gestures, monologues, and voices; ancient skills like dance or mime; grand histrionics etc. when arts of performance hit the medium of screen? This course will focus on the history of acting styles in silent films, mapping "national" styles of acting that emerged during the 1910s (American, Danish, Italian, Russian) and various "acting schools" that proliferated during the 1920s ("Expressionist acting," "Kuleshov's Workshop," et al.). We will discuss film acting in the context of various systems of stage acting (Delsarte, Stanislavsky, Meyerhold) and the visual arts.

Equivalent Course(s): ARTH 48905

CMST 69002. Cinema and Labor. 100 Units.**CMST 69900. Pedagogy: The Way We Teach Film. 100 Units.**

This course, spread across the year, is an introduction to pedagogical methods in the field of Cinema and Media Studies. It is intended for - and open only to - CMS PhD Students in second and third year.

Instructor(s): A. Field Terms Offered: Autumn Spring Winter. A full year course, with enrollment only occurring in Autumn.

Prerequisite(s): CMST 69900 is open only to CMS PhD students; requires department consent.

Note(s): This course meets through the full academic year.

CMST 69901. The Films of Ozu Yasujiro. 100 Units.

This course explores Ozu Yasujiro's works from both national and transnational perspectives. Through an intense examination of Ozu's robust film making career, from the student comedies of the late 1920s to the family drama (in Agfacolor) of the early 1960s, we will locate Ozu's works at a dialogic focal point of Japanese, East Asian, American, and European cinema.

CMST 70000. Advanced Study: Cinema & Media Studies. 300.00 Units.

Advanced Study: Cinema & Media Studies

For further information concerning the PhD Program in Cinema and Media Studies, please see the Graduate Program pages (<https://cms.uchicago.edu/content/graduate-program>) on the department's website. Prospective

students should also reach out to the Department Administrator (cinema@uchicago.edu) with questions or to request more information.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions>.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu>, or call them at (773) 702-7752.

Director of Graduate Studies: Allyson Nadia Field, Associate Professor

Director of Undergraduate Studies: James Lastra, Associate Professor

Staff

- Traci Verleyen, Department Administrator
- Rebeca Valencia, Department Assistant

CINEMA AND MEDIA STUDIES COURSES

CMST 30430. Gender, Sexuality, Imagination. 100 Units.

This course explores the relationships between theories of the imagination and those of gender and sexuality, with a particular emphasis on the relevance of this exploration to cinema and media studies.

Instructor(s): K. Keeling Terms Offered: Winter

Equivalent Course(s): CMST 20430, GNSE 30430, MAAD 10430, GNSE 20430

CMST 31082. African-American Documentary. 100 Units.

Though a "documentary impulse" can be traced in Black cinema from actualities of Black soldiers in the 1910s to the social realism of contemporary fiction films, documentary is a distinct form of persuasive media making that relies on evidence and invites performances of expertise and authenticity. Documentary conventions and production contexts have emphasized giving voice to marginalized subjects, allowing little space for Black people to craft their own systems representation, distribution and exhibition. Watching films as varied as *The Negro Soldier* (1944), *Still a Brother: Inside the Negro Middle Class* (1968), *Eyes on the Prize* (1987-1990), *Four Little Girls* (1997) and *13th* (2016), we will consider how documentary film form and culture have been used, critiqued and transformed by Black artists, activists and intellectuals seeking to document Black lives, investigate Black subjectivities, and affect social change. We will look at works and careers of prolific documentarians (William Greaves, Madeline Anderson, St. Clair Bourne, Henry Hampton, Marlon Riggs, Shola Lynch), filmmakers who move between fiction and documentary (Spike Lee, Charles Burnett, Yvonne Welbon, Ava DuVernay) and artists who work at provocative intersections of experimental and documentary film and video (Camille Billops and James V. Hatch, Barbara McCullough, Kevin Jerome Everson, Martine Syms). Class work includes developing a pitch for a documentary about Black documentary.

Instructor(s): J. Stewart Terms Offered: Winter

Equivalent Course(s): CRES 31082, CMST 21082, CRES 21082

CMST 31703. Weimar Cinema. 100 Units.

German films between the end of World War I and the establishment of the Third Reich in 1933 are extraordinarily eclectic and intensely inventive, encompassing horror film, socially conscious dramas, expressionist fantasies, experimental documentary, early proto-fascist and anti-fascist films, and that ur-German invention, the mountain film. We will consider some of the most important works of the period, including films by Fritz Lang, Ernst Lubitsch, G.W. Pabst, F.W. Murnau, Arnold Fanck, Walter Ruttmann, and Josef von Sternberg, examining their context, style, reception, formal achievements and historical significance.

Instructor(s): David Levin Terms Offered: Spring

Equivalent Course(s): CMST 21703, GRMN 37710, GRMN 27710

CMST 31801. Chicago Film History. 100 Units.

This course will screen and discuss films made mostly by Chicagoans, concentrating on the period after WWII, until 1980 when Hollywood began using Chicago as a location. By examining various genres, including those not normally interrogated by academics, such as educational and industrial films, we will consider whether there is a Chicago style of filmmaking. Technological advances that enabled both film and video to escape the restrictions of the studio and go hand-held, into city streets and homes, will be discussed. If there is a Chicago style of filmmaking, one must look at the landscape of the city—the design, the politics, the cultures and labor of its people and how they live their lives. The protagonists and villains of Chicago stories are the politicians and community organizers, our locations are the neighborhoods, and the set designers are Mies Van Der Rohe and the Chicago Housing Authority.

Instructor(s): J. Hoffman Terms Offered: Spring

Equivalent Course(s): ARTV 26750, HMRT 35104, CMST 21801, ARTV 36750, HMRT 25104

CMST 32119. Richard Wagner's Ring of the Nibelung in Performance. 100 Units.

This seminar, open to undergraduates and beginning graduate students, serves as a critical introduction to and intensive exploration of Richard Wagner's 19th century tetralogy. In addition to critical readings (e.g., by Wagner, Adorno, Nietzsche, Badiou, Dahlhaus, et al.) and screenings of a host of productions, we will travel downtown to Lyric Opera to attend performances of the Ring cycle in David Pountney's new production. Our discussions of the Chicago production will be supplemented by conversations with members of the Lyric Opera production team, including Anthony Freud, Lyric Opera's General Director. No previous knowledge is required although a curiosity about opera, German culture, media history, and/or theater & performance studies will be essential.

Instructor(s): David Levin Terms Offered: Spring

Equivalent Course(s): MUSI 24520, FNLD 23419, GRMN 23419, TAPS 26519, MUSI 32520, CMST 22119, TAPS 36519, GRMN 33419

CMST 32235. Revolutionary Romance in Socialist China. 100 Units.

One of the goals of the socialist revolution was to transform social relations, not only those between classes but also family and romantic relations. One of the first laws that the Chinese Communist Party issued after the founding of the People's Republic was the New Marriage Law, which banned arranged marriages, concubinage, and arrangements involving minors. 1950s cinema and literature advertised romantic love as an important achievement of the new society. At the same time, loyalty to the Party and to the collectivity were also core values that the media emphasized. In this class, we will look at how literature and cinema instructed viewers on how to select one's object of love in Revolutionary China, and how love for a romantic partner, for the party, and for the people were differently foregrounded at specific historical moments. How did ideas of romantic love change from the 1940s to the 1980s, and how did cinema contribute to promoting them? What forms of intimacy and models of attachment characterized revolutionary romance? Which kind of person constituted an ideal romantic partner? Who was to be loved, how, and why? Should one orient one's passion toward one person, many, or none?

Instructor(s): P. Iovene Terms Offered: Winter

Equivalent Course(s): GNSE 22235, GNSE 32235, EALC 32235, EALC 22235, CMST 22235

CMST 32507. Cinema and the Holocaust. 100 Units.

Focuses on cinematic responses by several leading film directors from East & Central Europe to a central event of 20th century history – the Holocaust. Nazis began a cinematic documentation of WWII at its onset, positioning cameras in places of actual atrocities. Documentary footage produced was framed by hostile propagandistic schemes; contrary to this 'method', Holocaust feature films are all but a representation of Jewish genocide produced after the actual traumatic events. This class aims at discussing the challenge of representing the Jewish genocide which has often been defined as un-representable. Because of this challenge, Holocaust films raise questions of ethical responsibility for cinematic production & a search for relevant artistic means with which to engage post-traumatic representation. Therefore, among major tropes we will analyze voyeuristic evocation of death & suffering; a truthful representation of violence versus purported necessity of its cinematic aestheticization; intertwined notions of chance & hope as conditions of survival versus hagiographic representation of victims. The main goal is to grasp the potential of cinema for deepening our understanding of the Holocaust, the course simultaneously explores extensive & continuous cinematic production of the genre & its historical development in various European countries, to mention the impact of censorship by official ideologies in the Soviet Union, Poland, Hungary, & Czechoslovakia during the Cold War.

Instructor(s): Bozena Shallcross Terms Offered: Winter

Note(s): Course requirements: film screenings, class participation, reading assignments, one class presentation, and a final project. All readings for the core texts are in English; they can be downloaded from Canvas.

Equivalent Course(s): JWSC 29550, REES 27027, REES 37027, CMST 22507

CMST 33500. Pasolini. 100 Units.

This course examines each aspect of Pasolini's artistic production according to the most recent literary and cultural theories, including Gender Studies. We shall analyze his poetry (in particular "Le Ceneri di Gramsci" and "Poesie informa di rosa"), some of his novels ("Ragazzi di vita," "Una vita violenta," "Teorema," "Petrolino"), and his numerous essays on the relationship between standard Italian and dialects, semiotics and cinema, and the role of intellectuals in contemporary Western culture. We shall also discuss the following films: "Accattone," "La ricotta," "Edipo Re," "Teorema," and "Salò".

Instructor(s): A. Maggi Terms Offered: Winter

Equivalent Course(s): ITAL 38400, CMST 23500, FNDL 28401, GNSE 28600, ITAL 28400

CMST 33930. Documentary Production I. 100 Units.

Documentary Video Production focuses on the making of independent documentary video. Examples of various modes of documentary production will be screened and discussed. Issues embedded in the genre, such as the ethics, the politics of representation, and the shifting lines between "the real" and "fiction" will be explored. Story development, pre-production strategies, and production techniques will be our focus, in particular-research, relationships, the camera, interviews and sound recording, shooting in available light, working in crews, and post-production editing. Students will work in crews and be expected to purchase a portable hard drive. A five-minute string-out/rough-cut will be screened at the end of the quarter. Students are strongly encouraged to take Doc Production 2 to complete their work.

Instructor(s): J. Hoffman Terms Offered: Autumn

Note(s): Prior or concurrent enrollment in CMST 10100 recommended for undergraduate students.

Equivalent Course(s): ARTV 33930, HMRT 25106, ARTV 23930, CMST 23930, HMRT 35106, MAAD 23930

CMST 33931. Documentary Production II. 100 Units.

Documentary Video Production II focuses on the shaping and crafting of a non-Fiction video. Enrollment will be limited to those students who have taken Documentary Production I. The class will discuss issues of ethics, power, and representation in this most philosophical and problematic of genres. Students will be expected to write a treatment outline detailing their project and learn about granting agencies and budgeting. Production techniques will concentrate on the language of handheld camera versus tripod, interview methodologies, microphone placement including working with wireless systems and mixers, and lighting for the interview. Post-production will cover editing techniques including color correction and audio sweetening, how to prepare for exhibition, and distribution strategies.

Instructor(s): J. Hoffman Terms Offered: Winter

Prerequisite(s): CMST 23930, HMRT 25106, or ARTV 23930

Equivalent Course(s): CMST 23931, HMRT 35107, ARTV 23931, HMRT 25107, MAAD 23931, ARTV 33931

CMST 34520. Cowboys and Tramps in Film and Literature. 100 Units.

The late 19th and early 20th centuries saw the invention of two distinctly American literary archetypes: the cowboy and the hobo. Based on historical conditions of labor, economics, and westward expansion, the cowboy and the hobo, though both itinerant workers primarily employed seasonally in agriculture and ranching, were depicted very differently in literature and, later, film, during the decades in which they held influence over America's imagination and mythologization of itself. Evoking responses from fear to admiration and pity to envy, the cowboy and the hobo, both as historical figures and as fictional types, reflected the evolving realities of-and the broad range of attitudes toward-labor, masculinity, and place in a modernizing America. This course will examine literary and cinematic representations of hoboes, tramps, cowboys, and gunslingers from the late 1800s to the mid-1900s, tracing their historical and cultural contexts. We will address pulp and dime novels as well as literary masterpieces, stage plays, poems, and feature films from the silent and sound eras, paying special attention to the effects of different media and art forms on the depiction and mythologization of these figures. Other themes include violence and the state, the American West, technology (trains, automation in agriculture, weapons), immigration and migration, race, and material culture. Authors and directors include Jack London, Charlie Chaplin, John Ford, Preston Sturges, Jack Kerouac, Hart Crane, Bret Harte, Terrence Malick, and Martin Scorsese.

Instructor(s): Matt Hauske Terms Offered: Spring 2014

Note(s): Current MAPH students and 3rd and 4th years in the College. All others by instructor consent only.

Screenings Thursday 3:30-6:30.

Equivalent Course(s): ENGL 25801, MAPH 34510, CMST 24530

CMST 34521. Film and Revolution. 100 Units.

On the fiftieth anniversary of 1968 our course couples the study of revolutionary films (and films about revolution) with seminal readings on revolutionary ideology and on the theory of film and video. The goal will be to articulate the mechanics of revolution and its representation in time-based media. Students will produce a video or videos adapting the rich archive of revolutionary film for today's situation. The films screened will be drawn primarily from Soviet and US cinema, from the 1920s to the present day, proceeding more or less chronologically. We begin with newsreels and a "poetic documentary" by Dziga Vertov; they will be paired with classic readings from revolutionary theory, from Karl Marx and Vladimir Lenin to Fidel Castro and Bill Ayres, and from film theory, including Vertov, Andre Bazin and Jean-Luc Godard. Readings will acquaint students with contemporary assessments of the emancipatory potential of film.

Instructor(s): R.Bird; C.Smith Terms Offered: Spring

Equivalent Course(s): REES 36071, ARTV 28000, CMST 24521, REES 26071, ARTV 38000

CMST 34531. Cowboy Modernity. 100 Units.

This course examines the western movie genre through the lens of what is thought of as the cinema's special relationship to and place within twentieth century modernity. From the beginnings of narrative cinema through the 1960s, more westerns were made than any other genre, and the iconography and ideology of the western influenced not only other film genres but also spilled over into other aspects of popular culture and even high art. Why was the cinema, the medium that exemplified modernity for so many people around the world, dominated by westerns, a genre set in the past and in the wilderness? How did the western manifest aspects, anxieties, possibilities, and widespread phenomena of twentieth century modernity? We will examine the western's intersection with modern phenomena, activities, and artforms including tourism, abstract expressionism, feminism, the Baby Boom & television, toys, mining and atomic energy and weapons, and the rise of Las Vegas as a hub for recreational gambling.

Equivalent Course(s): CMST 24531, MAPH 35514

CMST 34550. Central Asian Cinema. 100 Units.

Nowhere has the advent of modernity been more closely entwined with cinema than in Central Asia, a contested entity which for our purposes stretches from Turkey in the West to Kyrgyzstan in the East, though our emphasis will be squarely on Soviet and post-Soviet Central Asia (especially Uzbekistan and Kazakhstan). This course will trace the encounter with cinematic modernity through the analysis of individual films by major directors, including (but not limited to) Shukhrat Abbasov, Melis Ubukeev, Ali Khamraev, Tolomush Okeev, Sergei Paradzhanov, Gulshad Omarova. In addition to situating the films in their cultural and historical situations, close attention will be paid to the sources of Central Asian cinema in cinemas both adjacent and distant; to the ways in which cinema enables a distinct encounter with modernity; and to the cinematic construction of Central Asia as a cultural entity.

Instructor(s): R. Bird Terms Offered: Autumn

Prerequisite(s): PQ: CMST 10100 Introduction to Film or consent of instructor.

Equivalent Course(s): REES 23157, CMST 24550

CMST 34568. The Underground: Alienation, Mobilization, Resistance. 100 Units.

The ancient and multivalent image of the underground has crystallized over the last two centuries to denote sites of disaffection from-and strategies of resistance to-dominant social, political and cultural systems. We will trace the development of this metaphor from the Underground Railroad in the mid-1800s and the French Resistance during World War II to the Weather Underground in the 1960s-1970s, while also considering it as a literary and artistic concept, from Fyodor Dostoevsky's *Notes from the Underground* and Ellison's *Invisible Man* to Chris Marker's film *La Jetée* and Andrei Tarkovsky's *Stalker*. Alongside with such literary and cinematic tales, drawing theoretical guidance from refuseniks from Henry David Thoreau to Guy Debord, this course investigates how countercultural spaces become-or fail to become-sites of political resistance, and also how dissenting ideologies give rise to countercultural spaces. We ask about the relation between social deviance (the failure to meet social norms, whether willingly or unwittingly) and political resistance, especially in the conditions of late capitalism and neo-colonialism, when countercultural literature, film and music (rock, punk, hip-hop, DIY aesthetics etc.) get absorbed into-and coopted-by-the hegemonic socio-economic system. In closing we will also consider contemporary forms of dissidence-from Pussy Riot to Black Lives Matter-that rely both on the vulnerability of individual bodies and global communication networks.

Instructor(s): Robert Bird Terms Offered: Spring

Equivalent Course(s): SIGN 26012, CMST 24568, REES 26068, REES 36068

CMST 34607. Chinese Independent Documentary Film. 100 Units.

This course explores the styles and functions of Chinese independent documentary since 1989, with particular attention to the social and political contexts that underpin its flourishing in Mainland China and Taiwan. We will discuss the ways in which recent Chinese documentaries challenge current theories of the genre, how they redefine the relationship between fiction and non-fiction, and the problems of media aesthetics, political intervention, and ethics of representation that they pose. We will look at their channels of circulation in Asia and elsewhere, and will discuss the implications and limits of the notion of independence. Readings will include theorizations of the documentary genre in relation to other visual media and narrative forms, analyses of specific works, and discussions on the impact of digital media.

Instructor(s): P. Iovene Terms Offered: Spring

Equivalent Course(s): EALC 34607, EALC 24607, CMST 24607

CMST 35100. Avant-Garde in East Central Europe. 100 Units.

The avant-gardes of the "other" Europe are the mainstay of this course, which focuses especially, but not exclusively, on the interwar avant-gardes of Austria, Czechoslovakia, Hungary, Poland, Romania, Slovenia, and Yugoslavia. A comparative framework is employed whenever lucrative to comprehend the East/Central European movements in the wider context of the European avant-garde. The course also traces the development and legacy (political and artistic) of these avant-gardes in their contemporary scenes. Plastic, verbal, and performing arts (including film) are studied.

Instructor(s): Malynne Sternstein Terms Offered: Spring

Equivalent Course(s): ARTH 25500, REES 33141, ARTH 35500, REES 23141, CMST 25100

CMST 35102. Narratives Suspense in European/Russian Lit/Film. 100 Units.

This course examines the nature and creation of suspense in literature and film as an introduction to narrative theory. We will question how and why stories are created, as well as what motivates us to continue reading, watching, and listening to stories. We will explore how particular genres (such as detective stories and thrillers) and the mediums of literature and film influence our understanding of suspense and narrative more broadly. Close readings of primary sources will be supplemented with critical and theoretical readings. Literary readings will include work by John Buchan, Arthur Conan Doyle, Feodor Dostoevsky, Graham Greene, Bohumil Hrabal, and J.M. Coetzee. We will also explore Alfred Hitchcock's take on 39 Steps and the Czech New Wave manifesto film, *Pearls of the Deep*. With theoretical readings by: Roland Barthes, Viktor Shklovsky, Erich Auerbach, Paul Ricoeur, and others.

Equivalent Course(s): ENGL 26901, REES 23137, HUMA 26901, ENGL 46901, CMLT 22100, CMST 25102, REES 33137

CMST 35514. Symbolism and Cinema. 100 Units.

In his 1896 essay on cinema, Russian writer Maxim Gorky described the new medium to "madness or symbolism." The connection between cinema and symbolism was not surprising insofar as symbolism was a dominant aesthetic paradigm throughout Europe at the time. However it does suggest (perhaps surprisingly) that from the very beginning cinema was seen as a means of visualizing the non-rational, uncanny and even invisible. This course examines the relationship between symbolism and cinema with particular attention to French and Russian writings and films. Examining how symbolist aesthetics became applied to the cinematic medium, we will pay particular attention to the resources it provided for conceptualizing the uncanny and the mystical. We will question whether there exists a distinct symbolist tradition in film history and how it relates to notions of poetic or experimental cinema. Films will represent a broad cross-section of European (and some American) cinema, from Jean Epstein to Sergei Eisenstein and Alexander Dovzhenko, and from Stan Brakhage to Andrei Tarkovsky.

Instructor(s): R. Bird

Equivalent Course(s): CMST 25514, REES 26019, REES 36019

CMST 35600. Magic and the Cinema. 100 Units.

This course will trace relations between motion pictures and traditions of magic, both as a theatrical entertainment and as a belief system. The invention of cinema's roots in the magic lantern and other "philosophical toys" which trick the senses into seeing visual illusions will be explored in relation to traditions of "Natural Magic" as well as a secularization of magical practices into entertainment from the Renaissance on. The early trick films of Méliès and others will be discussed in relation to the tradition of stage magic in the 19th century, as well as a particular reception of the magical nature of new technologies (electricity, photography, sound recording). The relation between cinema and hypnosis, both as a social concern and as a metapsychological description of spectatorship will also be explored. A consideration of the appeal of magic systems of thought (spiritualism, theosophy, ritual magic) for Avant-Garde movement and their relation to experimental films by Epstein, Artaud, Deren, Anger, Smith, Fischinger, and others.

Equivalent Course(s): CMST 25600, ARTH 36200, ARTH 26200

CMST 36402. Orson Welles. 100 Units.

Only in his mid-20s when he made *Citizen Kane*, Orson Welles became one of the great directors and actors of the mid twentieth century. This course will explore the various aspects of his career, including his early work in radio and theater, and focusing on both his career in Hollywood and his work as an independent director. We'll screen and discuss the films Welles made, including major releases and incomplete projects, using them to think about topics such as authorship, genre, film and politics, magic, theater and cinema, adaptation, genius and virtuosity, image and sound, styles of acting, and ideas of cinematic realism and artifice.

Terms Offered: Spring

Prerequisite(s): PQ: CMST 10100 Introduction to Film or consent of instructor.

Equivalent Course(s): CMST 26402

CMST 36403. Post WWII American Mise en Scene Directors. 100 Units.

This course will treat the style of a number of American Hollywood feature film directors during the two decades after World War II, including Nicholas Ray, Anthony Mann, Otto Preminger, and others. These directors were singled out at that time by the critics writing for the French journal *Cahiers du Cinema* as auteurs, directors with a consistent style. Critics in France, England, and the USA used the term *mise en scene* to discuss their use of framing, performance, editing, and camera movement and especially their use of new technologies such as wide screen and color. This course will explore the concept of directors' style as well as the mode of close analysis criticism that grew out of this concept.

Equivalent Course(s): AMER 26403, CMST 26403

CMST 36405. D.W. Griffith. 100 Units.

Controversies fuel American politics and culture. One hundred years ago, *Intolerance* shook the world, if not the most famous, then the most the most expensive and seminal movie ever made. One hundred and one, *The Birth of a Nation* generated the loudest controversy on the issue of race; at the same time, its powerful suspense sequence in the finale made this movie a fundamental of action-movie filmmaking for the century to come.

Griffith came to movie industry in 1908 and dropped out of it in 1931. This course offers a quarter-of-a-century vast panorama of inventions and innovations, shames and triumphs, brilliant successes and spectacular failures connected with D.W. Griffith, the most famous pioneer in the history of film.

Equivalent Course(s): CMST 26405, FNDL 26405, AMER 36405, AMER 26405

CMST 36503. Scandinavian Cinema in the Classic Period (1910-1960) 100 Units.

During the 1910s Scandinavian cinema was among the most popular cinemas in the world. The best directors, actresses, and actors developed a mastery of cinematic expression and screen appearance never seen before in cinema. Erotically charged melodramas and comedies were the most popular genres, but also poetic masterpieces such as *The Passion of Joan of Arc* are key works from this era. The course will explore the breathtaking appearances of such celebrated female stars as Asta Nielsen and Greta Garbo, and analyze silent masterpieces such as Blom's early science fiction films, the dramas of Christensen, Stiller, Sjostrom, and Dreyer, and the early films of Tancred Ibsen and Ingmar Bergman. All readings are in English.

Instructor(s): E. Rossaak Terms Offered: Autumn

Prerequisite(s): PQ: CMST 10100 Introduction to Film or consent of instructor.

Equivalent Course(s): CMST 26503

CMST 36705. Kieslowski: The Decalogue. 100 Units.

In this class, we study the monumental series "The Decalogue" by one of the most influential filmmakers from Poland, Krzysztof Kieślowski. Without mechanically relating the films to the Ten Commandments, Kieślowski explores the relevance of the biblical moral rules to the state of modern man forced to make ethical choices.

Each part of the series contests the absolutism of moral axioms through narrative twists and reversals in a wide, universalized sphere. An analysis of the films will be accompanied by readings from Kieślowski's own writings and interviews, including criticism by Zizek, Insdorf, and others.

Equivalent Course(s): REES 27026, REES 37026, CMST 26705, FNDL 24003

CMST 37005. Filming the Police. 100 Units.

Filming the police" as a research topic has been taken up in a range of disciplines and subfields from legal and information studies to surveillance and police studies. In film and media studies, the 1991 George Holliday video of the beating of Rodney King by the LAPD played an important and controversial role in the formation of documentary studies as a subfield and in debates about indexicality, the nature of photographic evidence, and realism-issues at the core of the discipline. While this course will survey the topic of the filming of police from multiple perspectives, it aims to construct a specifically disciplinary framework for research on police violence. Topics to include dashboard and body cameras; surveillance, sousveillance, and the regime of visibility; investigative and citizen journalism; records management and archiving; evidence in court proceedings and in the public sphere; police, media, and ideology; the ethics and politics of looking at black suffering; art about police violence; filming the police in an international frame.

Instructor(s): S.Skvirsky Terms Offered: Winter

Equivalent Course(s): HMRT 37005, MAAD 12005, CMST 27005, HMRT 27005

CMST 37011. Experimental Captures. 100 Units.

This production-based class will explore the possibilities and limits of capturing the world with imaging approaches that go beyond the conventional camera. What new and experimental image-based artworks can be created with technologies such as laser scanning, structured light projection, time of flight cameras, photogrammetry, stereography, motion capture, sensor augmented cameras or light field photography? This hands-on course welcomes students with production experience while being designed to keep established tools and commercial practices off-kilter and constantly in question.

Instructor(s): M. Downie Terms Offered: Winter

Equivalent Course(s): MAAD 21011, ARTV 27923, CMST 27011, ARTV 37923

CMST 37020. Live Cinema. 100 Units.

This production-oriented class will examine contemporary approaches to the performed digital moving image. Through studying the range of tools and conceptual frameworks that have sought to fuse live visuals in performance in contexts spanning theater, dance, music, installation and public art, students will complete a series of critical sketches leading towards a final project using custom software developed in and for the class. Film production, music composition, and computer programming experience are welcome (but none are prerequisites for the course). Students will be expected to ultimately use the techniques they learn in a final performance.

Instructor(s): M. Downie Terms Offered: Spring

Equivalent Course(s): CMST 27020

CMST 37205. Film Aesthetics. 100 Units.

The main questions to be discussed are: the bearing of cinema on philosophy; or in what sense, if any, is cinema a form of philosophical thought? What sort of distinctive aesthetic object is a film, or what is the "ontology" of film? What, in particular, distinguishes a "realist" narrative film? What is a "Hollywood" film? What is a Hollywood genre? Authors to be read include, among others, Bazin, Cavell, Perkins, Wilson, Rothman. Films to be seen and discussed, among others, include films by Bresson, Ford, Ophuls, Cukor, Hitchcock, and the Dardenne brothers.

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Instructor(s): J. Conant, R. Pippin Terms Offered: Spring

Equivalent Course(s): CMST 27205, SETH 38112, PHIL 30208, PHIL 20208

CMST 37207. Film Criticism. 100 Units.

A workshop and seminar for both graduate students and undergraduates devoted to reading, writing, and (in the cases of some audiovisual essays and features) watching and listening to various forms of film criticism, including historical, journalistic, academic, and experimentally and artistically shaped examples of this practice. Weekly screenings and readings will help to focus the discussions, along with writing assignments that will be read aloud and critiqued in class. Part of the overall direction of this course will be determined by the particular interests of the students and their willingness to articulate them. A workshop and seminar for both graduate students and undergraduates devoted to reading, writing, and (in the cases of some audiovisual essays and features) watching and listening to various forms of film criticism, including historical, journalistic, academic, and experimentally and artistically shaped examples of this practice. Weekly screenings and readings will help to focus the discussions, along with writing assignments that will be read aloud and critiqued in class. Part of the overall direction of this course will be determined by the particular interests of the students and their willingness to articulate them.

Instructor(s): J. Rosenbaum Terms Offered: Autumn

Equivalent Course(s): CMST 27207

CMST 37220. Classical Film Theory. 100 Units.

This seminar will present a critical survey of the principal authors, concepts, and films in the classical period of film theory. The main though not exclusive emphasis will be the period of silent film and theorists writing in the context of French and German cinema. We will study the aesthetic debates of the period in their historical context, whose central questions include: Is film an art? If so, what specific and autonomous means of expression define it as an aesthetic medium? What defines the social force and function of cinema as a mass art? Weekly readings and discussion will examine major film movements of the classical period—for example, French impressionism and Surrealism—as well as the work of major figures such as Vachel Lindsay, Hugo Münsterberg, Rudolf Arnheim, Jean Epstein, Germaine Dulac, Béla Balázs, Erwin Panofsky, Hans Richter, Siegfried Kracauer, Walter Benjamin, André Bazin, and others.

Instructor(s): D.N. Rodowick Terms Offered: Spring

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): CMST 27220

CMST 37230. Modern Film Theory. 100 Units.

This course will examine influential writings on photography, film, and film narrative published in the post-war period in the context of semiology, structuralism, and narratology. We will examine how questions of form, structure, and narrative in film and photography are addressed by critics writing from the end of World War II until the early seventies, especially in France and Italy. In what ways can the image be considered a sign? How do images come to have meaning in a denotative or connotative sense? What are the principal codes organizing images as narrative media and how do spectators recognise those codes? Readings will include work by Roland Barthes, Christian Metz, Jean Mitry, Noël Burch, Raymond Bellour, Umberto Eco, Pier Paolo Pasolini, and David Bordwell, among others.

Instructor(s): D.N. Rodowick Terms Offered: Winter

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): CMST 27230

CMST 37802. Art and Public Life. 100 Units.

The aim of this seminar-colloquium will be to work through some of the most advanced thinking on ideas about publics and their relation to questions of community, politics, society, culture, and the arts. From John Dewey through Hannah Arendt and Jurgen Habermas, the notion of the public has remained central to a wide variety of debates in the humanities and social sciences. What is a public? How are publics constituted? What is the role of real and virtual space, architectural design, urban planning, and technical media, in the formation of publics? And, most centrally for our purposes, what role can and do the arts play in the emergence of various kinds of publics? The colloquium aspect of the course will involve visiting speakers from a variety of disciplines, both from the University of Chicago faculty, and from elsewhere.

Instructor(s): W.J.T. Mitchell, T. Gates Terms Offered: Autumn

Equivalent Course(s): ENGL 32821, ARTV 37911, ARTH 47911, MUSI 35014

CMST 37805. Framing, Re-framing, and Un-framing Cinema. 100 Units.

By cinema, we mean the art of the moving image, which is not limited to the material support of a flexible band called film. This art reaches back to early devices to trick the eye into seeing motion and looks forward to new media and new modes of presentation. With the technological possibility of breaking images into tiny pixels and reassembling them and of viewing them in new way that this computerized image allows, we now face the most radical transformation of the moving image since the very beginnings of cinema. A collaboration between the OpenEndedGroup (Marc Downie and Paul Kaiser), artists who have created new modes of the moving image for more than decade, and film scholar Tom Gunning, this course will use this moment of new technologies to explore and expand the moving image before it becomes too rigidly determined by the powerful industrial forces now propelling it forward. This course will be intensely experimental as we see how we might use new computer algorithms to take apart and re-experience classic films of the past. By using new tools, developed for and during this class, students will make new experiences inside virtual reality environments for watching, analyzing, and recombining films and that are unlike any other. These tools will enable students, regardless of previous programming experience, to participate in this crucial technological and cultural juncture.

Equivalent Course(s): CMST 27805, ARTV 30805, ARTV 20805

CMST 37810. Cinema and New Media. 100 Units.

Over the past two decades, new media such as television, computers and the web, digital image production, and video games have begun to transform, and even supplant, the social and cultural prominence of cinema. This course will look at how these media work: the history of their development, the changes they have brought about in a broader media culture, their political implications, and their social status and significance (e.g., the place they occupy in culture, the kinds of interactions they make possible). The focus will equally be on the ways in which cinema has responded to the changing digital landscape, which will be explored through both blockbuster and experimental films as well as video and web-based art. Readings will be taken from the history of film theory, recent work in media history and archeology, and theoretical studies of digital media and technology.

Instructor(s): D. Morgan Terms Offered: Autumn

CMST 37911. Augmented Reality Production. 100 Units.

Focusing on experimental moving-image approaches at a crucial moment in the emerging medium of augmented reality, this class will explore and interrogate each stage of production of AR works. Students in this production-based class will examine the techniques and opportunities of this new kind of moving image. During this class we'll study the construction of examples across a gamut from locative media, journalism, and gameplay-based works to museum installations. Students will complete a series of critical essays and sketches towards a final augmented reality project using a custom set of software tools developed in and for the class.

Instructor(s): M. Downie Terms Offered: Autumn

Equivalent Course(s): CMST 27911, MAAD 22911, ARTV 27921, ARTV 37921

CMST 37915. Introduction to Videogame Studies: Art, Play, and Society. 100 Units.

This course is intended as an introduction to the study of videogames in the humanities. Topics include videogame form (visual style, spatial design, sound, and genre); videogames as a narrative medium; embodiment and hapticity in videogame play; issues of identity/identification, performance, and access related to gender, sexuality, race and ethnicity, ability, and class; and rhetorical, educational, and political uses of videogames. Just as the videogame medium has drawn from older forms of art and play, so the emerging field of videogame studies has grown out of and in conversation with surrounding disciplines. With this in mind, readings and topics of discussion will be drawn both from videogame studies proper and from other fields in the humanities - including, but not limited to, English, art history, and cinema and media studies. Undergraduates should be prepared for an MA-level reading load but will write final papers of the standard length for upper-level undergraduate courses (8-10 pages versus 12-15 for MA students). MA students interested in pursuing a particular research topic in-depth will be given supplemental readings. This course will also be designed to take advantage of the University of Chicago's videogame collection, and will require game play both individually and as part of group play sessions.

Instructor(s): Christopher Carloy Terms Offered: Spring

Note(s): Email for instructor consent

Equivalent Course(s): DIGS 20010, ENGL 34515, MAAD 27915, MAPH 34515, ENGL 24515, DIGS 30010, CMST 27915

CMST 37920. Virtual Reality Production. 100 Units.

Focusing on experimental moving-image approaches at a crucial moment in the emerging medium of virtual reality, this class will explore and interrogate each stage of production for VR. By hacking their way around the barriers and conventions of current software and hardware to create new optical experiences, students will design, construct and deploy new ways of capturing the world with cameras and develop new strategies and interactive logics for placing images into virtual spaces. Underpinning these explorations will be a careful discussion, dissection and reconstruction of techniques found in the emerging VR "canon" that spans new modes of journalism and documentary, computer games, and narrative "VR cinema." Film production and computer programming experience is welcome but not a prerequisite for the course. Students will be expected to complete short "sketches" of approaches in VR towards a final short VR experience.

Instructor(s): M.Downie Terms Offered: Autumn

Equivalent Course(s): CMST 27920, ARTV 37920, ARTV 27920, MAAD 24920

CMST 38006. Minimalist Experiment in Film and Video. 100 Units.

This multilevel studio will investigate minimalist strategies in artists' film and video from the late 1960s to the present day. Emphasis will be placed on works made with limited means and/or with "amateur" formats such as Super-8 and 16mm film, camcorders, Flip cameras, SLR video, and iPhone or iPad. Our aim is to imagine how to produce complex results from economical means. Important texts will be paired with in class discussion of works by artists such as Andy Warhol, Yoko Ono, Kurt Kren, Jack Goldstein, Larry Gottheim, Bruce Baillie, James Benning, John Baldessari, Morgan Fisher, Stan Douglas, Matthew Buckingham, Sam Taylor-Wood, and others.

Instructor(s): D.N. Rodowick Terms Offered: Autumn

Equivalent Course(s): ARTV 33815, CMST 28006, MAAD 23805, ARTV 23805

CMST 38100. Issues in Film Music. 100 Units.

This course explores the role of film music in the history of cinema. What role does music play as part of the narrative (source music) and as nondiegetic music (underscoring)? How does music of different styles and provenance contribute to the semiotic universe of film? And how did film music assume a central voice in twentieth-century culture? We study music composed for films (original scores) as well as pre-existent music (e.g., popular and classical music). The twenty films covered in the course may include classical Hollywood cinema, documentaries, foreign (e.g., non-Western) films, experimental films, musicals, and cartoons.

Instructor(s): B. Hoekner

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): MUSI 22901, CMST 28100, MUSI 30901

CMST 38202. Contemporary Documentary. 100 Units.

In our era of post-truth, this course proposes to investigate strategies developed by contemporary documentaries to present and/or question facts, truth, and objectivity. Among other topics, we will consider questions such as the following: What lines can be drawn between discourse, representation, and fiction? Do these documentaries aim to create truthfulness or skepticism? What kind of awareness--individual, social, or political--to they try to raise and promote?

Instructor(s): D. Blucher Terms Offered: Spring

Equivalent Course(s): CMST 28202

CMST 38265. Biography, History, Art: Documenting Blakelock. 100 Units.

This Gray Center sponsored research practicum is tied to a film project with documentary-maker and Mellon Collaborative Fellow Ric Burns about outsider artist Ralph Blakelock. America's van Gogh, Blakelock created art far ahead of his time, went mad, and spent nearly twenty years in an asylum before emerging into the glare of flashbulbs as the most sought-after painter of the 1910s, only to end his life as victim of a con game. In between, he sojourned with the Sioux, hobnobbed with Gilded Age millionaires, channeled Longfellow and Mendelssohn in his art, struggled in the emergent New York "art world", played vaudeville piano, and became one of the first major figures in modern celebrity-driven mass media. How best to capture this kaleidoscopic life and Blakelock's dizzying art in a documentary is the creative challenge of the seminar. Our focus will be on Blakelock's *Ghost Dance/The Vision of Life*. Art Institute conservators, assisted by chemistry department Professor Steven Sibener, will use scientific imaging to see inside the painting, whose provenance and context of production and reception need to be researched. Participants will be assigned to specific topics based on area of expertise. The course should be of particular interest to students in DOVA, Art History, History, English, Psychology, Chemistry, Cinema Studies, and Anthropology.

Instructor(s): Lawrence Rothfield; Ric Burns Terms Offered: Spring

Prerequisite(s): Instructor consent required. Open to students at all levels, undergraduate and graduate. Email a letter of interest to Professor Rothfield: lary@uchicago.edu.

Equivalent Course(s): CMST 28265, ENGL 26522, ENGL 36522, ARTV 30203, ARTV 20203

CMST 38310. Kafka and Performance. 100 Units.

This laboratory seminar is devoted to exploring the texts of Franz Kafka through the lens of performance. In addition to weekly scenic experiments and extensive critical readings (on Kafka as well as performance theory) we will explore the rich history of adapting Kafka in film, theater, puppetry, opera, and performance.

Equivalent Course(s): TAPS 32110, TAPS 22110, GRMN 23110, CMST 28310, GRMN 32110, FNDL 22115

CMST 38700. History of International Cinema, Part III: 1960 to Present. 100 Units.

This course will continue the study of cinema around the world from the late 1950s through the 1990s. We will focus on New Cinemas in France, Czechoslovakia, Germany, the United States, the United Kingdom, and other countries. We will pay special attention to experimental stylistic developments, women directors, and well-known auteurs. After the New Cinema era we will examine various developments in world cinema, including the rise of Bollywood, East Asian film cultures, and other movements.

Instructor(s): J.Lastra Terms Offered: Spring

Note(s): This course follows the subject matter taught in CMST 28500/48500 and CMST 28600/48600, but these are not prerequisites.

Equivalent Course(s): CMST 28700, MAAD 18700

CMST 38703. Video Art: The Analog Years. Theory, Technology, Practice. 100 Units.

The course gives a critical introduction to early video and television art - from the proto-televisual impulses in the historical avant-gardes to the increasing proximity between analog and digital technologies in video art in the late 1970's and early 1980's. We will focus on the various technical aspects of analog video, as well as on artistic practice and early writings on the subject. Topics will include the technics and politics of time; video, feedback systems and ecology; the reconfiguration of the artist's studio; guerilla politics and alternative TV; video and autobiography; the relation between video and painting; the musical history of video; the invention of new machines; and video as a "television viewer".

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): MAAD 18703, ARTH 31313, CMST 28703, ARTH 21313

CMST 38921. Introduction to 16mm Filmmaking. 100 Units.

The goal of this intensive laboratory course is to give its students a working knowledge of film production using the 16mm gauge. The course will emphasize how students can use 16mm technology towards successful cinematography and image design (for use in both analog and digital postproduction scenarios) and how to develop their ideas towards constructing meaning through moving pictures. Through a series of group exercises, students will put their hands on equipment and solve technical and aesthetic problems, learning to operate and care for the 16mm Bolex film camera; prime lenses; Sekonic light meter; Sachtler tripod; and Arri light kit and accessories. For a final project, students will plan and produce footage for an individual or small group short film. The first half the class will be highly structured, with demonstrations, in-class shoots and lectures. As the semester continues, class time will open up to more of a workshop format to address the specific concerns and issues that arise in the production of the final projects. This course is made possible by the Charles Roven Fund for Cinema and Media Studies.

Instructor(s): T. Comerford Terms Offered: Winter

Equivalent Course(s): CMST 28921, MAAD 23808, ARTV 33808, ARTV 23808

CMST 38922. Intermediate 16mm Filmmaking. 100 Units.

This course will allow students to continue working on projects begun in the Intro to 16mm Production course (or developing a new small-scale project), in addition to developing skills with the following: sophisticated approaches to cinematography (comparative and reflective light metering, color negative exposure); varying workflows for post-production editing (analog and digital); and sound recording and design. Students will meet as a group for lectures, technical demonstrations and a shooting workshop. Course meeting time will also be set aside for individual conferences with the instructor to address project development and completion. Students should expect to budget between 120.00-500.00 for their filmstock and processing costs, depending on the project. This course is made possible by the Charles Roven Fund for Cinema and Media Studies. Instructor permission required.

Instructor(s): T. Comerford Terms Offered: Spring

Prerequisite(s): Permission from instructor is required for registration. Students will bid for entry to the class by emailing tcomerford@uchicago.edu, listing their year, major and previous production experience. Priority will be given to students who have previously completed the Intro to 16mm course, followed by CMS and DOVA majors, from graduate students to first-years. Students whose bids are accepted will be registered officially by the instructor at the first class meeting.

Equivalent Course(s): ARTV 38001, ARTV 28001, CMST 28922

CMST 39002. Motion Pictures in the Human Sciences. 100 Units.

This course will examine the relationship between moving images, particularly motion-picture films, and the human sciences, broadly construed, from the early days of cinema to the advent of functional magnetic resonance imaging (fMRI). It will use primary source documents alongside screenings to allow students to study what the moving image meant to researchers wishing to develop knowledge of mind and behavior, and what they thought film could do that still photography and unmediated human observation could not. The kinds of motion pictures we will study will vary widely, from infant development studies to psychiatric films, from documentaries to research films, and from films made by scientists or clinicians as part of their laboratory or therapeutic work to experimental films made by seasoned filmmakers. We will explore how people used the recordings they made in their own studies, in communications with other scientists, and for didactic and other purposes. We will also discuss how researchers' claims about mental processes-perception, memory, consciousness, and interpersonal influence-drew on their understandings of particular technologies.

Terms Offered: Spring

Equivalent Course(s): HIST 35208, HIST 25208, HIPS 25208, CHSS 35208, CMST 29002

CMST 39300. Aesthetics: Phil/Photo/Film. 100 Units.

Equivalent Course(s): ARTH 37301, PHIL 21100, CMST 29300, PHIL 31301, ARTH 27301

CMST 40000. Methods and Issues in Cinema Studies. 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard.

Instructor(s): S.Skvirsky Terms Offered: Autumn

Equivalent Course(s): MAPH 33000, ARTH 39900, ENGL 48000

CMST 42719. Music, Emotions and Modernity. 100 Units.

This seminar explores the relationship between music and emotion, focusing on emotions that have a special affinity with the experience of modernity, as expressed in music and film. A major portion of the seminar will be concerned with mixed emotions, including forms of pleasurable sadness, ranging from the Elizabethan cult of melancholia prominent in the music of John Dowland to modern bitterness, as manifest in nineteenth-century melodrama and such films as *Back Street* (1941) and *La La Land* (2016). Readings will include scholarship in musicology and film studies as well as empirical research in psychology and affect theory. Participants will take turns in functioning as "experts" for select seminar sessions by preparing readings and objects for class discussion. Participants taking the class for credit will present a 25-minute research paper at a mini-conference in Week 11.

Instructor(s): Berthold Hoeckner Terms Offered: Autumn. Offered Autumn 2018 Thursdays 9:30am-12:20pm in JRL room 264

Equivalent Course(s): MUSI 42719

CMST 43418. Surrealism and Cinema. 100 Units.

This seminar examines the relations between Surrealism and the cinema in interwar France, and the aesthetic, political, and theoretical debates produced by their encounter. To what extent may Surrealism, in its varied iterations, be productively read through the optic of cinema, and even as a cinematic movement? And to what extent is cinema an implicitly Surrealist medium? In addition to tracing a precise history of Surrealism, cinema, and its discontents during this period through works by Louis Aragon, Antonin Artaud, Georges Bataille, Walter Benjamin, André Breton, Luis Buñuel, René Clair, Joseph Cornell, Salvador Dalí, Robert Desnos, Germaine Dulac, Louis Feuillade, Sigmund Freud, Jean Painlevé and Geneviève Hamon, Jean Vigo, and others, this class explores the potential of Surrealism as a methodology for critical and theoretical studies of cinema, literature, culture, and history.

Equivalent Course(s): FREN 36218

CMST 44601. Opera Film: China / Europe: Thinking Media Hybridity across Cases. 100 Units.

This seminar will explore the mutual attraction of cinema and opera across the two vast operatic cultures of Europe and China in order to interrogate the many cross-cultural issues that their media encounters produce and accentuate. Such issues include changing relations to myth, ritual, history, and politics; cross-dressing and gender-bending; closed forms or open; stock characters and plots or narrative fluidity. We will ask why in both China and Europe, opera repeatedly became the conflicted site of nationalist and modernizing aspirations, reiterations of tradition, and attempts at avant-gardism. When the presumed realism of film meets the extravagant hyperperformativity of opera, the encounter produces some extraordinary third kinds-media hybrids. Film repeatedly wrestled with the inherent histrionics of opera through the use of such devices as close-ups, camera angles, shot reverse shot, displacement of sound from sight, acousmatic sound, and trick photography. Such devices were generally meant to suture the supposed improbabilities of the operatic art form, incongruities often based on extravagant and transcendent relationships to realism. Such cinematic renderings of opera are highly revealing of fundamental faultlines in the genres themselves and revealing of the cultures that produced them.

Instructor(s): J. Zeitlin and M. Feldman Terms Offered: Winter

Equivalent Course(s): EALC 41401, MUSI 45019, CDIN 41401, TAPS 41401, ITAL 41419

CMST 44606. China's New Documentary Cinema. 100 Units.

Since the early 1990s, the "new documentary" has emerged as one of the most prominent phenomena in Chinese film and video, widely circulating at international film festivals and eliciting considerable critical debate. This course examines the styles and functions of China's "new documentary" over the last fifteen years, paying particular attention to the institutional, cultural, economic, and political conditions that underpin its flourishing. This overview will lead us to consider questions that concern the recent explosion of the documentary form worldwide, and to explore the tensions and imbalances that characterize the global circulation of the genre. We will address such issues as: what is "new" about China's recent documentary cinema; the "national" and "transnational" dimensions of documentary filmmaking, and the ways in which these dimensions intersect in its production and circulation; the extent to which the international demand for "unofficial" images from China has contributed to its growth; the politics involved in documentary filmmaking, and the forms and meanings of "independent" cinema in the wake of intensified globalization; the links between Chinese documentary and the global rise of documentary filmmaking, and the ways in which they challenge extant concepts and theorizations of the genre.

Instructor(s): P. Iovene

Equivalent Course(s): EALC 24502, CMST 24606, EALC 35402

CMST 47803. The Body of Cinema: Hypnoses, Emotions, Animalities. 100 Units.

Equivalent Course(s): CMST 27803, ENGL 37803

CMST 47815. Media Atmospheres: Art, Technology, and Environment in the 21st Century. 100 Units.

In the late 1990's and early 00's contemporary art seemed to turn towards design and architecture, leading many critics to claim that the boundaries between the practices of art and design were eroding. This course proposes a different line of inquiry, based on the fact that so many of the artworks in question were in fact hidden media machines, improvisations on a life environment increasingly suffused in the dynamics of networked media technologies and their various modes of time production and -control. Elements of design and architecture were in other words enlisted in the construction of what we may call media atmospheres, everyday sensorial surrounds that addressed the intimate integration of bodies and real-time technologies in the information economy, a new modality of the capture of life forces that Michel Foucault called biopolitics. The course will be oriented around a close study of a select number of artistic positions, in addition to reading theoretical and critical texts that are important to the artists in question as well as to the larger field of discussion. Ultimately, the course is about a form of new media art less invested in technical invention than in new aesthetic techniques of social/environmental production.

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): ARTH 41315

CMST 48117. Seminar: Music in Sound Studies. 100 Units.

This graduate research seminar will explore the relationship between film music and film sound. Our focus will be exploratory, based on an eclectic list of films, supplemented by relevant readings in film music studies and film sound studies. Participants will provide sample analyses of films, short reports on weekly readings, and write a research paper to be presented at a mini-conference in Week 11.

Equivalent Course(s): MUSI 44417

CMST 48500-48600. History of International Cinema I-II.

This sequence is required of students majoring in Cinema and Media Studies. Taking these courses in sequence is strongly recommended but not required.

CMST 48500. History of International Cinema I: Silent Era. 100 Units.

This course provides a survey of the history of cinema from its emergence in the mid-1890s to the transition to sound in the late 1920s. We will examine the cinema as a set of aesthetic, social, technological, national, cultural, and industrial practices as they were exercised and developed during this 30-year span. Especially important for our examination will be the exchange of film techniques, practices, and cultures in an international context. We will also pursue questions related to the historiography of the cinema, and examine early attempts to theorize and account for the cinema as an artistic and social phenomenon.

Instructor(s): A. Field Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): CMST 28500, ARTH 38500, CMLT 22400, MAAD 18500, ARTV 20002, ENGL 48700, CMLT 32400, MAPH 33600, ARTH 28500, ENGL 29300

CMST 48600. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, ENGL 48900, MAAD 18600, REES 45005

CMST 48600. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, ENGL 48900, MAAD 18600, REES 45005

CMST 53500. Guillotine / Barricade: Figures of History Across Media. 100 Units.

Taking up the French historical technologies of the guillotine and the barricade, this doctoral seminar explores the history of political spectacle, violence, death, and resistance as also part of a history of figuration-conceptualized by Julia Kristeva as the establishment of a relation between two historical realities-across media. We will examine the actual materials and practices of the guillotine and the barricade alongside literary, artistic, and filmic works that deploy the figural logic of both technologies as part of their formal, representational, and/or political articulation. This seminar thus seeks to examine the methodological stakes of inter-medial and interdisciplinary history and historiography that draws equally from French history, literature, visual art (including sculpture), architecture, and film. This class will be taught in English; French reading and research skills are not necessary, but would be beneficial.

Instructor(s): J. Wild Terms Offered: Spring

Equivalent Course(s): FREN 43501, CDIN 53500

CMST 57200. Film Semiotics: Toward a Linguistic Anthropology of Cinema. 100 Units.

In this seminar we explore a series of topics in the semiotics of film as approached through the semiotic theory developed out of linguistic anthropology: topics will include revisiting questions of structuralist film semiology; iconicity, textuality, and the poetic function; indexicality and ontology; deixis and enunciation; voicing and structures of looking; performativity and image-acts; aesthetic style and enregisterment; rigid designation and stardom. The larger aims of the course are two-fold: one, to articulate a pragmatic account of the evenemential semiotics of cinema as institutional and textual form-as broached both through ethnographic and close textual methods of analysis-and in doing reconceptualize certain key film theoretic issues; two, to expand and rethink linguistic anthropology's semiotic theory and analysis beyond language/through cinema; in short, to think both film studies and linguistic anthropology with and against each other so as to further a semiotics of moving images.

Instructor(s): Constantine V. Nakassis Terms Offered: Autumn. Autumn 2019

Equivalent Course(s): ANTH 57400

CMST 59900. Reading And Research: Cmst. 100 Units.

This course is intended for graduate students in the Cinema and Media Studies program; the subject matter, course of study, and individual requirements are arranged with the instructor prior to registration.

CMST 61001. Black Film as Art / Black Art as Film. 100 Units.

The aesthetic dimensions of "Black film" tend to be subordinated to historical, social and political lines of inquiry - histories of "art film" tend not to include works by Black artists. This seminar foregrounds questions of form and style in film and video works by a wide range Black artists in order to develop new ways of understanding the complex, mutually constitutive relations between Blackness and the moving image. We will pursue experimental practices by Black film and video makers - beginning in the era of segregated "race film" production of the 1910s-40s, considering moments of stylistic experimentation in the narrative films of Micheaux, Maurice and Williams. We then discuss later film and videomakers who work more consistently and explicitly in experimental modes - the second category includes film and video works by Black visual and performance artists who exhibit in gallery and museum contexts. Along the way, we will discuss intersections with vanguard practices in related art forms, curatorial efforts, and movements between the art world and the film industry.

CMST 61032. Theory, Blackness, and Cinema. 100 Units.

This seminar explores what might be encountered under the categories of "Blackness" and "audio-visibility" with an emphasis on African-American and Black diasporic audio-visual culture. We will consider a range of studies of "Blackness" produced in English in the areas of African American and Black Studies, cinema and media studies, performance studies, art history, and visual studies.

Instructor(s): K. Keeling Terms Offered: Spring

CMST 61102. The L.A. Rebellion and the Politics of Black Cinema. 100 Units.

Equivalent Course(s): CRES 61102

CMST 61820. Minstrelsy-Vaudeville-Cinema: Racialized Performance and American Popular Culture. 100 Units.

What would it mean to say that minstrelsy was a foundational practice in the development of American popular culture, and that the emergence of American cinema must be understood through the lens of its ubiquity? This course therefore investigates the persistence of minstrelsy in American popular culture from the early 19th century to the turn of the 20th century. It traces the development of its tropes, themes, and practices from traveling tent shows to the variety theater of vaudeville and to the emergence of cinema. We will attempt to make legible the functionings of its racist caricatures, account for its popularity and longevity, and explore moments of creative resistance to its dehumanizing portrayals of African Americans. We will look at 19th century performers and composers including T.D. Rice, Billy Kersands, Stephen Foster, Bert Williams and George Walker, Ernest Hogan, May Irwin, Sissieretta Jones. We will also consider later filmmakers working with and against the racialized representations of minstrelsy including D.W. Griffith, Al Jolson, Oscar Micheaux, and Stepin Fetchit, and contemporary reimaginings, confrontations and reckonings, including those of Spike Lee, Dave Chappelle, Christopher Harris, and Edgar Arceneaux. Emphasis will be on methods of primary historical research as well as theories of race, gender and performance.

Instructor(s): A.Field Terms Offered: Winter

Equivalent Course(s): TAPS 51820

CMST 63701. History in the Image. 100 Units.

This seminar undertakes a study of primarily post-World War II French and Belgian film and art movements in order to query the different status and conceptualization of the image and its relationship to history. We will begin our study with a brief look into pre-WWII of avant-garde art and film movements, and classic theories of the avant-garde. Turning our attention to late Surrealist practices, and the rise of neo-avant-garde movements such as Lettrism and the Situationist International, we will grapple with how these groups both understood the stakes of the image and history, as well as developed theoretical models to transform the agency of both within their political aesthetics. We will subsequently ask similar questions of the films and theories that eventually define the French New Wave before moving on to think about social documentary, politically militant image production, and collective film and art practices.

Instructor(s): Jennifer Wild Terms Offered: Spring

Note(s): Reading knowledge of French is not required, but may prove beneficial. Screenings are mandatory. With some possible exceptions, all films will be subtitled. Students enrolled through the FREN section will be required to complete all reading and writing in French.

Equivalent Course(s): ARTH 43701, FREN 43713

CMST 64904. Remapping New Waves: New Cinemas, Film Theory and Criticism in Japan. 100 Units.

We have recently seen a growing number of works that aimed at a broader and renewed understanding of the new cinemas of the 1960s in Japan, with more complex accounts of the historical, geographical, and geopolitical trajectory of the Japanese New Wave. Ongoing investigations have largely ascribed its rise to Oshima Nagisa, the central figure in the publicity-driven phenomenon known as the "Sho#chiku Nouvelle Vague" (Nu#beru Ba#gu). Amidst these new scholarly texts, there are still a series of theoretical and historical/historiographical questions that have remained underexplored: where did the Japanese New Wave come from, and what actually constituted it? How did the emergence of the new cinema intersect with larger media, social, and intellectual history? Did the cinematic medium have to be radicalized in order to become 'new'? How was such 'newness' visualized, acousticed, and registered by other sensory cues in the cinema? How was the emergence of the new cinema in dialogue with institutions? Placing films in the contexts of the era's media-scape, this course will delve into an analytical reconsideration of this rich period of Japanese cinema specifically from the perspective of the Japanese New Wave. While we will aim to capture the exhilaration of the Japanese New Wave by closely analyzing existing studies on some of its key makers and their works, special attention will be given to what has been left out of the category as it is conventionally understood, such as educational and industrial films. All required readings are in English. Participants with reading ability in Japanese will be asked to take on additional readings in Japanese and present on them in class.

Equivalent Course(s): EALC 44904

CMST 67100. Realism, Social Modernism: Aesthetics and Politics Between the Wars. 100 Units.

The theoretical influence of arguments in the 1920s and 1930s about the relative value of realism and modernism is well known, but the entwinement of theory with cultural production and political debates is less so. This intensive reading course will attempt to historicize theory between the world wars--or more specifically between Bolshevik and German revolutionary responses to the first war and Popular Front against the rise of Fascism leading to the second--by reevaluating the work relatively familiar theorists such as Benjamin, Lenin, and esp. Lukacs in the light of their interlocutors, in fiction, film, and drama Brecht, Gladkov, Gorki, Pudovkin, Eisenstein, Dovzhenko, Seghers, Sholokhov, Christa Wolf, Konrad Wolf, Frank Beyer and their counterparts in America, the Living Newspaper, Film and Photo League, writers for New Masses as well as in theory Bloch, Eisler, Zhdanov, Kenneth Burke, Mike Gold, John Howard Lawson, among others. Essential texts are available in English but working knowledge of German (or Russian) and/or marxist theory very helpful.

Instructor(s): Loren Kruger Terms Offered: Autumn

Equivalent Course(s): GRMN 43700, ENGL 59401, CMLT 59400, SCTH 59400, TAPS 59400

CMST 67103. The Camera and Other Creatures. 100 Units.

Since the advent of photography, artists and commentators have likened the camera to an eye. Immediately, it became apparent that the eye in question was not quite human. The nature of the "creature" incorporating the camera eye has been the subject of speculation and disagreement ever since. In this class we will examine the relationship between human and machine perception, and the possibility of non-human filmic subjectivities. Epstein's "the Bell and Howell is a metal brain," Vertov's "Kino-eye," Benjamin's optical unconscious, theories of the animistic camera, the possessed cameras of Jean Rouch and Maya Deren, Michael Snow's mechanical landscape cinema will all be important points of reference. We will screen films by these filmmakers as well as surveillance, microscopic, and underwater films. This class is dedicated to interrogating and celebrating the manners in which the camera (and the microphone as well) allow us access to an expanded perception.

Instructor(s): J.Lastra Terms Offered: Spring

CMST 67203. Contemporary Film Theory. 100 Units.

This course will read and discuss the body of film theory that emerged after 1960, beginning with the work in film semiology of Christian Metz, through the theorists of the sixties that David Rodowick includes under the term "political modernism;" the theorist associated with Screen (such as Stephen Heath) and their debates with the Post Theorists such as Bordwell and Carroll, the work of Stanley Cavell on film, and ending with a consideration of Giles Deleuze and his Cinema books.

Instructor(s): Tom Gunning Terms Offered: Autumn

CMST 67204. Cinema and Experience. 100 Units.

This seminar will be devoted to close reading of Miriam Hansen's path-breaking book, *Cinema and Experience*. As the most influential exponent of Critical Theory in cinema and media studies, we will discuss Hansen's major contributions to the field, including her important reassessments of concepts of the public sphere and experience, modernity and mass culture, aesthetics and politics, the play-form of second nature, utopia and counter-utopia, and alternative accounts of spectatorship among others. We will also read in parallel and discuss the major texts of Theodor Adorno, Walter Benjamin, and Siegfried Kracauer that are the basis of her unique reconstruction of Critical Theory as a philosophy of cinema, photography, and visual culture.

Instructor(s): D. N. Rodowick Terms Offered: Spring

CMST 67207. Aesthetics. 100 Units.

This seminar explores the intersection of film and philosophical aesthetics. Aesthetics has become a curiously central topic not only within cinema and media studies but also in the disciplines that surround it. From speculative realists to critical theorists to political theorists of various stripes; aesthetics have been taken to have methodological and conceptual primacy. This course takes several paths to explore and evaluate these accounts. First, it looks at the question of why aesthetics has emerged in the present situation: what unresolved questions or problems does it respond to? What is its appeal for the current state of politics and media? Second, it places the recent debates within a longer history of philosophical aesthetics. Which resources from this tradition are being drawn on-and, of equal importance, which are not? Last, the course examines the usefulness of aesthetics within cinema and media studies by testing it against the details of film form. To this end, we will look at several key moments in the history and theory of montage to see whether aesthetics can provide new insights.

Instructor(s): D. Morgan Terms Offered: Autumn

CMST 67211. What Was *Mise-en-scène*? 100 Units.

Mise-en-scène is often understood as a synonym for the act of directing, especially in theater. In film style it is associated with the importance accorded to the placement of props and characters within the film frame, usually in combination with camera movement. This concept was especially important in film criticism of the fifties and sixties and often connected with key post-WWII filmmakers such as Nicholas Ray, Douglas Sirk and Otto Preminger. This seminar will explore the concept both as historical critical concept, and as an ongoing way to discuss the nature of film style.

Equivalent Course(s): ARTH 47211

CMST 67404. Cinema/Labor. 100 Units.

As recent dossiers, books, and essays devoted to labor in film studies and in literary studies suggest, contemporary anxiety over structural transformations in the sphere of work has prompted a renewed interest in the intersection between labor and aesthetic production. This seminar will explore-- through both historical and formal approaches--the encounter between the topic "labor/work" and the varieties of its poeticization in cultural expression across genres, media, and media platform-but particularly in cinema. Topics will include the aestheticization of labor; labor and gesture; automation and machine aesthetics; anti-work politics; commodity fetishism and industrial film; cultural evolutionism and ethnographic cinema; pictorial instructions and educational cinema; absorption and the process genre; craftsmanship and skill; affective and other forms of immaterial labor; the operational aesthetic; and leisure.

Instructor(s): S.Skvirsky Terms Offered: Winter

CMST 67411. Film Theory and the Competition of Modernisms. 100 Units.

This seminar explores the emergence of film theory during the period between the mid-1960s and mid-1970s. Part of the aim is historiographic: to look at accounts of how and why something called Film Theory emerged in the wake of a set of intellectual, political, and institutional forces. The main focus of the seminar, however, will be to create an alternate approach to a set of questions that-as the recent resurgence of work on Film Theory show-have not gone away, and also to pick up a set of questions and topics that got left by the wayside. We'll examine the idea that film theory arose in these years as a struggle over the legacy and meaning of modernism, especially an inheritance of modernist movements in the 1920s and 1930s. Among the central ideas to be explored is that the line between theory and criticism was extremely porous in this period, and that film theory emerged out of a sustained dialogue with debates in art history. The seminar will trace three strands of film theory that laid claim to different modernist traditions: one exemplified by Stanley Cavell and Michael Fried; a second by Annette Michelson and Rosalind Krauss; and a third by Peter Wollen and what has been called "Screen Theory."

Instructor(s): D.Morgan Terms Offered: Spring

Note(s): Readings will position central texts from these strands of theory alongside their modernist influences, from Cubism to Duchamp to Dada to Benjamin to Brecht. The debates between major journals of the time, including *Art Forum*, *October*, and *Screen*, will be central to this history. Screenings will focus on work from Classical Hollywood, the rise of global new waves, and the American avant-garde.

Equivalent Course(s): ARTH 47411

CMST 67812. The Archive of Absence: Theories and Methodologies of Evidence. 100 Units.

In this graduate seminar we will investigate theories and historiographic methodologies of approaching problems of evidence in film history, with a particular focus on approaches to nonextant film, film fragments, unidentified film, and other "mysteries" of film history. Some of these problems are about gaps: how has film history grappled with the absence and instability of the film artifact? Others, especially in a newly digital world, involve abundance: how can film history and historiography navigate the polyvalences of meaning brought about by an ever-expanding archive? This course will combine theoretical readings, analyses of case studies, and students' own research. Topics to be covered include the use of extrafilmic evidence and primary paracinematic evidence, fiction and speculative approaches to history, theories of evidence, and archival theories and practices. We'll also focus on the possibilities and limits of various historiographic methodologies, touching on the use of oral history, biographic research, and official and unofficial discourses. Cases will be drawn from the silent era to contemporary cinema, and from a range of film practices including avant-garde, Classical Hollywood, African American, European art cinema, and others.

Instructor(s): A. Field Terms Offered: Spring

CMST 67814. Cinema Without an Archive. 100 Units.

This seminar takes a comparative approach to issues of archival precarity with particular attention to cinema, memory, and materiality. We will investigate the fraught and contested histories and problems of the archive and the limitations of archival thinking and practice in a comparative context, focusing on post-colonial and post-conflict sites in the Middle East, Asia, Africa, as well as the low rates of survival for minoritarian film practices in the United States. Some of these problems are about gaps: how do we attend to the absence and instability of the film artifact? How do these problems surface-and how are they mediated-in postcolonial sites that grapple with conflict, weak state structures, and contested commemorative practices and issues? Other questions concern definitive versions, remediation, degraded extant material, and barriers to archival access. Topics include the use of extrafilmic evidence and primary paracinematic evidence, fiction and speculative approaches to history, theories of evidence, archival theories and practices, commemorative practices, and the role of state and nongovernmental institutions in the formation of cultural memory.

Instructor(s): Allyson Nadia Field & Ghenwa Hayek Terms Offered: Winter

Prerequisite(s): none

Note(s): There will be a weekly screening with this seminar.

Equivalent Course(s): CMLT 67814, NEHC 40711, CDIN 67814

CMST 67820. The Image in the Age of Artificial Intelligence. 100 Units.

This course will examine closely the recent dramatic advantages in the fields of image analysis and generation in a broad range of contexts: from the lab to their everyday use in social media and government surveillance. Students will be given the opportunity to sharpen their understanding of the possibilities and limits of machine learning by testing contemporary algorithms against datasets of their own design. This course seeks to close the critical and cultural distance between industrial advances in image understanding, the scientific discourses behind this field, and conceptions and uses of the image traditionally available to the humanities.

Instructor(s): M. Downie Terms Offered: Winter

CMST 67827. Politics of Media: From the Culture Industry to Google Brain. 100 Units.

Media theory frequently focuses on issues of technology as opposed to, or at the cost of, politics and culture. This course reorients attention to the intersection of media and cultural theory. We begin by reviewing key media theories from the Frankfurt School and the Birmingham School. Following a historical introduction, we explore the contemporary field of cultural media theory as it has unfolded in both the humanities and the social sciences. Students will think through how the sites of race, class, gender, and sexuality might frame and always already influence the ways that we think of media - from the broadcast media of Adorno and Horkheimer's culture industry that included radio, film, and television to contemporary pointcasting that is made up of digital and networked technologies. Alongside readings in an expanded media theory, we will engage artistic and cultural works, including literature, films, television serials, smart phone apps, video games, social media, and algorithms. We also explore methodological differences in media studies between the humanities and the social sciences.

Instructor(s): Patrick Jagoda & Kristen Schilt Terms Offered: Winter

Prerequisite(s): Before enrolling, MA students should email Professors Jagoda or Schilt on what you bring and hope to get out of the seminar

Equivalent Course(s): SOCI 50119, CDIN 45327, GNSE 45327, ENGL 45327

CMST 67922. Data Driven Dystopias. 100 Units.

This course will look at our current relationship with technologies of mass data collection from both the inside and the outside. From the inside: students will be given the opportunity to sharpen their understanding of the possibilities and limits of surveillance by testing contemporary algorithms against datasets of their own design and curation. From the outside: we'll ask how cultural frameworks have driven these technological and social shifts, conditioned our responses to them, or directed us away from their inner mechanisms. In doing so, this experimental course seeks to close the critical and cultural distance between technical, industrial and commercial advances in artificial intelligence, the scientific writings behind this field, and conceptions and uses of data traditionally available to the arts and humanities.

Instructor(s): M.Downie Terms Offered: Autumn

Note(s): Undergraduate students may enroll with permission of instructor.

CMST 68008. Senses and Technology. 100 Units.

This seminar examines the fraught relationship between the human sensorium, and its mediations through what we might call "sense technologies," such as photography, phonography, moving images, radio, computers, telephones and virtual reality. Understanding aesthetic practices as concretizations of sense experience or as formal realizations of experience has a long and storied history as does modeling devices on suppositions about how we see, hear, touch, etc. The contradictions that inevitably arise between practice and theory are one of the motors or both formal and technological change, and the dialectic between how we understand sensory experience in general and how it manifests itself in various institutional settings (the laboratory, the courts, the film industry, video gaming, etc.) will be a touchstone for the class. We will examine both theoretical and historical approaches to understanding various sense/technology relationships since the eighteenth century.

Instructor(s): J. Lastra Terms Offered: Winter

CMST 68400. Style and Performance from Stage to Screen. 100 Units.

Actor is the oldest profession among arts. Cinema is the youngest art there is. What happens with faces, gestures, monologues, and voices; ancient skills like dance or mime; grand histrionics etc. when arts of performance hit the medium of screen? This course will focus on the history of acting styles in silent films, mapping "national" styles of acting that emerged during the 1910s (American, Danish, Italian, Russian) and various "acting schools" that proliferated during the 1920s ("Expressionist acting," "Kuleshov's Workshop," et al.). We will discuss film acting in the context of various systems of stage acting (Delsarte, Stanislavsky, Meyerhold) and the visual arts.

Equivalent Course(s): ARTH 48905

CMST 69002. Cinema and Labor. 100 Units.**CMST 69900. Pedagogy: The Way We Teach Film. 100 Units.**

This course, spread across the year, is an introduction to pedagogical methods in the field of Cinema and Media Studies. It is intended for - and open only to - CMS PhD Students in second and third year.

Instructor(s): A. Field Terms Offered: Autumn Spring Winter. A full year course, with enrollment only occurring in Autumn.

Prerequisite(s): CMST 69900 is open only to CMS PhD students; requires department consent.

Note(s): This course meets through the full academic year.

CMST 69901. The Films of Ozu Yasujiro. 100 Units.

This course explores Ozu Yasujiro's works from both national and transnational perspectives. Through an intense examination of Ozu's robust film making career, from the student comedies of the late 1920s to the family drama (in Agfacolor) of the early 1960s, we will locate Ozu's works at a dialogic focal point of Japanese, East Asian, American, and European cinema.

CMST 70000. Advanced Study: Cinema & Media Studies. 300.00 Units.

Advanced Study: Cinema & Media Studies



DEPARTMENT OF CLASSICS

Chair

- Clifford Ando

Professors

- Clifford Ando
- Elizabeth Asmis
- Shadi Bartsch-Zimmer
- Alain Bresson
- Christopher A. Faraone
- Jonathan M. Hall
- Michèle Lowrie
- Mark Payne
- Peter White

Associate Professors

- Michael I. Allen
- Helma J. Dik
- David G. Martinez
- Sarah Nooter
- Sofia Torallas-Tovar
- David L. Wray

Assistant Professors

- Emily Austin
- Catherine Kearns

Emeritus Faculty

- Walter R. Johnson
- James M. Redfield
- D. Nicholas Rudall

Affiliated Faculty

- Claudia Brittenham, Art History
- Agnes Callard, Philosophy
- Patrick (Patch) Crowley, Art History
- Michael Dietler, Anthropology
- Jas' Elsner, Divinity School
- Elizabeth Gebhard, Director of Excavations, Isthmia
- C. Stephen Jaeger, Germanic and Medieval Studies, U of IL at Urbana-Champaign
- Janet Johnson, Near Eastern Languages and Civilizations
- Walter Kaegi, History, Emeritus
- Demetra Kasimis, Political Sciences
- Matthew Landauer, Political Sciences
- Gabriel Richardson Lear, Philosophy
- Bruce Lincoln, Divinity School
- Boris Maslov, Comparative Literature
- Glenn Most, Committee on Social Thought
- Brian Muhs, Near Eastern Languages and Civilizations
- Richard Neer, Art History
- Martha Nussbaum, Philosophy and Law
- Wendy Olmsted, Humanities
- Ada Palmer, History
- Richard Payne, Near Eastern Languages and Civilizations

- Dennis Pardee, Near Eastern Languages and Civilizations
- James Redfield, Committee on Social Thought, Emeritus
- Kent Rigsby, Emeritus, Duke University
- Robert Ritner, Near Eastern Languages and Civilization
- Martha Roth, Near Eastern Languages and Civilizations
- David Schloen, Near Eastern Languages and Civilizations
- Laura Slatkin, Committee on Social Thought
- Jonathan Z. Smith, Humanities
- Jeffrey Stackert, Divinity School
- Justin Steinberg (<http://tll.uchicago.edu/faculty/steinberg>), Romance Languages and Literatures
- Matthew Stolper, Near Eastern Languages and Civilizations, Emeritus
- Christopher Woods, Near Eastern Languages and Civilization
- Theo van den Hout, Near Eastern Languages and Civilizations
- John Z. Wee, Near Eastern Languages and Civilizations

The **Department of Classics** offers advanced study in the civilizations of the ancient Mediterranean, including literature and literary theory, history, philosophy, religion, science, art, and archaeology. The programs of the department lead to the Ph.D. degree and seek to prepare students for careers in teaching and research. They allow students to explore areas with which they are unfamiliar, as well as to strengthen their knowledge in those in which they have already developed a special interest.

The Classics faculty consists of active scholars, expert in one or more areas of classical studies. Apart from their influence through books and articles, the faculty has long been identified with the publication of *Classical Philology*, one of the leading journals devoted to classical antiquity. The diverse graduate student body at the University include students in a number of programs outside the Department of Classics who are also engaged in the study of the ancient world. The Oriental Institute, the Divinity School, the Committee on Social Thought, and the Departments of Art History, History, Linguistics, and Near Eastern Languages & Civilizations all have programs that focus on aspects of the classical period. The workshops supported by the Council for Advanced Studies, where graduate students, faculty, and visiting scholars present work in progress, are a further means of scholarly collaboration and training. The department currently sponsors workshops entitled Ancient Societies, Rhetoric and Poetics, and Ancient Philosophy, which involve participants from other areas as well.

RESEARCH AND LIBRARY RESOURCES

The University of Chicago Library owns over 11 million volumes in print and electronic form. Classics has been one of the Library's strongest collections since its founding in 1891, when the University purchased the entire stock of an antiquarian bookstore in Berlin that specialized in classical philology, archaeology, and religion. Apart from current monographs, the library receives more than seven hundred serials devoted to ancient Greece and Rome and subscribes to the full range of electronic databases useful to ancient studies. Major editions of classical texts printed from the Renaissance through the eighteenth century are available in the Special Collections Research Center, which also houses collections of Greek and Latin manuscripts.

FELLOWSHIPS

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component. Graduate students may also apply for fellowships which aid students during the writing of Ph.D. dissertations and for travel grants that support visits to libraries, collections, and archaeological research sites in Europe and the Near East.

TEACHING OPPORTUNITIES

At the University of Chicago, graduate students have a variety of teaching opportunities including as independent instructors. The Chicago Center for Teaching conducts a series of workshops and forums designed for graduate students to build skills in lecturing, leading discussions, and focusing writing assignments. The Writing Program prepares graduate students to teach writing to undergraduate students.

Teaching opportunities lie in four areas. The first is in classics, where students who have completed the first two years of coursework may apply to serve as course assistants alongside regular faculty in the beginning Greek and Latin and ancient civilization sequences. Experienced course assistants may apply to teach independently in the first or second year language courses. Graduate students also have a broad role in the summer Greek and Latin Institute, and in the Graham School of General Studies, for which they are encouraged to offer courses of their own design (some recent courses have been devoted to the *Iliad*, *the Odyssey*, and *the Aeneid*).

The second area of teaching is through the Writing Program. The program offers three kinds of renewable teaching positions: Lectors in Academic and Professional Writing, Writing Interns in the Humanities Common

Core, and Writing Tutors for the College Tutoring Program. All Writing Program instructors take a quarter-long course in the pedagogy of writing before they start teaching, and during their first quarter of teaching, they work closely with experienced writing program personnel as writing interns in the humanities and social sciences core courses of the College.

A third area of teaching is serving as the graduate assistant for the College's ten-week Study Abroad program in Athens, which is regularly staffed by faculty from the Classics Department. The graduate assistant serves as both a course assistant and a resident assistant and as an instructor for a course entitled Readings in Attic Greek.

Finally, at the most advanced level, graduate students are eligible to teach sections of the humanities core sequence.

PROGRAMS OF STUDY

The department offers Ph.D. degrees in Classical Languages and Literatures, the Ancient Mediterranean World, Ancient Greek and Roman Philosophy, and Transformations of the Classical Tradition, as well as a joint Ph.D. in Social Thought and Classics.

PH.D. PROGRAM IN CLASSICAL LANGUAGES AND LITERATURES

The success of any graduate program depends upon the quality and commitment of its students and faculty. The Classics Department of the University of Chicago consists of persons of diverse backgrounds and interests, active scholars who are expert in one or more areas of classical studies. Beyond the influence which members of the faculty have had individually through books and articles, the Department has also long been identified with the publication of *Classical Philology* (<http://www.journals.uchicago.edu/toc/cp/current>), one of the world's leading journals devoted to classical antiquity.

The diversity of faculty interests is matched by the diversity among the students in the graduate programs at the University of Chicago. Students in the Department of Classics represent only one of several groups engaged in the study of the ancient world. The Oriental Institute (<http://www-oi.uchicago.edu/OI/default.html>) and Divinity School (<http://divinity.uchicago.edu/index.shtml>), the Committees on Medieval Studies (<http://catalogs.uchicago.edu/divisions/medieval.html>), and Social Thought (<http://catalogs.uchicago.edu/divisions/socthou.html>), and the Departments of Art (<http://arthistory.uchicago.edu>), History (<http://history.uchicago.edu>), and Philosophy (<http://philosophy.uchicago.edu>) all have programs which focus on different aspects of the classical period, and which attract students with correspondingly varied interests. Course requirements for the graduate program in Classics are sufficiently flexible that students can take advantage of the numerous opportunities offered by these other programs.

Consequently, Classics students are able to encounter a multiplicity of approaches to classical texts and modern scholarship. In addition to learning basic techniques of textual, historical, and literary criticism, they are encouraged to explore new approaches to classical literature, history, philosophy, religion, art, and archaeology. They may test their explorations by participating in interdisciplinary workshops where both students and faculty present and discuss current research. The Classics Department sponsors three workshops, the Ancient Societies Workshop (<http://cas.uchicago.edu/workshops/ancientsocieties>), the Rhetoric and Poetics Workshop (<http://lucian.uchicago.edu/workshops/rhetpoet>), and the Ancient Philosophy Workshop (<http://lucian.uchicago.edu/workshops/agarp>), all of which meet biweekly, and is affiliated with the Late Antique and Byzantium Workshop (<http://cas.uchicago.edu/workshops/lantbyz>) and the Medieval Studies Workshop. Computer facilities permit students to conduct precise analyses of texts and to communicate with scholars worldwide who share their interests. Students interested in ancient theater can acquire first-hand experience in producing and acting in classical plays as part of the University Theater Program. Archaeological field experience is available for those who are interested in the material basis of classical antiquity.

PH.D. PROGRAM IN THE ANCIENT MEDITERRANEAN WORLD

The Graduate Program in the Ancient Mediterranean World is designed to allow students to custom build an interdisciplinary course of study that satisfies their own intellectual interests while remaining true to the rigorous and thorough training that is expected of University of Chicago graduates.

The first two years of study towards the Ph.D. are spent engaged in coursework. In consultation with the PAMW Graduate Advisor, students will devise a program of courses that range across the Mediterranean and/or Near Eastern worlds. Students are expected to familiarize themselves with various aspects of the ancient world (literature, philosophy, history, art and archaeology, and religion) and are encouraged to explore various methodological and theoretical approaches derived from other disciplines, especially the social sciences. The centerpiece of the program in these first two years is the two-quarter Ancient Mediterranean Seminar, co-taught by two PAMW Faculty members, which is designed to introduce students to issues of historical method while studying a topic that changes annually.

At the end of the second year of study, students choose two Faculty members who will advise them as they prepare for the two written Field Examinations, which are sat in the course of the third year. The Field Examinations are intended to test requisite research skills in connection with specialized topics. Students are also

expected to demonstrate competence in two modern languages (normally French and German) and two ancient languages before the end of their third year.

Once the Field Examinations are completed, the student assembles a Dissertation Committee of three faculty members. The Committee will assist the student in preparing a Dissertation Proposal, which must be presented before the end of the fourth year. Students are also required to enroll in the two-quarter dissertation proposal workshop. The final Dissertation is defended before members of the Department and interested members of other Departments. The curriculum is designed so that all requirements can be fulfilled within six years.

PH.D. PROGRAM IN ANCIENT GREEK AND ROMAN PHILOSOPHY

The study of ancient Greek and Roman philosophy is inherently interdisciplinary. Scholars must be able to situate philosophical texts in their broader cultural context. They must also be alive to the way a given text engages with and contributes to its philosophical tradition. Finally, they must be able to communicate effectively with scholars trained in either classics or philosophy. Thus, students who plan to specialize in ancient philosophy ought to receive an interdisciplinary training. Since both classics and philosophy have exacting and distinct standards of disciplinary training, we decided to establish a program in which students will enroll in either the doctoral program in Classics or in the doctoral program in Philosophy but will be required to take certain courses in both departments. The program is a joint program, in the sense that the faculty of both departments are committed to training students in the other department in the ways specified below, and in that the students will develop a working relationship with each other, both through participation in seminars and in the Ancient Greek and Roman Philosophy Workshop (<https://voices.uchicago.edu/agarp>).

Students enrolled in the Ph.D. degree in the Program in Ancient Greek and Roman Philosophy in the Classics Department are required to pass a total of 18 courses, of which 16 must be passed in the first and second years. At the end of the second year, students choose two faculty members to advise them on the oral examination, which must be taken by the end of the Winter Quarter of the third year of the Program. Once the examination is completed, students assemble a dissertation committee of three members. The committee will assist the student in preparing a dissertation proposal, which must be presented to the Classics Department faculty by the end of the Autumn Quarter of the fourth year. Students are expected to attend the Ancient Greek and Roman Philosophy Workshop throughout their enrollment in the program.

PH.D. PROGRAM IN TRANSFORMATIONS OF THE CLASSICAL TRADITION

The PhD program in Transformations of the Classical Tradition enables students to approach the long history of classical thought and literature by following a course of study tailored to their particular interests.

The first two years of study towards the Ph.D. are spent on coursework. In consultation with the Director of Graduate Studies and the TCLT program Chair, students will devise a program of courses that focus on, but are not limited to, key texts in literature, philosophy, historiography, and political theory in either Greek or Latin, and the reception, development, and transformation of these texts in one of the modern languages. During their first two years, students must also satisfy the requirements for their second ancient and modern language.

Students entering the program are introduced to the methodological opportunities of studying the long history of the classical tradition in a two quarter introductory seminar, co-taught by two TCLT faculty members, one of whom will be a member of the Classics faculty, and the other from one of our partner disciplines: Art History, the Committee on Social Thought, Comparative Literature, Germanic Studies, History, Philosophy, Political Science, Romance Languages & Literatures, and the Divinity School. In the third year, students progress to an oral examination in their chosen field of study, followed by the dissertation proposal workshop, and the submission of the dissertation proposal. The fourth and fifth years are devoted to dissertation writing and the curriculum is designed so that all requirements can be fulfilled within six years.

THE JOINT PH.D. PROGRAM IN SOCIAL THOUGHT AND CLASSICS

The **Joint Ph.D. Program in Social Thought and Classics** is intended for students whose study of a particular issue or text from the ancient Greek and Roman world requires a broadly inter-disciplinary approach alongside a professional mastery of philological skills.

Those interested in pursuing this joint degree program must first be admitted in *EITHER* the Committee on Social Thought (<http://socialthought.uchicago.edu>) *OR* the Department of Classics (<http://classics.uchicago.edu/home>) and must complete at minimum the two quarter language survey (Greek or Latin), offered by the Department of Classics, with an average grade of B or higher. A petition for admissions to the joint degree shall be made to the second department and provided that the standards of admission to that department are met, students will be admitted to joint degree status. They will not, however, be considered to have transferred into the second department and their original department will remain their sole department for purposes of administrative purposes, such as registration and financial aid (including dissertation fellowships). They will be assigned two faculty advisors, one whose primary appointment is in Social Thought, one whose primary appointment is in Classics. Students initially admitted to Classics will be expected to complete all requirements for the A.M. in Classical Languages and Literatures in their first year. Students initially admitted to Social Thought may complete the remaining requirements of the A.M. in Classical Languages and Literatures during the second year of study and the A.M. will be awarded at that time. Although students will

fulfill the requirements for the A.M. in both Social Thought and Classical Languages and Literatures (<http://classics.uchicago.edu/graduate/classical-language-literature>), they will receive only one Master's degree from the University.

Students admitted to the joint degree program must satisfy both all the standard requirements for the Ph.D. in Classical Languages and Literatures and for the Ph.D. in Social Thought. The Social Thought language requirement of a high-level pass in a foreign language exam is met by the language requirements of the Classics program. The teaching requirements to be fulfilled are those of the Ph.D. in Classical Languages and Literatures. The dissertation proposal will have to be approved by both departments; the dissertation committee will normally include three professors, at least one of whom will come from each department. The committee chair should be a member either of Classics or the Committee on Social Thought, according to the enrollment of the student.

In order to ensure that the combination is genuine and rigorous, those students with joint degree status will be required to offer at least a majority of non-Classical texts on the Social Thought Fundamentals Examination (<http://socialthought.uchicago.edu/page/fundamentals-examination>). Students with joint degree status will be encouraged, in consultation with their advisors, to take courses on non-Classical subjects that will help prepare them for this examination.

Because of the difference in the way and extent to which the Classics and the Social Thought Ph.D. programs are regulated, the mode of access to joint degree status will vary, depending upon whether candidates enter into it from the one department or the other.

THE DEGREE OF MASTER OF ARTS

Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study in a number of areas of interest to students. MAPH students take courses with students in the Ph.D. programs. Further details about the MAPH program are available at <http://maph.uchicago.edu/>

APPLICATION

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions>.

Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu/>, or call them at (773) 702-7752.

COURSES

The two quarter surveys of Greek and Latin literature, and Greek and Latin prose composition, are offered in alternate years. The courses listed below are offered regularly, normally on a three-year rotating basis. In addition, new courses are frequently introduced, especially seminars and classics courses, and these cannot be predicted very far in advance. In recent years, courses included seminars on Early Rome, Tragedy and the Tragic, A History of Rhetoric, Greek Tragedy in Africa, Juvenal, The Ancient Economy, Oral Poetries, The Poetry of Death, Security in Latin Literature, Stoics and Epicureans, and Holderlin and the Greeks.

GREEK

Iambic and Elegiac Poetry.

Greek Philosophy.

Greek Tragedy.

Lyric and Epinician Poetry.

Greek Epic.

Greek Oratory.

Hellenistic and Imperial literature.

Greek Comedy.

Greek Historians.

LATIN

Roman Elegy.
 Roman Novel.
 Virgil.
 Post-Virgillian Epic
 Roman Historians.
 Roman Comedy.
 Lucretius.
 Roman Satire.
 Roman Oratory.

CLASSICS COURSES

CLAS 30400. Who Were the Greeks? 100 Units.

If the current resurgence of interest in ethnic studies is a direct reflection of a contemporary upsurge in ethnic conflict throughout the world, it remains the case that notions of peoplehood and belonging have been of periodic importance throughout history. This course will study the various expressions of Greek identity within shifting political, social, and cultural contexts from prehistory to the present day, though with a strong emphasis on classical antiquity. Particular attention will be given to theoretical issues such as anthropological definitions of ethnicity, the difference between ethnic and cultural identities, methods for studying ethnicity in historical societies, and the intersection of ethnicity with politics. Equivalent Course(s): CLAS 30400, CLCV 20400, HIST 30701, ANCM 30400

Instructor(s): J. Hall Terms Offered: Autumn

Equivalent Course(s): HIST 30701, ANCM 30400, HIST 20701, CLCV 20400

CLAS 30404. Troy and Its Legacy. 100 Units.

This course will explore the Trojan War through the archaeology, art, and mythology of the Greeks and Romans, as well as through the popular imaginings of it in later cultures. The first half will focus on the actual events of the "Trojan War" at the end of the second millennium BCE. We will study the site of Troy, the cities of the opposing Greeks, and the evidence for contact, cooperation, and conflict between the Greeks and Trojans. Students will be introduced to the history of archaeology and the development of archaeological fieldwork. The second half will trace how the narrative and mythology of Homer's Iliad and the Trojan War were adapted and used by later civilizations, from classical Greece to twenty-first-century America, to justify their rises to political and cultural hegemony in the Mediterranean and the West, respectively.

Instructor(s): M. Andrews Terms Offered: Spring

Equivalent Course(s): ANTH 36120, ANTH 26120, CLCV 20404, HIST 20404, HIST 30404

CLAS 30419. Empire in Ancient World. 100 Units.

Empire was the dominant form of regional state in the ancient Mediterranean. We will investigate the nature of imperial government, strategies of administration, and relations between metropole and regional powers in Persia, Athens, the Seleucid empire, and Rome.

Instructor(s): C. Ando Terms Offered: Autumn

Equivalent Course(s): HIST 40400, ANCM 40419, CLCV 20419

CLAS 31019. Ancient Stones in Modern Hands. 100 Units.

Objects from classical antiquity that have survived into the modern era have enticed, inspired, and haunted those who encountered or possessed them. Collectors, in turn, have charged ancient objects with emotional, spiritual, and temporal power, enrolling them in all aspects of their lives, from questions of politics and religion to those of race and sexuality. This course explores intimate histories of private ownership of antiquities as they appear within literature, visual art, theater, aesthetics, and collecting practices. Focusing on the sensorial, material, and affective dimensions of collecting, we will survey histories of modern classicism that span from the eighteenth century to the present, from the Mediterranean to the Pacific. Historical sources will include the writings of Johann Gottfried Herder, Johann Joachim Winckelmann, Emma Hamilton, Vernon Lee, and Sigmund Freud, among others; secondary source scholarship will draw from the fields of gender studies, the history of race, art history, and the history of emotions. We will supplement our readings with occasional museum visits and film screenings. Assignments: Active participation in class, one secondary text analysis, one analysis of a controversy, and one proposal for a monument, museum, or school curriculum.

Instructor(s): S. Estrin & A. Goff Terms Offered: Winter

Prerequisite(s): Instructor consent required. Email both instructors describing your interest in the course, how it fits into your broader studies, and any relevant background (agoff@uchicago.edu & sestrin@uchicago.edu). This is a traveling seminar that includes a 4-day trip to visit California museum collections.

Note(s): Making History courses forgo traditional paper assignments for innovative projects that develop new skills with professional applications in the working world. A team-taught and interdisciplinary course; we welcome students from all backgrounds, with no previous experience in ancient art or modern history required.

Equivalent Course(s): HIST 29422, HIST 39422, ARTH 20304, ARTH 30304, CLCV 21019

CLAS 31515. Colloquium: Late Antique Mediterranean I. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE.

Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. Will continue in winter quarter.

Equivalent Course(s): HIST 41005, NEHC 41005, ANCM 31515

CLAS 31516. Colloquium: Late Antique Mediterranean II. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE.

Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. In the winter quarter, we focus on research topics for the colloquium paper.

Equivalent Course(s): HIST 41006, NEHC 41006, ANCM 31516

CLAS 31617. The Return of Homer: The Iliad and Odyssey in Contemporary English Language Fiction and Poetry. 100 Units.

The course will examine the extraordinary flowering of English language novels and poems based on the Homeric epics in the past quarter century. We will ask how different contemporary poets and prose writers have interpreted Homer's works and try to understand the appeal of this ancient poetry for modern authors, readers, and publishers. The reading will include such works as Margaret Atwood, *The Penelopiad*; Byrne Fone, *War Stories: A Novel of the Trojan War*; Christopher Logue, *An Account of Homer's Iliad*; David Malouf, *Ransom*; Zachary Mason, *The Lost Books of the Odyssey*; Madeline Miller, *The Song of Achilles*; Alice Oswald, *Memorial: A Version of Homer's Iliad*; Lisa Peterson, *An Iliad*; Kate Quinn, et al., *A Song of War*; and Derek Walcott, *Omeros*. English translations of such foreign-language works as Alessandro Baricco's *An Iliad* and Ismail Kadare's *The Fijile on H*. may also be considered if students wish.

Equivalent Course(s): SETH 31614

CLAS 31718. Socrates, Plato and Aristotle on Courage. 100 Units.

What is courage? Is it: doing what you should do, even when you are afraid? Can you be courageous without being afraid? Can you be courageous and know that you are doing the right thing? Can you be courageous if you are not in fact doing the right thing? Can you have precisely the correct amount of fear and still fail to be courageous? Could you be courageous if you weren't afraid to die? Courage is, arguably, the queen of the virtues. In this class, we will use some Socratic dialogues (*Laches*, *Protagoras*, *Republic*, *Phaedo*) and some Aristotelian treatises (*Nicomachean Ethics*, *Eudemian Ethics*) as partners in inquiry into the answers to the questions listed above. (A)

Instructor(s): A. Callard Terms Offered: Autumn

Prerequisite(s): Students who are not enrolled by the start of term but wish to enroll must (a) email the instructor before the course begins and (b) attend the first class.

Equivalent Course(s): PHIL 21717, PHIL 31717, CLCV 21718

CLAS 32400. Greek Comedy: Aristophanes. 100 Units.

We will read in Greek Menander's *Dyskolos*, with an eye to understanding "New Comedy" and its robust afterlife in Renaissance Europe and modern sitcoms. We will also devote some time to reading and assessing fragments from Menander's contemporaries. Coursework will include translation as well as secondary readings. Terms Offered: Will be offered 2020-21

Equivalent Course(s): GREK 22400, GREK 32400, HIST 20403, HIST 30403

CLAS 32514. Markets and Moral Economies. 100 Units.

This course examines the ways in which economic behavior in the Roman Empire was informed by, and itself came to inform, social and religious mores and practices. We will explore the interrelationship between culture and economy from the accession of Augustus to late antiquity and the conversion of the empire to Christianity. Particular attention will be given to Roman attitudes towards labor, the ethical issues surrounding buying and selling, and alternative allocative mechanisms to the market. Of constant concern will be the tension between the perspectives and prejudices of elites, which stand behind so much surviving literary evidence, and the realities of everyday commerce and economic life as they can be glimpsed in the archaeological and epigraphic record.

Instructor(s): L. Gardner Terms Offered: Autumn

Equivalent Course(s): CLCV 22514

CLAS 32515. Athenian Democracy and its Critics. 100 Units.

No course description available.

Instructor(s): M. Landauer Terms Offered: Spring

Equivalent Course(s): PLSC 42501

CLAS 32914. The Italian Renaissance. 100 Units.

Florence, Rome, and the Italian city-states in the age of plagues and cathedrals, Dante and Machiavelli, Medici and Borgia (1250-1600), with a focus on literature and primary sources, the recovery of lost texts and technologies of the ancient world, and the role of the Church in Renaissance culture and politics. Humanism, patronage, translation, cultural immersion, dynastic and papal politics, corruption, assassination, art, music, magic, censorship, religion, education, science, heresy, and the roots of the Reformation. Assignments include creative writing, reproducing historical artifacts, and a live reenactment of a papal election. First-year students and non-history majors welcome.

Instructor(s): A. Palmer Terms Offered: Spring

Equivalent Course(s): HIST 32900, ITAL 32914, CLCV 22914, MDVL 22900, KNOW 31405, HCHR 32900, KNOW 21405, RLST 22900, HIST 22900, ITAL 22914

CLAS 33119. Uncanny Resemblances. 100 Units.

This course examines one of the most captivating bodies of portrait art in the Western tradition. For well over a century, the study of Roman portraiture, an essentially German subfield of classical archaeology, has largely confined itself to forensic problems of dating and identification. More recent work has focused on social and political topics ranging from site-specific issues of context and display, patronage and power, gender, and the ideological stakes of recarving and reuse. Additionally, we will consider the historiographical and media-archaeological contexts that have profoundly shaped and framed our understanding of these objects, both in antiquity and modernity: e.g., the production (and reproduction) of wax and plaster death masks in Roman funerary custom; ancient theories in the domain of optics that were used to explain the phenomenon of portraits whose eyes appear to follow a beholder in space; how the stylistic category of "veristic" portraiture in the Roman Republic has its origins not in antiquity (despite the Latin etymology), but rather in the painting and photography of the Neue Sachlichkeit in Weimar Germany; and how the contemporary use of digital craniofacial anthropometry to study the recarving and reuse of Roman portraits relates to Sir Francis Galton's criminological apparatus for creating composite photographic images using portraits from ancient coins as early as 1885.

Instructor(s): P. Crowley Terms Offered: Spring

Equivalent Course(s): ARTH 34106, CLCV 23119, KNOW 34106, ARTH 24106, KNOW 24106

CLAS 33608. Aristophanes's Athens. 100 Units.

The comedies of Aristophanes are as uproarious, biting, and ribald today as they were more than 2,400 years ago. But they also offer a unique window onto the societal norms, expectations, and concerns as well as the more mundane experiences of Athenians in the fifth century BCE. This course will examine closely all eleven of Aristophanes's extant plays (in translation) in order to address topics such as the performative, ritual, and political contexts of Attic comedy, the constituency of audiences, the relationship of comedy to satire, the use of dramatic stereotypes, freedom of speech, and the limits of dissent. Please note that this course is rated Mature for adult themes and language.

Instructor(s): J. Hall Terms Offered: Winter

Equivalent Course(s): FNDL 23608, CLCV 23608, HIST 20803, ANCM 33900, HIST 30803, LLSO 20803

CLAS 33616. Homer's Odyssey: Estrangement and Homecoming" 100 Units.

One of the two foundational epics of so-called Western Culture, the *Odyssey* features a wily hero whose journeys are extraordinary and whose longing for home is unbounded. The *Odyssey* offers a complex meditation on brotherhood, bestiality, sexuality, kinship, and power; it is the great epic of cross-cultural encounter, in all its seductive and violent aspects, as well as the great poem of marriage. An adventure in *nostos* (homecoming), the *Odyssey* shows us the pleasures and dangers of voyaging among strangers. Constantly exploring the boundaries between the civilized and the savage, the poem offers as well a political critique of many ancient institutions, not least the family patriarchy, hospitality customs, and the band-of-brothers so central to epic ideology. And as a masterwork of narrative art, the *Odyssey* asks us to consider the relation of fiction to "truth." We will explore these and other matters in the *Odyssey*, and may make a concluding foray into contemporary re-workings of *Odyssean* themes and characters.

Equivalent Course(s): FNDL 21223, SCTH 31223

CLAS 33815. Plato's Legacies. 100 Units.

Some of the most significant efforts to question political theory's core concepts, unsettle its approaches, and expose its dangerous ideals have depended on major re-interpretations of Plato's thought. This course investigates the broad critical impulse to treat Plato as the originator of political positions and interpretive assumptions that late modernity frequently seeks to critique and less often to celebrate. We consider the charges of essentialism, authoritarianism, and foundationalism, among others, and ask to what (if any) extent considerations of the texts' historical contexts and dramaturgical conditions have factored into these assessments. Readings will include works by Popper, Strauss, Arendt, Derrida, Castoriadis, Wolin, Irigaray, Cavarero, Butler, and Rancière alongside Plato's dialogues. Students are expected to be familiar with Plato's thought upon enrolling.

Instructor(s): D. Kasimis Terms Offered: Autumn

Equivalent Course(s): PLSC 43801

CLAS 34019. Death and Disease in the Ancient World. 100 Units.

This course examines aspects of death and disease in the Greco-Roman world through a wide range of evidence and historical approaches. We will focus on the major problems of individual and public health in these cultures, how they understood health philosophically, scientifically, and culturally and what measures they took to ensure it (or not). Topics will range from bacterial infections to environmental pollutants to personal hygiene. We will also examine how many aspects of ancient medicine were practiced and theorized. Later in the quarter we will consider various aspects of death: logistical and practical, cultural and religious.

Instructor(s): M. Andrews Terms Offered: Winter

Equivalent Course(s): CHSS 30806, HIST 20806, HIPS 20806, CLCV 24019, HIST 30806

CLAS 34319. The Idea of Freedom in Antiquity. 100 Units.

Freedom may be the greatest of American values. But it also has a long history, a dizzying variety of meanings, and a huge literature. This course will be an introduction to critical thinking on freedom (primarily political freedom) with an emphasis on Greco-Roman texts. The first half of the class will focus on Greek authors, including Herodotus, Euripides, and Aristotle. The second half will focus on Roman authors, from Cicero to Livy to Tacitus. The ancient texts will be supplemented by modern literature on freedom, such as John Stuart Mill and Isaiah Berlin.

Instructor(s): A. Horne Terms Offered: Autumn

Equivalent Course(s): HIST 30507, CLCV 24319, HIST 20507, LLSO 24319

CLAS 34519. Dreams in the Ancient World. 100 Units.

Dreams belong to the universals of human existence as human beings have always dreamt and will continue to dream across time and cultures. The questions where do dreams come from and how to unravel a dream have always preoccupied the human mind. In this course we will focus on dreams in the Greco-Roman and Greco-Egyptian cultural environments. We will cover dreams from three complementary perspectives: dreams as experience, dream interpretation and dream theory. The reading materials will include: (a) a selection of dream narratives from different sources, literary texts as well as documentary accounts of dreams; (b) texts which document the forms and contexts of dream interpretation in the Greco-Roman and Greco-Egyptian cultures and (c) texts which represent attempts to approach dreams from a more general perspective by among others explaining their genesis and defining dream-types.

Instructor(s): S. Torallas. A. Maravela Terms Offered: Autumn

Equivalent Course(s): ANCM 44519, RLST 24503, NEHC 30613, NEHC 20613, CLCV 24519

CLAS 34719. Same-Sex Sexuality: History, Philosophy, and Law. 100 Units.

This new course examines two important historical periods in Western thought during which same-sex conduct and attraction were extensively debated, both politically and philosophically: ancient Greece and Rome, and Victorian and post-Victorian Britain. We will examine the evidence for ancient Greek and Roman attitudes and practices and the normative arguments of the philosophers, especially Plato and the Greek Stoics. Then we leap forward to Victorian Britain, where a newly honest reading of the Greek evidence provided gay men with a rallying point against Christian laws (female same-sex acts were never illegal in Britain), and philosopher Jeremy Bentham provided eloquent arguments for the decriminalization of same-sex acts (fully published only in 2013). We then pause to study a literature that questions whether sexual orientation is a timeless category or a cultural artifact, and a related debate about alleged biological accounts of same-sex desire. Then we move on to the Wolfenden Commission Report of 1957 that recommended the decriminalization of same-sex acts in Britain (with the case of Alan Turing as a central example of what troubled the reformers), along with the related legal-philosophical debate between H. L. A. Hart and Lord Devlin debate (and its roots in the earlier debate about liberty between J. S. Mill and Fitzjames Stephen).

Instructor(s): M. Nussbaum Terms Offered: Spring

Prerequisite(s): Undergraduates may enroll only with the permission of the instructor. Graduate students (Ph.D. and MA) do not need permission. Assessment is by an 8 hour take home final exam, although Ph.D. students and law students may select a paper option.

Equivalent Course(s): PHIL 24799, CLCV 24719, PHIL 34799, RETH 34799, PLSC 34799, PLSC 24799, GNSE 24799, GNSE 34799

CLAS 35014. Winckelmann: Enlightenment Art Historian and Philosopher. 100 Units.

We approach the first great modern art historian through reading his classic early and mature writings and through the art and criticism of his time (and at the end, our own). Reading-intensive, with a field trip to the Art Institute.

Instructor(s): Andrei Pop Terms Offered: Autumn

Prerequisite(s): German reading competence helpful, but NOT required.

Equivalent Course(s): GRMN 25015, ARTH 25115, KNOW 35000, ARTH 35115, SCTH 35000, GRMN 35015

CLAS 35219. Art of Rhetoric from Aristotle to Cicero. 100 Units.

Rhetoric was the supreme technology of the Greco-Roman world, and the principal focus of formal schooling up to the end of antiquity and beyond. The readings for the course show how the psychology of persuasion was reduced to a system, how the system was adapted to political structures of the very different societies in which it flourished, and how orators put it into practice: Aristotle's Rhetoric, Cicero's On the Orator and Brutus, and selected speeches of Demosthenes, Cicero, and others.

Instructor(s): P. White Terms Offered: Spring

Equivalent Course(s): CLCV 25219, LLSO 25219

CLAS 35319. Gender and Sexuality in Late Antiquity: Precursors and Legacies. 100 Units.

In this course students will trace how gender was theorized and normative behavior was prescribed and enforced in the ancient world. We will begin with materials from the Greco-Roman world, Hebrew Bible, and the Second Temple Period. As the quarter progresses, we will turn our attention to early and late ancient Christian authors, focusing on the way asceticism and emergent ecclesial institutions shaped the lives of women and gender non-conforming individuals. Throughout the course students will learn to navigate the pitfalls and opportunities the study of gender affords for understanding the development of biblical interpretation, the transformation of classical Graeco-Roman culture, and the formation of Christian doctrine. How did Christianity challenge and preserve norms for female behavior? How did Rabbinic and early Christian authors approach questions of sexuality differently? Along the way we will bring 20th-century theorists of sexuality and gender into our conversations to illuminate pre-modern discourses of virginity, sexual experience, and identity. Primarily we will approach texts through a historical lens while paying attention to the theological and ethical issues involved. At the end of the course we will examine the legacy of late ancient debates, tracing how earlier teaching about gender and sexuality co-exists with, challenges, and informs modern secular worldviews.

Instructor(s): Erin Galgay Walsh Terms Offered: Autumn

Prerequisite(s): PQ: No languages are required, but there will be ample opportunity for students with skills in Greek, Latin, Syriac, and Hebrew to use them.

Equivalent Course(s): BIBL 42910, RLST 22910, GNSE 42910, GNSE 22910, CLCV 25319

CLAS 35513. Anagnorisis and the Cognitive Work of Theater. 100 Units.

In the Poetics Aristotle conceives anagnorisis or recognition as one of the three constitutive parts of the dramatic plot and defines it as the "a change from ignorance (agnoia) to knowledge (gnosis)." Implying the rediscovery of something previously known anagnorisis refers to the emplotment and staging of a certain kind of cognitive work characteristic of theater (as a locus of theoria or theory). For recognition is not only required of the dramatis personae on stage but also of the spectators who need to (re)-cognize a character whenever s/he enters. Just as the characters' anagnorisis isn't restricted to the filiation, i.e., identity, of other characters the audience's cognition concerns the understanding the plot as a whole. In short, by focusing on anagnorisis we can gain insight in the specific cognitive work of theater (and drama). Naturally we will begin in antiquity and examine the instantiation of recognition in Homer's Odyssey and several Greek tragedies as well as its first theorization in Aristotle's Poetics. Then we will jump to the modernes, specifically Enlightenment theater's obsession with anagnorisis and the cognitive work it performs, and investigate dramas by Diderot and Lessing. Kleist's dramatic deconstructions of German bourgeois and classical theater test the Enlightenment's claim to reason and reform of human cognition. Our last stop will be Brecht's theater of "Entfremdung" that makes the alienation at the heart of anagnorisis into the centerpiece of his aesthetic and political project. If we have time, we will also take a look at comical recognition as self-reflection of its tragic counterpart. Readings and discussions in English.

Instructor(s): C. Wild Terms Offered: Autumn

CLAS 35808. Roman Law. 100 Units.

The course will treat several problems arising in the historical development of Roman law: the history of procedure; the rise and accommodation of multiple sources of law, including the emperor; the dispersal of the Roman community from the environs of Rome to the wider Mediterranean world; and developments in the law of persons. We will discuss problems like the relationship between religion and law from the archaic city to the Christian empire, and between the law of Rome and the legal systems of its subject communities.

Instructor(s): C. Ando Terms Offered: Spring

Equivalent Course(s): SIGN 26017, HIST 21004, CLCV 25808, HIST 31004, LLSO 21212

CLAS 35818. Stoic Ethics Through Roman Eyes. 100 Units.

The major ideas of the Stoic school about virtue, appropriate action, emotion, and how to live in harmony with the rational structure of the universe are preserved in Greek only in fragmentary texts and incomplete summaries. But the Roman philosophers give us much more, and we will study closely a group of key texts from Cicero and Seneca, including Cicero's *De Finibus* book III, his *Tusculan Disputations* book IV, a group of Seneca's letters, and, finally, a short extract from Cicero's *De Officiis*, to get a sense of Stoic political thought. For fun we will also read a few letters of Cicero's where he makes it clear that he is unable to follow the Stoics in the crises of his own life. We will try to understand why Stoicism had such deep and wide influence at Rome, influencing statesmen, poets, and many others, and becoming so to speak the religion of the Roman world. (A)

Instructor(s): M. Nussbaum Terms Offered: Winter

Prerequisite(s): Ability to read the material in Latin at a sufficiently high level, usually about two-three years at the college level. Assignment will usually be about 8 Oxford Classical Text pages per week, and in-class translation will be the norm.

Equivalent Course(s): PLSC 35818, PLSC 25818, PHIL 25818, RETH 35818, PHIL 35818, CLCV 25818

CLAS 36017. Gods and God in Imperial Asia Minor (1-300 CE) 100 Units.

Roman Asia Minor in the Imperial period provides an extraordinary case of religious plurality and creativity. Pagans, Jews, Christians, even already Christian heretics, interacted in the same space. The frontiers between Jewish and Christian communities were, at least at the beginning, more fluid than was long thought. But even the frontiers between paganism and Judaism or Christianity were certainly not as rigid as was later imagined. This does not mean, however, that there were no tensions between the various groups. This class will examine the various aspects of this religious diversity as well as the social and political factors that may explain the religious equilibrium prevailing at that time in Asia Minor.

Instructor(s): A. Bresson Terms Offered: Winter

Equivalent Course(s): HIST 20308, CLCV 26017, HIST 30308, HREL 36017

CLAS 36419. Magic in the Ancient Mediterranean. 100 Units.

In this course we will mainly focus on the magical rituals (e.g. curses, necromancy, erotic spells, amulets and divination) practiced in the ancient Mediterranean beginning with the Greeks in archaic times and ending with the fall of the Roman Empire, with some discussion of Near Eastern and Egyptian influence at the beginning and Jewish and Christian reception at the end. Course requirements include a midterm and final and the option to write a paper.

Instructor(s): C. Faraone Terms Offered: Spring

Equivalent Course(s): ANCM 46419, CLCV 26419

CLAS 36618. Cities and Urban Space in the Ancient World. 100 Units.

Cities have been features in human landscapes for nearly six thousand years. This course will explore how cities became such a dominant feature of settlement patterns in the ancient Mediterranean and Near East, ca. 4,000 BCE-350 CE. Was there an "Urban Revolution," and how did it start? What various physical forms did cities assume, and why did cities physically differ (or not) from each other? What functions did cities have in different cultures of the past, and what cultural value did "urban" life have? How do past perspectives on cities compare with contemporary ones? Working thematically and using theoretical and comparative approaches, this course will address various aspects of ancient urban space and its occupation, with each topic backed up by in-depth analysis of concrete case studies.

Instructor(s): M. Andrews Terms Offered: Spring

Equivalent Course(s): HIST 30805, ANCM 36618, CLCV 26618, HIST 20805, ENST 20805

CLAS 37009. Theories of Narrative. 100 Units.

Equivalent Course(s): CMLT 38300, REES 33158, CMLT 21300

CLAS 37200. Virgil: The Aeneid in Translation. 100 Units.

Description unavailable.

Equivalent Course(s): CMLT 28001, CLCV 27200, FNLD 26611, CMLT 38001

CLAS 37316. The Humanities as a Way of Knowing. 100 Units.

Despite intertwined histories and many shared practices, the contemporary humanities and sciences stand in relationships of contrast and opposition to one another. The perceived fissure between the "Two Cultures" has been deepened by the fact that the bulk of all history and philosophy of science has been devoted to the natural sciences. This seminar addresses the history and epistemology of what in the nineteenth century came to be called the "sciences" and the "humanities" since the Renaissance from an integrated perspective. The historical sources will focus on shared practices in, among others, philology, natural history, astronomy, and history. The philosophical source will develop an epistemology of the humanities: how humanists know what they know.

Equivalent Course(s): HIST 29517, KNOW 40303, PHIL 20925, CHSS 30925, HIST 39517, SCSH 30925, PHIL 30925

CLAS 37506. Archaic Greece. 100 Units.

In order to understand the institutions, ideals, and practices that characterized Greek city-states in the Classical period, it is necessary to look to their genesis and evolution during the preceding Archaic period (ca. 700-480 BC). This course will examine the emergence and early development of the Greek city-states through a consideration of ancient written sources, inscriptions, material artifacts, and artistic representations as well as more recent secondary treatments of the period. General topics to be covered will include periodization, the rise of the polis, religion, warfare, the advent and uses of literacy, tyranny, and the emergence of civic ideology.

Instructor(s): J. Hall Terms Offered: Autumn

Equivalent Course(s): HIST 30303, ANCM 37506, HIST 20303, CLCV 27506

CLAS 38219. Self Interest and Other Concerns in Greek and Roman Philosophy. 100 Units.

TBA

Instructor(s): Elizabeth Asmis Terms Offered: Winter

Equivalent Course(s): ANCM 48219, CLCV 28219

CLAS 39200. Mimesis. 100 Units.

This course will examine one of the central concepts of comparative literature: mimesis (imitation). We will investigate traditional theoretical and historical debates concerning literary and visual mimesis as well as more recent discussions of its relation to non-western and colonial contexts. Readings will include Aristotle, Auerbach, Butler, Spivak, and Taussig. Students are encouraged to write final papers on their own research topics while engaging with issues discussed through the course.

Instructor(s): T. Chin Terms Offered: Winter 2013

Equivalent Course(s): CMLT 30202, EALC 30100

CLAS 40018. Varieties of the Sublime in Ancient Greek and Roman Thought. 100 Units.

When one thinks about the "Sublime", one ancient text stands out as foundational: Longinus' *On the Sublime*. This text had a profound influence on modern aesthetics. It is, however, only part of a rich tradition of ancient ideas about sublimity. This seminar will examine this tradition, which embraces philosophy, religion, and art. The aim of the class is to disentangle various strands of the sublime and examine their interrelationships. Our readings will take us from Plato to the Neoplatonists. They will include: Plato's *Symposium* and *Phaedrus*; selections from the Epicurean *Philodemus* and the Stoics; *Apuleius' Story of Cupid and Psyche* and book 11 of his *Metamorphoses*; and selections from *Plotinus*, *Porphyry*, and *Proclus' Commentary on Plato's Republic*. The topics will include: religious initiation, the use of allegory, and theories of visual and literary beauty. Knowledge of Greek and Latin is not required; but special sessions will be arranged for those who wish to read Greek or Latin texts. Open to undergraduates with the permission of the instructor.

Instructor(s): E. Asmis Terms Offered: Spring

Equivalent Course(s): BIBL 40018

CLAS 40117. The Commons & the Public: Figuring Collaborative Knowledge Production. 100 Units.

Starting with Roman Law and moving up to contemporary critiques of intellectual property, this seminar explores new ways of conceptualizing collaborative forms of knowledge production that have been typically referred to as "commons". We do so by following a series of parallel and intersecting questions, starting with those concerning what the commons are about: What were the traditional commons of things or resources (public lands, public spaces, fisheries, pastures, forests)? What are the new commons of knowledge (academic publications, free software, wikipedia, etc)? And what is the relationship between infrastructures (roads, harbors, Internet, and the commons)? We then look at the changing configurations of human actors associated with the commons, that is, the differences between the communities associated with the traditional commons of traditional resources and the publics, counterpublics, multitudes, and crowds, that are now associated with collaborative forms of knowledge making and political action. We try, in sum, to conceptualize the relationship between the new knowledge commons and new notions of the public. This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. No instructor consent is required, but registration is not final until after the 1st week in order to give Ph.D. students priority.

Equivalent Course(s): KNOW 40102

CLAS 41216. Aristophanes' Clouds and Plato's Gorgias. 100 Units.

An inquiry into Socrates based on two contrasting works.

Equivalent Course(s): SCTH 31926

CLAS 41415. Seminar: Late Antique Mediterranean 1. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE.

Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. Will continue in winter quarter.

Equivalent Course(s): ANCM 41415, HIST 71005

CLAS 41416. Seminar: Late Antique Mediterranean 2. 100 Units.

In the winter quarter we focus on research topics for the seminar paper.

Equivalent Course(s): HIST 71006, ANCM 41416

CLAS 41616. Case Studies on the Formation of Knowledge-I. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module." A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu Module 1 : Approaches to Knowledge Shadi Bartsch, Jack Gilbert The goal of this module is to identify central issues or debates in the theory of knowledge over the past century. Students will be introduced to basic issues in the sociology of knowledge, to the arguments for and against constructivist perspectives on knowledge, and to 21st century scientific standards for knowledge production. The course should provide students with a vocabulary and conceptual tools with which they argue about these issues and reflect upon the very conceptual tools they are using. Module 2: Democratic Knowledge Shadi Bartsch, Will Howell This module offers a variation on studies of the epistemic powers of democracy. Instead of asking questions such as how effective democracies are at gathering the knowledge they need to function, the module looks at

CLAS 41717. The Mediterranean Sea in Antiquity: Imperial Connections. 100 Units.

The Mediterranean Sea has long inspired imaginings of lands and peoples connected by its waters. From the Romans' *Mare Nostrum*, "our sea," to today's variants of "middle sea" - Greek *Mesogeios*, German *Mittelmeer*, and of course, Latin *Mediterranean* - imaginings of the sea have often celebrated its spatial and social cohesion. The Mediterranean continues to possess a middling geopolitical identity today, situated as it is between continental Europe, the Aegean, the Middle East, and North Africa. And yet, despite our diachronic investment in recognizing the Mediterranean's grand narrative as a locus of cultural connectivity, its long-term histories of interregional dynamics remain difficult to approach holistically. This concern is especially salient when it comes to the study of ancient empires, those large, expansionary polities whose social, political, and economic practices drew disparate groups together, and at times forced them apart. This class has two closely related objectives. First, we tackle the most ambitious pieces of scholarship on Mediterranean history to evaluate how various disciplines have sought to analyze and to bound the sea as a cartographic whole. In the process, we gain an appreciation not only for the methodological and interpretive scales involved in such an undertaking, but for the various disciplinary strategies the Mediterranean's diverse histories have inspired. Second, we interrogate one sociopolitical structure - the empire - and question how the Mediterranean encouraged and challenged imperialism as a recurring formation that worked to maintain sovereignty across broad geographical expanses. In doing so, we explore the variegated processes of cultural connectivity that have characterized the ancient Mediterranean from east to west.

Equivalent Course(s): ANCM 41717, NEHC 40020, CDIN 41717, ANTH 46715, HIST 51300

CLAS 42600. Ekphrasis: Art & Description. 100 Units.

This course explores the rich tradition of ekphrasis in Greco-Roman and Christian antiquity - as it ranges from vivid description in general to a specific engagement with works of art. While the prime focus will remain on texts from Greece and Rome (both prose and verse) - in order to establish what might be called the ancestry of a genre in the European tradition -- there will be opportunity in the final paper to range beyond this into questions of religious writing about art, comparative literature, art (history) writing and ekphrasis in other periods or contexts. The course is primarily intended for graduates - and a reading knowledge of Greek and Latin could not be described as a disadvantage! The course will be taught over 5 weeks in the Spring Quarter on an intensive schedule. It will be examined on the basis of a paper, due on a subject to be agreed and on a date to be agreed at the end of the Spring quarter.

Instructor(s): J. Elsner Terms Offered: Spring

Equivalent Course(s): BIBL 40400, NTEC 40400, ARTH 40400, RLCV 40400

CLAS 42815. Aeschylus and the Birth of Drama. 100 Units.

In this advanced seminar we will undertake an in-depth study of different aspects of the surviving corpus of Aeschylus (including meter, dialect, narrative, thematics, plot-construction, and ritual context), while placing it in a comparative context of early forms of drama and varieties of choral performance attested across the world. In addition to discussing all of Aeschylus's surviving works in English translation, we will read at least two of his plays in Greek (most likely, *Agamemnon* and *Seven Against Thebes*). We will also read important scholarship on Aeschylus. Advanced knowledge of Greek is a prerequisite.

Equivalent Course(s): CMLT 42804

CLAS 44300. The Iliad. 100 Units.

In this course we will read the ILLIAD in translation, supplemented by selections from the ODYSSEY and other texts from the archaic period, including the Epic Cycle fragments and the Hesiodic CATALOGUE OF WOMEN. We will also make some turns toward recent Iliadic ventures in English: not least Christopher Logue's WAR MUSIC and Alice Oswald's MEMORIAL. "The poem of force" according to Simone Weil, the ILLIAD is also the poem of marriage, homosociality/the "Mannerbund", and exchange. Among our concerns will be: the poetics of traditionality; the political economy of epic; the ILLIAD's construction of social order; the uses of reciprocity; gender in the Homeric poems. Although no knowledge of Greek is required for this course, there will be assignment options for those who wish to do reading in Greek.

Instructor(s): Laura Slatkin Terms Offered: Spring, course will be taught spring 2020

Prerequisite(s): Requirements: weekly readings; response paper for each class meeting; final paper.

Equivalent Course(s): FNDL 21214, SCTH 31210

CLAS 44512. Virgil, The Aeneid. 100 Units.

A close literary analysis of one of the most celebrated works of European literature. While the text, in its many dimensions, will offer more than adequate material for classroom analysis and discussion, attention will also be directed to the extraordinary reception of this epic, from Virgil's times to ours.

Instructor(s): G. Most Terms Offered: Winter 2013

Prerequisite(s): Latin helpful

Equivalent Course(s): ENGL 35902, SCTH 35902, CMLT 35902

CLAS 44916. The Discovery of Paganism. 100 Units.

How do we know what we know about ancient religions? Historians of religion often begin by turning to texts: either sacred texts, or, in the absence of such scriptures, descriptions of belief and practice by observers from outside the faith. Archaeologists focus their attention on the spaces and traces of religious practice-or at least those that survive-while art historians begin by examining images of deities and religious rites. Yet we often fail to see the extent to which the questions which we ask of all of these diverse sources are conditioned by Christian rhetoric about pagan worship. In this course, we compare two moments when Christians encountered "pagans": during the initial Christian construction of a discourse on paganism (and, more broadly, a discourse on religion) during the late Roman empire and during the Spanish discovery of the New World. Our course examines silences and absences in the textual and material records, as well as the divergences between texts and objects, in order to further our understanding of ancient religious practice. We will begin to see the many ways in which, as scholars of religion, we are in effect still Christian theologians, paving the way for new approaches to the study of ancient religion.

Equivalent Course(s): ARTH 40310, HIST 64202, CDIN 40301, LACS 40301, ANCM 44916, HREL 40301, KNOW 40301

CLAS 45116. Seminar: Patronage and Culture in Renaissance Italy and Her Neighbors I. 100 Units.

A two-quarter research seminar; the first quarter may be taken separately as a colloquium with the instructor's permission. The great works of literature, philosophy, art, architecture, music, and science which the word "Renaissance" invokes were products of a complex system of patronage and hierarchy, in which local, personal, and international politics were as essential to innovation as ideas and movements. This course examines how historians of early modern Europe can strive to access, understand, and describe the web of hierarchy and inequality that bound the creative minds of Renaissance Europe to wealthy patrons, poor apprentices, distant princes, friends and rivals, women and servants, and the many other agents, almost invisible in written sources, who were vital to the production and transformation of culture.

Equivalent Course(s): HIST 81503, ITAL 41503, KNOW 41402

CLAS 45117. Seminar: Patronage and Culture in Renaissance Italy and Her Neighbors II. 100 Units.

The second quarter is mainly for graduate students writing a seminar research paper.

Equivalent Course(s): KNOW 41403, ITAL 41504, HIST 81504

CLAS 45613. Hölderlin and the Greeks. 100 Units.

The German poet Friedrich Hölderlin submitted to the paradoxical double-bind of Johann Joachim Winckelmann's injunction that "the only way for us [Germans] to become great or-if this is possible-inimitable, is to imitate the ancients." As he wrote in his short essay "The standpoint from which we should consider antiquity," Hölderlin feared being crushed by the originary brilliance of his Greek models (as the Greeks themselves had been), and yet foresaw that modern European self-formation must endure the ordeal of its encounter with the Greek Other. The faculty of the imagination was instrumental to the mediated self-formation of this Bildung project, for imagination alone was capable of making Greece a living, vitalizing presence on the page. Our seminar will therefore trace the work of poetic imagination in Hölderlin's texts: the spatiality and mediality of the written and printed page, and their relation to the temporal rhythms of spoken discourse. All texts will be read in English translation, but a reading knowledge of German and/or Greek would be desirable.

Instructor(s): C. Wild Terms Offered: Spring

Equivalent Course(s): GRMN 35614, CMLT 35614

CLAS 45716. Seminar: Ghosts, Demons and Supernatural Danger in the Ancient World. 100 Units.

This two-quarter graduate seminar, which fulfills the seminar requirement for graduate students in the Department of Classics' Program in the Ancient Mediterranean World, will examine the ancient discourses on and the ritual remedies for supernatural danger in Persian, Greek, Norse, Roman and other cultures. The first quarter will be devoted to guided reading and discussion while the second quarter will be reserved for writing a major research paper. Students, by arrangement with the instructor, will also be permitted to enroll for just the first quarter and write a shorter paper or take-home exam.
 Instructor(s): C. Faraone, B. Lincoln
 Terms Offered: Winter
 Equivalent Course(s): ANCM 45716, HREL 45716

CLAS 45818. Hellenistic Ethics. 100 Units.

The three leading schools of the Hellenistic era (starting in Greece in the late fourth century B. C. E. and extending through the second century C. E. in Rome) - Epicureans, Sceptics, and Stoics - produced philosophical work of lasting value, frequently neglected because of the fragmentary nature of the Greek evidence and people's (unjustified) contempt for Roman philosophy. We will study in a detailed and philosophically careful way the major ethical arguments of all three schools. Topics to be addressed include: the nature and role of pleasure; the role of the fear of death in human life; other sources of disturbance (such as having definite ethical beliefs?); the nature of the emotions and their role in a moral life; the nature of appropriate action; the meaning of the injunction to "live in accordance with nature". If time permits we will say something about Stoic political philosophy and its idea of global duty. Major sources (read in English) will include the three surviving letters of Epicurus and other fragments; the skeptical writings of Sextus Empiricus; the presentation of Stoic ideas in the Greek biographer Diogenes Laertius and the Roman philosophers Cicero and Seneca. (IV)

Instructor(s): M. Nussbaum
 Terms Offered: Autumn

Prerequisite(s): Admission by permission of the instructor. Permission must be sought in writing by September 15. An undergraduate major in philosophy or some equivalent solid philosophy preparation, plus my permission. This is a 500 level course. Ph.D. students in Philosophy, Classics, and Political Theory may enroll without permission.

Note(s): This course complements the Latin course on Stoic Ethics in the Winter quarter, and many will enjoy doing both.

Equivalent Course(s): PLSC 55818, RETH 55818, PHIL 55818

CLAS 45913. Sem: Ancient medical writings in context. 100 Units.

Ancient medicine is intimately linked with philosophical investigation. From the beginning, it fed philosophical theory as well as adapted it to its own use. It also offers a valuable insight into how ordinary humans lived their lives. Medical practice takes us into the homes of the Greeks and Romans, while shedding light on their fears and aspirations. The extant literature is voluminous. There is, first of all, the Hippocratic corpus, a diverse collection of medical writings that drew inspiration from the reputed founder of scientific medicine, Hippocrates. These writings offer a unique insight into the first stages of the creation of a science. Later, Galen established the foundation of Western medicine by his brilliant dissections. As it happens, he was extremely voluble; and he took care to have his spoken words passed on in writing. As a result, we learn much more than just medical theory: we know how physicians competed with one another, and how they related to their patients. In sum, this seminar will study a selection of medical writings, conjointly with some philosophical and literary writings, in an attempt to gauge the intellectual and social significance of ancient medicine. Some knowledge of Greek will be useful.

Instructor(s): E. Asmis
 Terms Offered: Winter

Equivalent Course(s): BIBL 45913

CLAS 46313. Sem: Augustine. 100 Units.

Instructor(s): Clifford Ando
 Terms Offered: Winter

Equivalent Course(s): HIST 33513, SETH 37105, HIST 23513

CLAS 46616. Religion and Reason. 100 Units.

The quarrel between reason and faith has a long history. The birth of Christianity was in the crucible of rationality. The ancient Greeks privileged this human capacity above all others, finding in reason the quality wherein man was closest to the gods, while the early Christians found this viewpoint antithetical to religious humility. As religion and its place in society have evolved throughout history, so have the standing of, and philosophical justification for, non-belief on rational grounds. This course will examine the intellectual and cultural history of arguments against religion in Western thought from antiquity to the present. Along the way, of course, we will also examine the assumptions bound up in the binary terms "religion" and "reason."

Equivalent Course(s): PHIL 43011, HIST 66606, KNOW 40201, DVPR 46616, CHSS 40201

CLAS 47415. Sem: Atheism and the Greeks. 100 Units.**CLAS 47515. Sem: Ghosts, Demons & Supernatural Danger in the Anc. World. 100 Units.**

Equivalent Course(s): HREL 45715, ANCM 45715

CLAS 47717. Seminar: Augustine Confessions. 100 Units.

This seminar is based on in-depth reading of the Confessions, with use of the Latin text. Topics to be covered will be determined by consensus during the first week, but they may include the genesis of the work in relation to Augustine's life and literary oeuvre (e.g. vis-à-vis the partly contemporary *De Doctrina* and *De Trinitate*); its structure (including the relationship between books I-X and XI-XIII) and narrative technique; its meditative versus dialogical character; Augustine's representation of the self and his method of Biblical exegesis; Manichean and Neoplatonic influences; and ancient (Pelagius) and postmodern readings of the Confessions (Lyotard, Marion). Once-weekly meetings will consist of discussions, lectures, and reports.

Equivalent Course(s): HCHR 47717, THEO 47717, HIST 64301, HREL 47717

CLAS 48017. Phaedras Compared: Adaptation, Gender, Tragic Form. 100 Units.

This seminar places Racine's French neoclassical tragedy *Phaedra* within a wide-ranging series of adaptations of the ancient myth, from its Greek and Latin sources (Euripides, Seneca, Ovid) to twentieth-century and contemporary translations and stage adaptations (Ted Hughes, Sarah Kane), read along with a series of theoretical and critical texts. Particular attention will be paid to critical paradigms and approaches in the evolving fields of classical reception studies, theater and performance studies, and gender studies. Reading knowledge of French strongly preferred.

Equivalent Course(s): FREN 48017, CDIN 48017, TAPS 48017, GNSE 48017, CMLT 48017

CLAS 48616. Hölderlin and the Greeks. 100 Units.

The German poet Friedrich Hölderlin submitted to the paradoxical double-bind of Johann Joachim Winckelmann's injunction that "the only way for us [Germans] to become great or - if this is possible - inimitable, is to imitate the ancients." As he wrote in his short essay "The standpoint from which we should consider antiquity," Hölderlin feared being crushed by the originary brilliance of his Greek models (as the Greeks themselves had been), and yet foresaw that modern European self-formation must endure the ordeal of its encounter with the Greek *Other*. The faculty of the imagination was instrumental to the mediated self-formation of this *Bildung* project, for imagination alone was capable of making Greece a living, vitalizing, presence on the page. Our seminar will therefore trace the work of poetic imagination in Hölderlin's texts: the spatiality and mediality of the written and printed page, and their relation to the temporal rhythms of lived experience. All texts will be read in English translation, but a reading knowledge of German and/or Greek would be desirable.

Equivalent Course(s): CMLT 48616, GRMN 48616

CLAS 48916. The Formation of the Modern Concept of History. 100 Units.

Equivalent Course(s): SETH 51302, CMLT 42916, PHIL 53102, HIST 52805

CLAS 49000. Prospectus Workshop. 100 Units.

A workshop for students who have completed coursework and qualifying exams, it aims to provide practical assistance and a collaborative environment for students preparing the dissertation prospectus. It will meet bi-weekly for two quarters.

Instructor(s): C. Faraone Terms Offered: Autumn Spring Winter. winter

CLAS 49700. Reading Course: Classics. 100 Units.

Reading Courses are designed ad-hoc in consultation between one or more students and a faculty member, usually in preparation for a student's research project. They carry the same workload as regularly scheduled courses.

CLAS 50000. Rhetoric and Poetics Workshop. 000 Units.

TBA

Instructor(s): TBA Terms Offered: Autumn Spring Winter

CLAS 70000. Advanced Study: Classical Languages & Literature. 300.00 Units.

Advanced Study: Classical Languages & Literature

GREEK COURSES**GREK 31116. Herodotus. 100 Units.**

Herodotus has a well-deserved reputation as a great story teller. He broke new ground in his writing of a history of the world as he knew it in prose, while at the same time claiming the heritage of Homeric epic. While reading Herodotus will prove to be a pleasure in itself, it will also help aspiring Hellenists get the hang of the structural characteristics of Greek narrative prose. Readings will be primarily from book 1, with a selection of passages from the later books. Students are encouraged to read the full Histories in translation. Instructor(s): H. Dik Terms Offered: Autumn Equivalent Course(s): GREK 31116

Instructor(s): D. Martínez Terms Offered: Autumn

Equivalent Course(s): GREK 21116, FNLD 21116, RLST 21116, BIBL 31116, NEHC 21116, NEHC 31116

GREK 31216. Greek Philosophy. 100 Units.

The Phaedrus is one of the most fascinating and compelling of Plato's Dialogues. Beginning with a playful treatment of the theme of erotic passion, it continues with a consideration of the nature of inspiration, love, and knowledge. The centerpiece is one of the most famous of the Platonic myths, the moving description of the charioteer and its allegory of the vision, fall, and incarnation of the soul.

Instructor(s): E. Asmis Terms Offered: Spring

Equivalent Course(s): GREK 21216, FNLD 21005, BIBL 31200, RLST 21200

GREK 31300. Greek Tragedy. 100 Units.

This course is an introduction to Aeschylean drama, seen through the special problems posed by one play, Prometheus Bound. Lectures and discussions are concerned with the play, the development and early form of Attic drama, and philosophical material. Modern Aeschylean scholars are also read and discussed.

Instructor(s): M. Payne Terms Offered: Spring

Equivalent Course(s): GREK 21300

GREK 31700. Lyric and Epinician Poetry. 100 Units.

This course will examine instances of Greek lyric genres throughout the archaic and classical periods, focusing on the structure, themes and sounds of the poetry and investigating their performative and historical contexts. Readings will include Alcman, Sappho, Alcaeus, Anacreon, Ibycus, Alcaeus, Simonides, Bacchylides, Pindar and Timotheus. In Greek.

Terms Offered: Autumn TBD. Not offered 2019-20. Will be offered 2020-21.

Prerequisite(s): GREK 20300 or equivalent

Equivalent Course(s): GREK 21700

GREK 31800. Greek Epic. 100 Units.

This course is a reading of sections from Homer's Iliad. We will focus on character, emotions, and relationality in the poem, with an eye to evaluating the poem's many perspectives on mortality, relations with the divine, conceptions of the polis, and the nature of excellence.

Terms Offered: TBD Not offered 2019-20 will be offered 2021-22

Prerequisite(s): Two years or more of Greek.

Equivalent Course(s): GREK 21800

GREK 31900. Greek Oratory. 100 Units.

With Isocrates, Greek artistic prose reached its technical perfection," says L. R. Palmer in *The Greek Language*. Yet Isocrates has not found nearly so prominent a place in the university curriculum as have Demosthenes and Lysias. This course will attempt to give the great orator his due. We will start with his speech on Helen, comparing it with Gorgias' famous Encomium. We will also read the ad Demonicum, which became something of a handbook in later Hellenistic and Roman-period schools, and the Panegyricus. We will consider carefully Isocratean language and diction, and why it has merited such sustained praise among connoisseurs of Greek prose style, ancient and modern. We will also emphasize the centrality of Isocrates' contribution to Greek paideia.

Terms Offered: TBD Not offered 2019-20 will be offered 2021-22

Prerequisite(s): Two years or more of Greek.

Equivalent Course(s): GREK 21900

GREK 32300. Greek Tragedy: Hellenistic/Imperial Literature. 100 Units.

This course features selections from the poetry and/or prose of the Hellenistic and Imperial periods. This year we will read selections from Hellenistic poetry, with a particular focus on the Hymns of Callimachus.

Terms Offered: Spring. Will be offered 2020-21

Prerequisite(s): GREK 20300 or equivalent

Equivalent Course(s): GREK 22300

GREK 32400. Greek Comedy: Aristophanes. 100 Units.

We will read in Greek Menander's *Dyskolos*, with an eye to understanding "New Comedy" and its robust afterlife in Renaissance Europe and modern sitcoms. We will also devote some time to reading and assessing fragments from Menander's contemporaries. Coursework will include translation as well as secondary readings.

Terms Offered: Will be offered 2020-21

Equivalent Course(s): GREK 22400, CLAS 32400, HIST 20403, HIST 30403

GREK 32515. Greek Historians: Thucydides. 100 Units.

In this course we will read book 1 of Thucydides, his description of the run-up to the Peloponnesian War, in Greek. We will pay attention to Thucydides' style and approach to historiography, sinking our teeth into this difficult but endlessly fascinating text.

Terms Offered: Autumn. Will be offered 2020-21

Prerequisite(s): At least two years of Greek.

Equivalent Course(s): FNLD 22517, GREK 22515

GREK 32700. Survey of Greek Literature I. 100 Units.

We will cover Greek poetry, including drama, from Homer to Callimachus. Classes will be concerned chiefly with genre, style, meter, and literary tropes with some discussion of the scholarly history on these texts. There will be some close study of passages chosen to exemplify problems of interpretation or to display the major themes in each poet's work.

Instructor(s): S. Nooter Terms Offered: Winter

GREK 32800. Survey of Greek Literature II. 100 Units.

A study of the creation of the canonical Greek prose style in the 5th and 4th centuries. Rapid reading and translation exercises.

Instructor(s): H. Dik Terms Offered: Offered 2015-2016

GREK 34400. Greek Prose Composition. 100 Units.

The goal of this course is to write accurate sentences and paragraphs in classical Attic Greek. We are not concerned here with stylistic imitation, but rather to write Attic prose clearly and correctly. The most obvious benefits of this exercise will be thorough review of basic morphology and syntax as well as fine-tuning one's grasp of the more subtle nuances of the Greek language. Another important benefit is cultivating Attic prose as a kind of linguistic standard or canon by which we are able to better understand other Greek styles of writing and types of diction. The vantage point of a standard allows us to analyze and understand other styles on their own terms and merits, whether Herodotos, Epic, New Testament, etc.

Instructor(s): D. Martinez Terms Offered: Autumn

Prerequisite(s): Consent of instructor

GREK 34519. Lucian. 100 Units.

Lucian's sparkling dialogues and essays are among the best of Greek humorous writing. Conscious of his long tradition, Lucian explores such topics as moral philosophy, literary history, and issues of fantasy, escapism, and belief—all while maintaining a light touch. We will read several works of Lucian in the original Greek. Translation will be supplemented by thematic discussions of Lucian's comic technique and intellectual concerns.

Instructor(s): A. Horne Terms Offered: Winter

Equivalent Course(s): GREK 24519

GREK 35116. Reading Greek Literature in the Papyri. 100 Units.

The earliest—and often the only—witnesses for Greek literary works are the papyri. This makes their testimony of great importance for literary history and interpretation, but that testimony does not come without problems. In this course we will cover some of the concepts and techniques needed to recover the literary treasure contained in this highly complex material: from the history of book forms, the textual tradition of literary works, and the creation of the canons to more philological aspects such as editorial practice, Textkritik, and paleography. Our literary corpus will include biblical texts, paraliterary (school and magical) texts, and translations of Egyptian texts into Greek. We will work with photographs of the papyri, and every part of the course will be based on practice. As appropriate we will also work with the University of Chicago's collections of papyri.

Prerequisite(s): at least two years of Greek

Equivalent Course(s): GREK 25116, HCHR 36916, BIBL 36916, ANCM 45116

GREK 35417. The Paris Magical Codex (PGM IV) 100 Units.

The Greek magical papyri have been called "one of the largest collections of functioning ritual texts... that has survived from late-antiquity" (J.Z. Smith) and deserve close study. The Paris magical codex (PGM IV) is by far the longest and best preserved and will be the focus of the seminar not only as a key transmitter of scores of magical recipes, but also as a material artifact, that needs to be approached from the discipline of papyrology. In this seminar, then, we will devote much time to papyrological practice by editing the entire text of PGM IV and observing many of its important features: codicology, page setup, paleography, drawings, patterns. But we will also discuss how this handbook is an important source for the history of ancient curses, amulets, divination and erotic magic.

Equivalent Course(s): GREK 42417

GREK 36918. Readings in Plutarch's Demonology. 100 Units.

We will read sections of Plutarch's *Moralia* dealing with the topic of daimones, particularly from the treatise *De defectu oraculorum* ("On the Decline of the Oracles"). We will also read the major demonological passages from the Greek New Testament and compare the perspectives on the origin, nature, and activities of the daimon.

Instructor(s): David Martinez Terms Offered: Winter

Prerequisite(s): At least two years of Greek required.

Equivalent Course(s): BIBL 46900

GREK 37100. The Corpus Hermeticum. 100 Units.

According to Clement of Alexandria Hermes Trismegistus authored 42 "fundamental books" on Egyptian religion. The writings under his name which are extant, dating between the first and third centuries AD, incorporate many styles and genres, including cosmogony, prophecy, gospel, popular philosophy, anthropology, magic, hymn, and apocalypse. The first treatise in the collection well represents the whole. It tells how the god Ptolemy manifests to his follower a vision, revealing the origin of the kosmos and humanity, and how archetypal man descends to his fallen state and may be redeemed. We will begin with the Ptolemy and then read other sections of this strange but absorbing body of material (including Books 4, 10, 13 and 16).

Instructor(s): David Martinez Terms Offered: Winter

Prerequisite(s): At least two years of Greek required.

Equivalent Course(s): BIBL 49900

GREK 37114. Origen of Alexandria. 100 Units.

It is difficult to conceive of doing justice to the vast scope of Origen's work in one quarter, but we will do our best to sample generous selections from the Greek text of his exegetical, homiletic, and doctrinal writing, including a substantive selection from his Treatise on Prayer and perhaps the section of the Dialogue with Heraclides preserved among the Tura papyri. We will of course focus on Origen as the greatest exponent of the allegorical method of biblical interpretation and its Platonic underpinnings. We will also consider carefully the style of his Greek and his position as a Christian apologist.

Equivalent Course(s): BIBL 49800

GREK 40617. Sem: Epictetus/Aurelius. 100 Units.

Both Epictetus' Discourses and Marcus Aurelius' Meditations have been philosophical best sellers ever since antiquity. Both humanize ancient Stoicism. In this seminar, we will look closely at the Greek text to investigate each author's unique response to Stoic doctrine. The focus of the seminar will be on the creativity of each author in reshaping Stoic doctrine. We will also look at the reception of these authors in the Renaissance and later.

Prerequisite: the equivalent of two years of Ancient Greek.

Instructor(s): E. Asmis. Terms Offered: Spring

Equivalent Course(s): BIBL 40617

GREK 41217. Aeschylus' Oresteia: Drama and Democracy. 100 Units.

The Oresteia: Aeschylus's prizewinning trilogy explores (among other things) the fortunes of the house of Atreus, the making of the polis, matters of state, gender trouble, questions of kinship, revenge and its impasses, institutions of justice. Ancient Greek theater in the early-mid 5th c. BCE both maps and reckons with the constitutive tensions in the polis between residual (but still influential) aristocratic norms and practices and the newly dominant (but still developing democratic ethos and ideals - its practices institutionalized in the assembly, the magistracies, and the courts. Aeschylus's Oresteia both represents and contributes to that debate (in antiquity and in current scholarship). This trilogy helps us understand crucial aspects of the society that produced it but also invites us to reflect on the ways ancient literature informs how we think about ourselves and our predicaments now - political, familial, existential. And the Oresteia further invites us to think about the uses and possibilities of theater, then and now. We will supplement our reading of the play with commentary grounded in literary interpretation and cultural poetics, as well as philosophy and political theory. Although no knowledge of Greek is required for this course, there will be assignment options for those who wish to do reading in Greek.

Equivalent Course(s): SCTH 31224, FNDL 21224

GREK 42118. The Embodied Word in Greek Poetry. 100 Units.

This course examines materiality in practice and materiality as metaphor in Greek poetry. Themes for exploration will include the shared identity of music and poetry in the Homeric world; erotic language and temporalities in archaic lyric poetry; the relationship of poetic sound and embodied performance in choral song; and the role of the written word in instantiating the poetic one in several contexts and media of poetic production and transmission. Readings will include Homer, Archilochus, Sappho, Simonides, Pindar, Aristophanes, Timotheus, Plato and epigrams, as well as some poems in English from the modern period.

Instructor(s): S. Nooter Terms Offered: Autumn

GREK 42417. The Paris Magical Codex (PGM IV) 100 Units.

The Greek magical papyri have been called "one of the largest collections of functioning ritual texts... that has survived from late-antiquity" (J.Z. Smith) and deserve close study. The Paris magical codex (PGM IV) is by far the longest and best preserved and will be the focus of the seminar not only as a key transmitter of scores of magical recipes, but also as a material artifact, that needs to be approached from the discipline of papyrology. In this seminar, then, we will devote much time to papyrological practice by editing the entire text of PGM IV and observing many of its important features: codicology, page setup, paleography, drawings, patterns. But we will also discuss how this handbook is an important source for the history of ancient curses, amulets, divination and erotic magic.

Equivalent Course(s): GREK 35417

GREK 45808. Antigone. 100 Units.

Equivalent Course(s): CMLT 31221, SCTH 31221

GREK 46518. Sem: Hesiod and the Homeric Hymns. 100 Units.

We will read in Greek and slowly discuss Hesiod's Theogony, the proem to the Works and Days and the four longer Homeric Hymns to Aphrodite, Apollo, Demeter and Hermes. Students will be evaluated on their in-class translations and a seminar paper.

Instructor(s): C. Faraone & B. Lincoln Terms Offered: Winter

Equivalent Course(s): ANCM 36518, HREL 46518

GREK 49700. Reading Course: Greek. 100 Units.

Reading Courses are designed ad-hoc in consultation between one or more students and a faculty member, usually in preparation for a student's research project. They carry the same workload as regularly scheduled courses.

LATIN COURSES

LATN 30100. Introduction To Latin-1. 100 Units.

Equivalent Course(s): NTEC 30100

LATN 30200. Introduction To Latin-2. 100 Units.

Equivalent Course(s): NTEC 30200

LATN 30300. Introduction To Latin-3. 100 Units.**LATN 31100. Roman Elegy. 100 Units.**

This course examines the development of the Latin elegy from Catullus to Ovid. Our major themes are the use of motifs and topics and their relationship to the problem of poetic persona.

Instructor(s): D. Wray. Terms Offered: Autumn

Equivalent Course(s): CMLT 31101, CMLT 21101, LATN 21100

LATN 31200. Roman Novel. 100 Units.

We shall read from various Latin texts that participate in the tradition of the Ancient novel.

Instructor(s): P. White Terms Offered: Winter

Equivalent Course(s): LATN 21200, FNLD 21204

LATN 31219. Philosophical Prose: Cicero, Tusculan Disputations" 100 Units.

Several months after the death of his beloved daughter and just two years before his own death, Cicero composed a dialog with an imaginary interlocutor arguing that death, pain, grief, and other perturbations were an unimportant part of the big picture. A reading of this famous contribution-all of it in English, selections in Latin-to the genre of consolation literature affords an opportunity to weigh his many examples and his arguments for ourselves.

Instructor(s): P. White. Terms Offered: Spring

Note(s): Latin 203 or equivalent.

Equivalent Course(s): LATN 21219, FNLD 21219

LATN 31300. Vergil. 100 Units.

Vergil's ten Eclogues are some of Latin literature's most enigmatic poems. In addition to reading this collection carefully in Latin, we will sample some of Theocritus' pastoral in translation, Calpurnius Siculus' Eclogues in Latin, and Milton's Lycidas. Class time will focus on translation, interpretation, and discussion of secondary readings.

Instructor(s): M. Lowrie Terms Offered: Spring. Topic: Eclogues

Equivalent Course(s): LATN 21300

LATN 31500. Roman Satire. 100 Units.

The object of this course is to study the emergence of satire as a Roman literary genre with a recognized subject matter and style. Readings include Horace Satires 1.1, 4, 6, and 10 and 2.1, 5 and 7; Persius 1 and 5; and Juvenal 1 and 3.

Terms Offered: Will be offered 2020-21.

Equivalent Course(s): LATN 21500

LATN 31600. Roman Oratory. 100 Units.

Cicero's first speech, in defense of a client charged with parricide, receives a close reading in Latin and in English. The speech is considered in relation to theories set out in Cicero's rhetorical writings, in relation to the role of the criminal courts in Late Republican Rome, and in relation to other defense speeches by Cicero.

Equivalent Course(s): LATN 21600

LATN 31700. Post-Virgilian Epic. 100 Units.

We will read several books of Lucan's *Bellum Civile* in Latin and the entire poem in translation. Discussion topics will include the historical context of the epic, its self-portrayal as anti-epic, the use of rhetoric, hyperbole, and paradox as ideological tools, and the narrator's intrusive voice. Requirements: 4 quizzes, midterm paper, final exam.

Terms Offered: Autumn Spring

Prerequisite(s): LATN 20300 or equivalent

Equivalent Course(s): LATN 21700

LATN 31800. Roman Historian. 100 Units.

Primary readings are drawn from the Tiberian books of the Annals, in which Tacitus describes the consolidation of the imperial regime after the death of Augustus. Parallel accounts and secondary readings are used to help bring out the methods of selecting and ordering data and the stylistic effects that typify a Tacitean narrative.

Instructor(s): P. White Terms Offered: Spring

Prerequisite(s): LATN 20300 or equivalent

Note(s): Topic: Tacitus.

Equivalent Course(s): LATN 21800

LATN 31900. Roman Comedy. 100 Units.

Plautus' *Pseudolus* is read in Latin, along with secondary readings that explain the social context and the theatrical conventions of Roman comedy. Class meetings are devoted less to translation than to study of the language, plot construction, and stage techniques at work in the *Pseudolus*.

Instructor(s): D. Wray Terms Offered: Spring

Prerequisite(s): LATN 20300 or equivalent

Equivalent Course(s): LATN 21900, ANCM 41919

LATN 32100. Lucretius. 100 Units.

We will read selections of Lucretius' magisterial account of a universe composed of atoms. The focus of our inquiry is: how did Lucretius convert a seemingly dry philosophical doctrine about the physical composition of the universe into a gripping message of personal salvation? The selections include Lucretius' vision of an infinite universe, of heaven, and of the hell that humans have created for themselves on earth.

Terms Offered: Autumn. This course will be offered 2020-21.

Equivalent Course(s): LATN 22100

LATN 32800. Survey of Latin Literature II. 100 Units.

With emphasis on major trends in modern critical interpretations of the major figures.

Instructor(s): P. White Terms Offered: Winter

LATN 34400. Latin Prose Composition. 100 Units.

This course is a practical introduction to the styles of classical Latin prose. After a brief and systematic review of Latin syntax, we combine regular exercises in composition with readings from a variety of prose stylists. Our goal is to increase the students' awareness of the classical artists' skill and also their own command of Latin idiom and sentence structure.

Terms Offered: Autumn. Not offered 2017-18

Prerequisite(s): Undergraduates consent of instructor

LATN 35200. Medieval Latin. 100 Units.

The Practice of Carolingian Saints' Tales. Spoken "Lingua Romana rustica" departed from canonical Ancient Latin long before the late eighth century. But at this time the renewed study of the Classics and grammar soon prompted scholars and poets to update the stories of their favorite saints, and to inscribe some for the first time.

We shall examine examples of ninth-century Carolingian "réécriture" and of tandem new hagiography in both prose and verse by authors such as Lupus of Ferrières, Marcward of Prüm, Wandalbert of Prüm, Hildegard of Meaux and Heiric of Auxerre. All source readings in Classical Latin adapted to new Carolingian purposes, which we shall also explore historically in their own right.

Instructor(s): M. Allen Terms Offered: Winter

Equivalent Course(s): HIST 33207, HIST 23207, HCHR 35200, LATN 25200

LATN 40917. Vergilian Receptions. 100 Units.

This seminar offers a series of case-studies in the reception of Vergil's *Aeneid*. We will start with the ancient commentators, then move on to Macrobius, Fulgentius, and the medieval allegorists, Dante's *Inferno*, the *Aeneid* and Christianity, the *Aeneid* in the New World, the poem's treatment before and after WWI, the *Aeneid* in the hands of the Italian Fascists, and finally, contemporary trends in interpretation. We will also address reception theory, the figure of Dido through time, and, if there is time, the *Aeneid* in art. Where possible, readings will be in Latin.

Instructor(s): S. Bartsch-Zimmer

LATN 48116. Seminar: Cicero Orator. 100 Units.

Cicero's culminating essay on oratory is compared with Aristotle's *Rhetoric*, other rhetorical writings by Cicero, and some of the speeches with the aim of identifying distinctive preoccupations of Latin oratory at the end of the Republic. Topics considered include the influence of philosophy on rhetoric, practice versus theory, teleology in the history of Roman oratory, the construction of Roman *auctoritas*, and the relation of live performance to publication. Ident. CLAS 48116. Peter White. ARR.

Equivalent Course(s): BIBL 48116

LATN 49700. Reading Course: Latin. 100 Units.

Reading Courses are designed ad-hoc in consultation between one or more students and a faculty member, usually in preparation for a student's research project. They carry the same workload as regularly scheduled courses.



DEPARTMENT OF COMPARATIVE LITERATURE

Chair

- Sascha Ebeling

Director of Graduate Studies

- TBD

Director of Undergraduate Studies

- Olga Solovieva

Professors

- Arnold Davidson
- Frederick de Armas
- Loren A. Kruger
- Françoise Meltzer
- Thomas Pavel
- Mark Payne
- Haun Saussy
- Michael Sells
- Joshua Scodel

Associate Professors

- Sascha Ebeling
- Na'ama Rokem
- Lawrence Rothfield
- David Wray

Assistant Professors

- Leah Feldman
- Olga Solovieva
- Anna Elena Torres

The Department of Comparative Literature promotes the multidisciplinary, historically self-reflective and cross-cultural study of texts, traditions, and discourses. The department offers students the opportunity to grapple in a rigorous way with the most pressing issues in literary studies today, such as the questioning of national and cultural boundaries and identities; the struggle over literature's epistemological, ethical, or social authority; the debate about what counts as literature, and why; and the interaction between literature and other cultural or intellectual practices. To that end, the department works with every student individually to arrange a course of studies fitted to their background and scholarly interests. Students may choose from courses offered by the department, as well as those offered by other departments in the Division of the Humanities and in some cases those offered by other divisions. Since we place particular emphasis on reading texts in their original language, all students are expected to develop the highest possible competence in the languages they work with. Students generally use their first years (the time period leading to the Master's degree) to explore areas of interest and to strengthen their language competence. Students pursue the Ph.D. in one of two tracks of learning and training:

1. National literatures
2. Literature and other disciplines

Track I is a program of studies of one national literature (the major) in its historical entirety and of a second national literature (the minor) in a specified area. Track II consists of the study of a literature or some part of that literature and its relationship to another discipline such as sociology, psychoanalysis, philosophy, or religion. It is assumed that whichever option the student chooses, a comprehensive, international perspective on the relevant problem will be sought and maintained. Students will be provided with individual counseling to help them formulate programs of study that will answer to their needs and interests. There are no formal boundaries to the extent and nature of these interests, although the department will require that programs be coherently conceived and responsibly carried out.

THE DEGREE OF MASTER OF ARTS

The objective of the program is the Ph.D. degree. Doctoral students in the program are eligible for an M.A. degree after completing the following requirements: a program of eight graduate level courses (one full academic year), all of which must be taken for a letter grade; the required two-quarter Introduction to Comparative Literature sequence; and demonstrated competence (high proficiency in a graduate literature course or high pass in a University examination) in two foreign languages, one of which must be either French or German. The remaining six quarter courses are normally divided among two literatures, although a student may, with the Department's permission, place greater emphasis on one literature or on some special interest. Satisfactory completion of the M.A. requirements will be based on a student's grade record and performance in the required two-quarter sequence.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students are required to take six graduate level courses in their second year of Ph.D. study and two in their third year. Students are also required to write a minimum of one substantial paper in the first year and two substantial papers in the second year. Substantial papers should be 20-25 pages, not including bibliography with standard formatting and 12 point font. Copies of these papers must be submitted to the Director of Graduate Studies with the evaluation form.

In the two years of post-M.A. courses, students may take no more than one of the required courses per year for a Pass/Fail grade (i.e., one of the six required graduate level courses for the first year of post-M.A. doctoral level study, and one of the two required graduate level courses in the second year of doctoral level study).

Before the student is recommended for admission to candidacy for the doctor's degree, he or she must pass satisfactorily an oral examination after completion of eight Ph.D. level courses. This examination will be based on one of the following two options:

Track I requires The National Literature Oral. This is an examination based on no fewer than 60 titles in the major literature and no fewer than 30 titles in the minor literature. The list for the major literature will cover all periods and genres. The list for minor literature will cover the major texts of the approved period or genre.

Track II requires The Field Oral. This is an oral examination on a representative list of approximately 70-90 titles in a given comparative field, such as literature and anthropology, literature and art, literature and film, literature and history, literature and linguistics, literature and music, literature and psychology, literature and sociology, literature and religion, literature and science. Texts chosen for this exam are to be distributed evenly between the two disciplines.

LANGUAGE REQUIREMENTS

For admission to candidacy the same language requirements hold for both Track I and Track II.

The minimal requirements:

- High proficiency in French or German (demonstrated by passing a graduate literature course in the language or a high pass (P+) on the Graduate Reading Exam (<http://languageassessment.uchicago.edu/page/academic-reading-comprehension-assessment>))
- and
- High proficiency in a second language other than English (demonstrated by passing a graduate literature course in the language or a high pass (P+) on the Graduate Reading Exam (<http://languageassessment.uchicago.edu/page/academic-reading-comprehension-assessment>))

All graduate students who wish to fulfill the language requirement through graduate course work must pick up a form in the departmental office to be filled out by the instructor after the course work has been completed. No student will receive credit for the language requirement by course work without the instructor's completion of such a form. The form will rate the student's general knowledge of the language with emphasis on reading skills.

Students should also be working towards native fluency in the language of their major literature, first by coursework on our campus and, once they have exhausted the University's offerings, by applying to study abroad. Funding for language study depends on the language and on the student's immigration status; for information, please review the websites of the Division (<http://humanities.uchicago.edu/students/financial-aid/fellowships>) and UChicagoGrad (<https://grad.uchicago.edu/admissions>). Further information on the registration for the language exam (for which a High Pass is required) can be found at the Office of Language Assessment. (<http://languageassessment.uchicago.edu/page/academic-reading-comprehension-assessment>)

DISSERTATION

Before entering candidacy, students will be asked to present and discuss their dissertation proposals at a proposal hearing attended by their dissertation committee and other interested faculty. After entering candidacy, students will participate in a colloquium, normally in the fifth quarter after their admission to candidacy, in which they will discuss with their dissertation committee the current state of the dissertation and outline

their plans and schedule for further progress. Students are strongly urged to join appropriate workshops and present dissertation chapters on a regular basis to such workshops. After satisfying the above requirements, the candidate is expected to pursue independent research under the direction of a member of the faculty culminating in the writing of a doctoral dissertation. Candidates conclude their studies by successfully defending their dissertation in a final oral examination.

For additional information about the Comparative Literature program, please see <http://complit.uchicago.edu/>.

APPLICATION

The department requires a writing sample of no more than 25 pages, usually a critical essay written during the student's college years.

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions>

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552. Our application process is entirely online. Please do not send any materials in hard copy. All materials should be submitted through the online application (<http://humanities.uchicago.edu/students/admissions/apply-now>).

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu/>, or call them at (773) 702-7752.

COMPARATIVE LITERATURE COURSES

CMLT 34104. Representing Revolutions. 100 Units.

TBD

Instructor(s): Larry Rothfield Terms Offered: Spring

Equivalent Course(s): ENGL 24114, CMLT 24104, ENGL 34114

CMLT 34111. The Soviet Empire. 100 Units.

What kind of empire was the Soviet Union? Focusing on the central idea of Eurasia, we will explore how discourses of gender, sexuality and ethnicity operated under the multinational empire. How did communism shape the state's regulation of the bodies of its citizens? How did genres from the realist novel to experimental film challenge a cohesive patriarchal, Russophone vision of Soviet Eurasia? We will examine how writers and filmmakers in the Caucasus and Central Asia answered Soviet Orientalist imaginaries, working through an interdisciplinary archive drawing literature and film from the Soviet colonial 'periphery' in the Caucasus and Central Asia as well as writings about the hybrid conception of Eurasia across linguistics, anthropology, and geography.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): NEHC 24110, REES 24110, CRES 34111, NEHC 34110, REES 34110, CMLT 24111, CRES 24111

CMLT 34272. The Ancestral. 100 Units.

Recent work in history and anthropology has stressed the need for deeper models of origins and relations, perhaps even dispensing with "prehistory" as an alternative to more familiar forms of historical self-understanding. This class will look at how the ancestral in literature imagines such deep forms of historical belonging, staging modes of revenge whose cryptic vitalism challenges the phenomenological basis of new materialism. Readings will include Martin Heidegger, Ronald Hutton, Ethan Kleinberg, Quentin Meillassoux, Hans Ruin, and Anna Tsing, poetry by Li He and Osip Mandelstam, weird fiction by H. P. Lovecraft, Arthur Machen and Algernon Blackwood, and futurology by Cicely Hamilton, Jean Hegland, Sarah Moss, and Will Self.

Instructor(s): Mark Payne Terms Offered: Winter

Equivalent Course(s): SCTH 34272, CMLT 24272

CMLT 35020. Culture and Zionism. 100 Units.

This seminar will examine the intersection of culture and Zionism. We will begin by considering the historical formation referred to as "cultural Zionism" and examining its ideological underpinnings. Other topics include: Hebrew revival, the role of culture in the Zionist revolution, Israeli culture as Zionist culture. Readings include: Ahad Haam, Haim Nahman Bialik, S.Y. Agnon, Orly Kastel-Blum, Edward Said, Benjamin Harshav.

Instructor(s): Na'ama Rokem Terms Offered: Autumn

Equivalent Course(s): NEHC 35020, JWSC 25020, NEHC 25020, CMLT 25020, HIJD 35020

CMLT 35025. Gender and Translation. 100 Units.

The course will consider translation -- both theory and practice -- in relation to queer studies and gender and women's studies. Authors will include Naomi Seidman, Monique Balbuena, Yevgeniy Fiks, Raquel Salas Rivera, Kate Briggs, and others. For the final essay, students may write a research paper or translation project.

Instructor(s): Anna Elena Torres Terms Offered: Winter

Equivalent Course(s): REES 35025, GNSE 35025, CMLT 25025, REES 25025, GNSE 25025

CMLT 36311. Global Speculative Fiction. 100 Units.

This course examines literary and cinematic works of speculative fiction in a comparative context. An expansive genre that encompasses science fiction, fantasy, magic realism, horror, as well as utopian and dystopian literature, speculative fiction envisions alternate, parallel, possible, or imagined worlds. These worlds often exhibit characteristics such as: scientific and technological advancements; profound social, environmental, or political transformations; time or space travel; life on other planets; artificial intelligence; and evolved, hybrid, or new species. The course reflects on how these texts and films reimagine the past and the present in order to offer radical visions of desirable or undesirable futures. To that end, we will consider how this genre interrogates existential questions about what it means to be human, the nature of consciousness, the relationship between mind/body, thinking/being, and self/other, as well as planetary concerns confronting our species. Literary and cinematic works will be paired with theoretical readings that critically frame speculative and science fiction in relation to questions of gender, race, class, colonialism, bio-politics, human rights, as well as environmental and social justice. In addition to exploring speculative fiction as a way of reading and interpreting the universe, we will examine its generic and aesthetic qualities across a variety of subgenres (Afrofuturism, cyberpunk, steampunk, climate fiction).

Instructor(s): Hoda El Shakry Terms Offered: Winter

Equivalent Course(s): CMLT 26311

CMLT 36660. The Rise of the Global New Right. 100 Units.

This course traces the intellectual genealogies of the rise of a Global New Right in relation to the contexts of late capitalist neoliberalism, the fall of the Soviet Union, as well as the rise of social media. The course will explore the intertwining political and intellectual histories of the Russian Eurasianist movement, Hungarian Jobbik, the American Traditional Workers Party, the French GRECE, Greek Golden Dawn, and others through their published essays, blogs, vlogs and social media. Perhaps most importantly, the course asks: can we use f-word (fascism) to describe this problem? In order to pose this question we will explore the aesthetic concerns of the New Right in relation to postmodern theory, and the affective politics of nationalism. This course thus frames the rise of a global new right interdisciplinary and comparatively as a historical, geopolitical and aesthetic problem.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): REES 36661, CMLT 26660, ENGL 26660, CRES 26660, ENGL 36661, REES 26660, SIGN 26050, CRES 36660

CMLT 37512. Dream of the Red Chamber: Forgetting About the Author. 100 Units.

The great Chinese-Manchu novel *Honglou meng* (ca. 1750) has been assigned one major author, Cao Xueqin, whose life has been the subject of much investigation. But before 1922 little was known about Cao, and interpreters of the novel were forced to make headway solely on the basis of textual clues. The so-called "Three Commentators" edition (*Sanjia ping Shitou ji*) shows these readers at their creative, polemical, and far-fetched best. We will be reading the first 80 chapters of the novel and discussing its reception in the first 130 years of its published existence (1792-1922), with special attention to hermeneutical strategies and claims of authorial purpose. Familiarity with classical Chinese required.

Instructor(s): Haun Saussy Terms Offered: Spring

Prerequisite(s): Familiarity with classical Chinese required.

Equivalent Course(s): EALC 37512, CMLT 27512, SETH 37512, FNDL 27512, EALC 27512

CMLT 39120. Renaissance Christian Epic: Tasso, Vida, Milton. 100 Units.

This course will focus upon the two most important Renaissance Christian epics, Torquato Tasso's *La Gerusalemme liberata*/Jerusalem Delivered (first pub. 1581) and John Milton's *Paradise Lost* (first pub. 1667), and two brief Biblical epics, Marco Girolamo Vida's *Christiad* (1535) and Milton's *Paradise Regained* (1671). We will examine these four Renaissance epics as ambitious efforts to revive an ancient and pagan form in order to depict Christian and self-consciously modern visions. We will consider how Renaissance epic poets imitate and emulate both their classical models (primarily Homer's *Iliad* and *Odyssey*, Virgil's *Aeneid*, and Ovid's *Metamorphoses*) and Judeo-Christian sources (primarily the Bible); seek to forge an elevated and appropriate language for epic in Latin, Italian, and English; espouse new visions of the human, the heroic, and gender relations; and adumbrate distinctively modern national, imperial, and global ambitions. All non-English texts will be read in translation, but students who can read Latin or Italian will be encouraged to read the originals.

Instructor(s): Joshua Scodel Terms Offered: Spring

Equivalent Course(s): ENGL 29120, CMLT 29120, ENGL 39120

CMLT 50105. Literary Theory: Auerbach's Mimesis. 100 Units.

This seminar will explore Western literary criticism from Plato to the late eighteenth-century conceived of as a prehistory of comparative literature as a discipline. The course will take as its particular lens the critical treatment of epic in some of the following authors: Plato, Aristotle, Longinus, Horace, Montaigne, Tasso, Gibaldi, Sidney, Boileau, Le Bossu, St. Evremond, Dryden, Addison, Voltaire, Fielding, and Burke. The course will also examine both twentieth-century comparative approaches to epic (e.g., Auerbach, Curtius, Frye) and more recent debates within comparative literature with an eye to continuities and discontinuities in critical method and goals.
 Instructor(s): David Wray Terms Offered: Autumn
 Equivalent Course(s): ENGL 52502

CMLT 39714. North Africa in Literature and Film. 100 Units.

TBD
 Instructor(s): Hoda El Shakry Terms Offered: Spring
 Equivalent Course(s): CMLT 29714

CMLT 50107. Literary Theory: Auerbach's Mimesis. 100 Units.

The focus of this seminar will be Erich Auerbach's *Mimesis*, a book often held up as foundational and paradigmatic for the discipline of comparative literature. Close reading of its twenty chapters together with excerpts from its objects of study (from Homer to Virginia Woolf) will be framed by readings and discussion on the contexts of its production, the history of its reception, the limitations that have been imputed to its presuppositions and biases, and the generative potentials and significances it might continue to make available to the current and future practice of literary comparison.
 Terms Offered: Autumn

CMLT 50201. Seminar on Contemporary Critical Theory: How to think about Literature. 100 Units.

This course will examine some of the salient texts of postmodernism. Part of the question of the course will be the status and meaning of "post"-modern, post-structuralist. The course requires active and informed participation.
 Instructor(s): Thomas Pavel Terms Offered: Winter
 Note(s): Comp Lit core course. 2nd part of sequence.
 Equivalent Course(s): DVPR 50201, RLLT 50201

CMLT 50205. Contemporary Critical Theory 1920-Present. 100 Units.

This course (the second half of the required Comparative Literature introductory sequence) roams the cultural landscape transformed by Freud, Saussure, Shklovsky, the First World War, and the Russian Revolution. Readings from psychoanalytic, formalist and Marxist criticism, from the corresponding heresies, and their successors. The aim throughout is to locate theoretical texts in the polemical situations to which they originally were addressed, and others in which they subsequently were invoked.
 Instructor(s): Haun Saussy Terms Offered: Winter
 Equivalent Course(s): ENGL 50205

CMLT 50300. Catharsis, Tedium, and other Aesthetic Responses. 100 Units.

This seminar examines the ramifications of catharsis, tedium and other forms of aesthetic response, in other words the relationship between effect and affect in and in response to performance, live, mediated and in reading. Beginning with Aristotle and present day responses to catharsis, we will investigate the kinds of aesthetic response invoked by theories of tragedy (esp Hegel), realism (authority, attachment and estrangement in Lukacs, Adorno, Brecht, Benjamin), as well as theories of pleasure (Barthes, Derrida, Cixous) and tedium (Heidegger). We will also explore tedium through text and audio of *The Hunchback Variations* by local playwright Mickle Maher. We will conclude with, the potential and limitations of catharsis as an appropriate response to testimonial narrative in text and film during and after the dictatorship in Chile. An essential part of the discussion will be the problem of translating key theoretical terms, not only from one language to another but also from one theoretical discourse to another.
 Instructor(s): Loren Kruger Terms Offered: Autumn
 Equivalent Course(s): TAPS 50300, ENGL 50301



DEPARTMENT OF EAST ASIAN LANGUAGES AND CIVILIZATIONS

Department Website: <http://ealc.uchicago.edu>

Chair

- Donald Harper
Director of Graduate Studies
- Hoyt Long
Director of Undergraduate Studies
- Judith Zeitlin

Professors

- Michael K. Bourdaghs
- Donald Harper
- James Ketelaar (also with History)
- Haun Saussy (also with Comparative Literature)
- Edward L. Shaughnessy
- Hung Wu (also with Art History)
- Judith Zeitlin

Associate Professors

- Guy S. Alitto (also with History)
- Susan Burns (also with History)
- Paul Copp
- Kyeong Hee Choi
- Jacob Eyferth (also with History)
- Paola Iovene
- Yung-ti Li
- Hoyt Long

Assistant Professors

- Ariel Fox

Senior Lecturers

- Harumi Lory
- Youqin Wang
- Jun Yang

Lecturers

- Satoko Ogura Bourdaghs
- Yoko Katagiri
- Ji Eun Kim
- Yi-Lu Kuo
- Meng Li
- Misa Miyachi
- Wonkyung Na
- Laura Skosey
- Xiaorong Wang
- Shan Xiang

Emeritus Faculty

- George Chih Chao
- Norma Field
- Tetsuo Najita, History

PROGRAM DESCRIPTION

The Department of East Asian Languages and Civilizations is a multidisciplinary department, with faculty specialists in history, art, philosophy, languages, linguistics, literature, and religions, that offers a program of advanced study of the traditional and modern cultures of China, Japan, and Korea. At the same time, students are encouraged to pursue their interests across traditional disciplinary lines by taking courses in other departments in the Divisions of the Social Sciences and the Humanities.

The Department admits applicants only for the Ph.D. degree, and does not offer a terminal M.A. program. Students who arrive with a master's degree will be expected to fulfill the 18-course requirement. Students interested in a terminal M.A. degree should contact the University of Chicago [Master of Arts Program in the Humanities](#) or the [Master of Arts Program in Social Sciences](#).

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

During the first two years, students take nine courses each year. Depending on students' interests and preparation, some of the coursework may take place outside the Department. It may also include work in language, either the primary language of study or a secondary one, whether East Asian or not, as well as in a second East Asian civilization. Many students may also wish to spend one or more years in Japan, China, Taiwan, or Korea to achieve language mastery or do research for their dissertation. Teaching opportunities for students are also available.

After the Ph.D. qualifying exam, which consists of both an oral and written component, acceptance of a dissertation proposal admits a student to candidacy. Students are expected to write and defend dissertations that make original contributions to knowledge. The degree is conferred upon the successful defense of the completed dissertation.

Contact

Dawn Brennan, Department Administrator

Wieboldt Hall, Room 301-E

1050 East 58th Street

Chicago, IL 60637

Phone: 773.702.1255

ealc@uchicago.edu

Website: ealc.uchicago.edu

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions>.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Current minimum scores, etc., are provided with the application. For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu>, or call them at (773) 702-7752.

For additional information about the East Asian Languages and Civilizations program, please see <http://ealc.uchicago.edu> or call (773) 702-1255.

PROGRAM REQUIREMENTS

The requirements are filled in three stages: Masters Degree Requirements (for students entering with or without an M.A. in East Asian Studies), Ph.D. Candidacy Requirements, and Ph.D. Degree Requirements.

MASTER'S DEGREE REQUIREMENTS

1. Complete eighteen courses
 - a. One course should be EALC 65000 Directed Translation, although the translation requirement can be met in other ways.
 - b. No more than two courses taken for an "R" or "P" grade
 - c. Two non-specialization East Asian courses
2. No outstanding Incompletes
3. Courses or Placement at the third year level of one East Asian Language.
4. One M.A. thesis or two M.A. papers

PH.D. CANDIDACY REQUIREMENTS

1. Second East Asian Language
2. Mastery of Languages required for primary research
3. Proficiency in any additional languages required for research
4. Pass PhD Qualifying Exams
5. Defense and approval of Dissertation Proposal

Once the student has passed the dissertation proposal defense, the Department will certify that the student has met all the requirements for Admission to Candidacy (all requirements for degree with the exception of the dissertation). The Department will submit paperwork to the Office of the Dean of Students that recommends that the student be admitted to candidacy for the PhD degree.

PH.D. DEGREE REQUIREMENTS

1. Admission to Ph.D. Candidacy
2. Approval and Defense of the Dissertation

JOINT PH.D. PROGRAM IN EAST ASIAN CINEMA

The Program in Cinema and Media Studies and the Department of East Asian Languages and Civilizations have formed a joint Ph.D. program in East Asian cinema at the University of Chicago. The University has long-standing engagement with both Film and East Asian studies and has already graduated a number of scholars who are changing the field of East Asian cinema around the world. The purpose of this degree program is to provide the best possible training in the methods, languages, and cultural contexts needed to undertake original research on specific topics in East Asian cinema and media studies. Students interested in following this course of study will first apply directly to either the Program in Cinema and Media Studies or to the Department of East Asian Languages and Civilizations.

You can see up-to-date course listings at our website, ealc.uchicago.edu, or on the registrar's Times Schedules at <http://timeschedules.uchicago.edu/>.

EALC COURSES

EALC 34090. Japanese Woodblock Prints: From 1660 to the Present. 100 Units.

Despite the availability of moveable type, woodblock printing—in which each printed sheet was produced by an intricately hand-carved block—was the main reproductive technology in early modern Japan (roughly 1600 to 1850) for both texts and images. In these years, Japan's high literacy rates and booming urban publishing industry gave rise to an array of fascinating illustrated books and prints—from theater ephemera and guidebooks to "art" prints, landscape series, and supernatural tales—that offer interesting points of comparison with early modern printing in the West. Drawing on a recent exhibition at the Smart Museum, this course will consider Japanese woodblock prints as artistic and social objects during the seventeenth through nineteenth centuries. While viewing actual prints in area collections, we will discuss style and technique, the representation of class and gender, the world of the pleasure quarters, illustrated plays and fiction, urban growth and travel, censorship, and the supernatural.

Instructor(s): C. Foxwell Terms Offered: Spring

Equivalent Course(s): ARTH 34090, ARTH 24090, EALC 24090

EALC 34627. Allure of Matter: Material Art in China. 100 Units.

This seminar examines contemporary art in China through the lens of the Smart Museum of Art's upcoming exhibition, *The Allure of Matter: Material Art in China*. Using works in the exhibition as case studies, the course explores questions about materials and materiality in contemporary art. Throughout the course, we will address the following questions: How have unconventional materials impacted art practices in China? How do these material explorations inform our understanding of contemporary art in China and beyond? How do materials mediate different relationships between the artist, artwork and viewer? Guest speakers, including conservators, will expand our discussions of materiality. The course will meet for approximately half of the time at the Smart Museum or Wrightwood 659.

Instructor(s): O. Cacchione Terms Offered: Winter

Prerequisite(s): Students who have taken a course in modern or contemporary art history preferred.

Equivalent Course(s): ARTH 34626, EALC 24627, ARTH 24626

EALC 35306. Gender and Modernity in East Asia. 100 Units.

What are the salient forms, manifestations, and performances found at the intersections of gender and modernities in East Asia? This seminar aims at identifying the characteristics of modern gendering that East Asians experienced in the first half of the twentieth. It aims to generating a broad discussion on the form and patterns of "new" cultural experiences that came to shape themselves under the hegemony of Western modernities outside as well as those of "old" counterparts. While considering the shared questions of modernized gender, gendered consciousness, and personal/private spaces, discussions will respond to the diverse interests, backgrounds, and initiatives of student participants so as to best facilitate comparative and theoretical discussions on gender and modernity in East Asia.

Instructor(s): K. Choi Terms Offered: Autumn

Equivalent Course(s): GNSE 25601, EALC 25306, GNSE 35601

EALC 35415. Poetry and its Powers in Early China: Explorations in Poetic, Prophetic, and Philosophical Verse. 100 Units.

This course will survey the religious, political, and magical powers of verse during the development of literary and intellectual traditions in early China (~10th to ~1st c. BCE). Much of our time will be devoted to two major compendia of poetry: 1) the *Shijing* ##, (Classic of Odes; Book of Songs), a compilation of ancient song lyrics that was allegedly compiled by Confucius (~500 BCE); and 2) the *Chu ci* ## (Elegies of Chu; Songs of the South), an anthology of pre-imperial songs traditionally attributed to Qu Yuan ##, a spurned official who served in the southern state of Chu # during the fourth century BCE. Reading ability in Chinese is not a pre-requisite for the course, and we will work from English translations. Many of the texts we will read are archaic and difficult, and since translations are all imperfect, we will sometimes refer to more than one. This will help us to better triangulate the meaning of the text, to discover areas where interpreters diverge in their understanding, and to consider the pros and cons of different strategies of translation.

Instructor(s): D. Lebovitz Terms Offered: Autumn

Equivalent Course(s): EALC 25415

EALC 35709. Picturing Moral Autonomy in China and Elsewhere. 100 Units.

This course examines how intellectuals in Preindustrial China maintained their independence, as well as their moral compass, in times of inordinate social and political pressure. Systematic thinking on this topic appears early in China, beginning with Confucius and Mencius, but was by no means limited to the Confucian tradition. Zhuangzi (late 4th c. BCE) devoted an entire chapter to the problem. This course will survey some important meditations on the topic from the Classical period, but will focus on the Song dynasty (960-1278) with its rich body of essays, poems, and paintings touching upon the problem of moral autonomy. To supplement our study of primary sources we'll read secondary sources on Song law, society, and government, as well as relevant secondary studies of European art. Later in the course we will read reflections on Song period Chinese essays by English radicals of the 18th century, and will wrap up with American classics by Henry David Thoreau, Ralph Waldo Emerson, and Wendell Berry. Along the way we will learn how to conduct "close readings" of both written and visual materials for clues to the deep, humanistic themes underlying artistic choice.

Instructor(s): M. Powers Terms Offered: Autumn

Equivalent Course(s): EALC 25709, ARTH 35709, ARTH 25709

EALC 38702. Tales Retold? Modern & Contemporary Chinese Art. 100 Units.

Owing to its revolutionary transformations spanning the 20th and early 21st centuries, China offers a unique access point to exploring key issues in modern and contemporary art. Modern and contemporary artists from China and the Sinophone world have long confronted rather entrenched double-binds, crises of consciousness. We might consider this a double consciousness, on their part-consciousness of being artists in a globalizing context, on the one hand; of being political or national subjects, on the other. Organized thematically, this class will examine selections of artists, movements, and the discourses surrounding them, to unpack the mutual interrelation of key concepts, art and scholarly practices. Questions to be addressed include: How does art history and criticism currently deal with modern and contemporary Chinese art? How does the art world define this category of art practice; and vice versa, how do artists view the art world? Case studies will include artists practicing today as well as historical artists whose work has become a source for the present. While the class deals primarily with art in China, it will necessarily address the wider issues of globalization and the international institutional networks of contemporary art. Students will be encouraged to think broadly about comparative and inter-Asia relations, rather than dividing the globe into East and West.

Instructor(s): J. Lee Terms Offered: Spring

Equivalent Course(s): EALC 28702, ARTH 28702, ARTH 38702

EALC 41005. Early Chinese Texts and Sociological Research. 100 Units.

The use of texts for sociological and cultural inquiry. This year the seminar addresses the theoretical and methodological issues arising from popular culture studies, manuscript culture studies, and the "New Philology."

Instructor(s): Donald Harper Terms Offered: Autumn

Prerequisite(s): Consent only

EALC 43000. Censorship in East Asia: The Case of Colonial Korea. 100 Units.

This course examines the operation and consequences of censorship in the Japanese Empire, with focus on its effects in colonial Korea. It begins with two basic premises: first, both the Japanese colonial authorities' measures of repression, and the Korean responses to them, can be understood as noticeably more staunch and sophisticated when compared to any other region of the Empire; and second, the censorship practices in Korea offers itself as a case that is in itself an effective point of comparison to better understand other censorship operations in general and the impact of these operations across different regions. With a view to probing an inter- and intra-relationship between censorship practices among a variety of imperial/colonial regions, this course studies the institutions related to censorship, the human agents involved in censorship-both external and internal-and texts and translations that were produced in and outside of Korea, and were subject to censorship. Overall, the course stresses the importance of establishing a comparative understanding of the functions of censorship, and on the basis of this comparative thinking we will strive to conceptualize the characteristics of Japanese colonial censorship in Korea.

Instructor(s): K. Choi Terms Offered: Autumn

Equivalent Course(s): EALC 23001, MAAD 16001, CRES 33001

EALC 44612. Inequalities in Chinese Literature and Media. 100 Units.

In this class we will explore how the various forms and dimensions of inequality that characterize contemporary China are reflected in literature, cinema, and internet. We will engage with concepts of subalternity, peasant worker, and new working class, and investigate emerging spaces of self-representation. Readings in Chinese and English. Ample time will be devoted to students' research projects.

Instructor(s): P. Iovene Terms Offered: Autumn

Prerequisite(s): Knowledge of modern Chinese

Note(s): Open to undergraduates.

Equivalent Course(s): EALC 22612

EALC 44914. Japanese Modernism(s) 100 Units.

This course examines Japanese modernism as a body of aesthetic works and as an object of scholarly study. On the one hand, we explore the many faces of modernism through the writings and images of those most typically associated with this moment in Japanese cultural history. Fiction by Kawabata Yasunari, Yokomitsu Riichi, and Ito Sei; poetry by Anzai Fuyue, Hagiwara Kyojiro, and Kitasono Katsue; images by Murayama Tomoyoshi and Kinugasa Teinosuke, among others. But we also consider the many methodologies by which modernism has been constituted as an analytical object: as artistic style, as formal innovation, as authorial strategy, as ideological stance, as media phenomenon, as product of colonial relations, as transnational movement, and as sociological event. Combining a reading of original texts with a survey of modernist studies as an evolving discipline, we will seek to understand Japanese modernism at the level of text, author, anthology, social collective, material medium, public performance, and database.

Instructor(s): H. Long Terms Offered: Winter

Prerequisite(s): Requires advanced reading ability in Japanese. Undergraduates interested in taking the course should contact the instructor.

EALC 45405. The Leftover Zhou Documents. 100 Units.

In this graduate reading course, we will focus on the Yi Zhou shu or Leftover Zhou Documents, supposed to be a collection of documents that Confucius did not include in the classic Shang shu or Documents on High. We will study the text as a whole, and also sample individual chapters from different parts of the text and from different historical contexts, including especially texts for which there are now bamboo-slip manuscripts. Students should have a good command of classical Chinese.

Instructor(s): E. Shaughnessy Terms Offered: Spring

Prerequisite(s): Knowledge of classical Chinese

EALC 46610. Rethinking Meiji Literature: Historicizing Modernity. 100 Units.

This course will survey recent scholarship, in both English and Japanese, on literature of the Meiji period (1868-1912). We will read a number of recent studies of the period by both Japanese and Anglophone scholars. We will also read several works of Meiji poetry and fiction in the original Japanese. Among the topics we will focus on are gender and sexuality, imperialism, the rise of modern media, and the invention of new writing styles and national language. Readings will be in English and Japanese.

Instructor(s): M. Bourdagh Terms Offered: Spring

Prerequisite(s): Advanced reading ability in Japanese

EALC 48010. Archaeology of Anyang: Bronzes, Inscriptions, and World Heritage. 100 Units.

Anyang is one of the most important archaeological sites in China. The discoveries of inscribed oracle bones, the royal cemetery, clusters of palatial structures, and industrial-scale craft production precincts have all established that the site was indeed the last capital of the Shang dynasty recorded in traditional historiography. With almost continuous excavations since the late 1920s, work at Anyang has in many ways shaped and defined Chinese archaeology and the study of Early Bronze Age China. This course intends to examine the history of research, important archaeological finds, and the role of Anyang studies in the field of Chinese archaeology. While the emphasis is on archaeological finds and the related research, this course will also attempt to define Anyang in the modern social and cultural contexts in terms of world heritage, national and local identity, and the looting and illegal trade of antiquities.

Instructor(s): Y. Li Terms Offered: Winter

Note(s): Open to undergraduates with consent of instructor

Equivalent Course(s): ANTH 36765, ANTH 26765, EALC 28010

EALC 48015. Archaeology of Bronze Age China. 100 Units.

"Bronze Age" in China conventionally refers to the time period from ca. 2000 BC to about 500 BC, during which bronze, an alloy of copper and other metals such as tin and lead, was the predominant medium used by the society, or to be more precise, the elite classes of the society. Bronze objects, in the forms of vessels, weapons, and musical instruments, were reserved for the upper ruling class of the society and were used mostly as paraphernalia during rituals and feasting. "Bronze Age" in China also indicates the emergence and eventual maturation of states with their bureaucratic systems, the presence of urban centers, a sophisticated writing system, and advanced craft producing industries, especially metal production. This course surveys the important archaeological finds of Bronze Age China and the theoretical issues such as state formation, craft production, writing, bureaucratic systems, urbanization, warfare, and inter-regional interaction, etc. It emphasizes a multi-disciplinary approach with readings and examples from anthropology, archaeology, art history, and epigraphy. This course will also visit the Smart Museum, the Field Museum, and the Art Institute of Chicago to take advantage of the local collections of ancient Chinese arts and archaeology.

Instructor(s): Y. Li Terms Offered: Spring

Equivalent Course(s): EALC 28015, ANTH 26760, ANTH 46760

EALC 50700. Japanese Literary Theory and Criticism. 100 Units.

This course provides students with an introduction to the practice of modern Japanese literary theory and criticism. We will read seminal works of criticism in their original language, highlighting one key text per decade across the 20th century and pairing each with related criticism produced outside Japan. Critics studied include Natsume Soseki, Nakamura Mitsuo, Ito Sei, Maeda Ai, Karatani Kojin, and Komori Yoichi. While the course offers a longitudinal survey of how theory and criticism have evolved in Japan across the modern period, it also puts this work into dialogue with the evolving global exchange of ideas about how and why we read literature.

Instructor(s): H. Long Terms Offered: Winter

Prerequisite(s): Knowledge of modern Japanese

EALC 51420. The Literary and Visual Worlds of Xixiang ji. 100 Units.

This course examines the most influential Chinese drama of all times, the Xixiang ji (Romance of the Western Chamber) in light of its multiple literary and visual traditions. Over 100 different woodblock editions, many of them illustrated, were published during the Ming and Qing dynasties alone. The focus of the class will be on close readings of the original texts in classical and early modern vernacular Chinese. We will concentrate on the earliest extant edition of 1498 and Jin Shengtan's annotated and abridged edition of 1656, along with important sets of woodblock illustrations of the play.

Instructor(s): J. Zeitlin Terms Offered: Autumn

Prerequisite(s): Good reading skills in both classical and vernacular Chinese. Instructor's permission required.

Equivalent Course(s): TAPS 51420

EALC 56155. Archaeological Approaches to Early China. 100 Units.

This course will examine the formation of cultures and societies in ancient China from the Neolithic period (beginning ca. 8000 B.C.E.) through the establishment of the Han Dynasty (206 B.C.E.-220 C.E.). Throughout the course we will focus particularly on recent archaeological discoveries in China and the ways they produce and challenge new and existing knowledge about the past. We will examine how (pre)historical origins and transitions are conceived and the limits and strengths posed by the material record, paying particular attention to the development and shifts in archaeological epistemologies with respect to the material record. In addition to covering major political developments, we will pay close attention to religious, intellectual, and social trends, as well as to changes in the material culture of ancient China. Topics which we will strive to think through include (1) time/change, (2) local/regional, (3) classification, (4) culture/identity, (5) nature/adaptation, (6) meaning/symbol, (7) action/agency, and (9) power/ideology.

Instructor(s): Alice Yao, Yung-ti Li Terms Offered: Winter. Winter 2020

Prerequisite(s): Undergraduates require consent of instructor

Equivalent Course(s): ANTH 56155

EALC 58011. Archaeology of Craft Production: Theories and Case Studies. 100 Units.

The course will review anthropological literature and case studies of craft production and craft specialization in ancient civilizations. It also takes a multi-disciplinary approach by adopting perspectives developed in history and art history. Topics discussed in the course include organization of production, craft production and the elite, chaîne opératoire, status and identity of artisans, and political economy and craft production. Students are expected to become familiar with prevalent theoretical discussions and are encouraged to apply, adopt, or revise them in order to analyze examples of craft production of their own choice.

Instructor(s): Y. Li Terms Offered: Spring

Note(s): Undergrads upper division only with permission from instructor

Equivalent Course(s): ANTH 58011

EALC 59700. Thesis Research. 100 Units.

For course description contact East Asian Languages.

Terms Offered: Autumn

Prerequisite(s): Consent of instructor

EALC 60000. Reading Course. 100 Units.

Independent reading course

Terms Offered: Autumn Spring Winter

Prerequisite(s): Consent of Instructor

EALC 60101. EALC Proseminar: How to Write a Journal Article. 100 Units.

This workshop-style course is designed to help graduate students in EALC transform a previous seminar or research paper into a journal ready article. Topics covered include academic writing; knowing your journal audience; revising and editing; the submission process; and peer-review practices. The course is open to EALC students in any area or discipline who have achieved candidacy.

Instructor(s): H. Long Terms Offered: Spring

Prerequisite(s): Course is open to any EALC graduate student who has achieved candidacy.

EALC 65000. Directed Translation. 100 Units.

Fulfills translation requirement for EALC graduate students. Must be arranged with individual faculty member.

Register by section with EALC faculty.

Terms Offered: Autumn Spring Winter

Prerequisite(s): Consent of instructor

CHINESE COURSES**CHIN 10100-10200-10300. Elementary Modern Chinese I-II-III.**

This three-quarter sequence introduces the fundamentals of modern Chinese. By the end of Spring Quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. In Spring Quarter, students are required to submit a video project for the Chinese Video Project Award. The class meets for five one-hour sessions a week. A drill session with the TA is held one hour a week in addition to scheduled class time. All courses in this sequence must be taken for a quality grade. No auditors permitted. Two sections.

CHIN 10100. Elementary Modern Chinese I. 100 Units.

This three-quarter sequence introduces the fundamentals of modern Chinese. By the end of Spring Quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. In Spring Quarter, students are required to submit a video project for the Chinese Video Project Award. The class meets for five one-hour sessions a week. A drill session with the TA is held one hour a week in addition to scheduled class time. All courses in this sequence must be taken for a quality grade. No auditors permitted.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): Consent of EALC Director of Undergraduate Studies

CHIN 10200. Elementary Modern Chinese II. 100 Units.

Part 2 of this three-quarter sequence introduces the fundamentals of modern Chinese. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for five one-hour sessions each week. Additional small group discussions of 40 minutes per week will be arranged. Maximum enrollment for each section is 18.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): CHIN 10100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 10300. Elementary Modern Chinese III. 100 Units.

Part 3 of this three-quarter sequence introduces the fundamentals of modern Chinese. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for five one-hour sessions each week. Additional small group discussions of 40 minutes per week will be arranged. Maximum enrollment for each section is 18.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CHIN 10200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

Equivalent Course(s): CHIN 33300

CHIN 10200. Elementary Modern Chinese II. 100 Units.

Part 2 of this three-quarter sequence introduces the fundamentals of modern Chinese. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for five one-hour sessions each week. Additional small group discussions of 40 minutes per week will be arranged. Maximum enrollment for each section is 18.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): CHIN 10100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 10300. Elementary Modern Chinese III. 100 Units.

Part 3 of this three-quarter sequence introduces the fundamentals of modern Chinese. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for five one-hour sessions each week. Additional small group discussions of 40 minutes per week will be arranged. Maximum enrollment for each section is 18.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CHIN 10200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

Equivalent Course(s): CHIN 33300

CHIN 11100-11200-11300. First-Year Chinese for Bilingual Speakers I-II-III.

This three-quarter series is intended for bilingual speakers of Chinese. Our objectives include teaching students standard pronunciation and basic skills in reading and writing, while broadening their communication skills for a wider range of contexts and functions. The class meets for three one-hour sessions a week. Consultation with instructor encouraged prior to enrollment. All courses in this sequence must be taken for a quality grade.

CHIN 11100. First-Year Chinese for Heritage Students I. 100 Units.

Part 1 of this three-quarter sequence introduces the fundamentals of modern Chinese to bilingual speakers. Bilingual Speakers are those who can speak Chinese but do not know how to read or write. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for three one-hour sessions each week MWF. Must be taken for a letter grade. No auditors permitted.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): Consent of Director of Chinese Language Program

CHIN 11200. First-Year Chinese for Heritage Students-II. 100 Units.

Part 2 of this three-quarter sequence introduces the fundamentals of modern Chinese to bilingual speakers. Bilingual Speakers are those who can speak Chinese but do not know how to read or write. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for three one-hour sessions each week MWF.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): CHIN 11100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 11300. First-Year Chinese for Heritage Students-III. 100 Units.

Part 3 of this three-quarter sequence introduces the fundamentals of modern Chinese to bilingual speakers. Bilingual Speakers are those who can speak Chinese but do not know how to read or write. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for three one-hour sessions each week MWF.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CHIN 11200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 1200. First-Year Chinese for Heritage Students-II. 100 Units.

Part 2 of this three-quarter sequence introduces the fundamentals of modern Chinese to bilingual speakers. Bilingual Speakers are those who can speak Chinese but do not know how to read or write. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for three one-hour sessions each week MWF.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): CHIN 11100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 11300. First-Year Chinese for Heritage Students-III. 100 Units.

Part 3 of this three-quarter sequence introduces the fundamentals of modern Chinese to bilingual speakers. Bilingual Speakers are those who can speak Chinese but do not know how to read or write. By the end of the spring quarter, students should have a basic knowledge of Chinese grammar and vocabulary. Listening, speaking, reading, and writing are equally emphasized. Accurate pronunciation is also stressed. A video project is required in spring quarter, which will be entered in the competition for the Chinese Video Project Award. Class meets for three one-hour sessions each week MWF.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CHIN 11200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 15000. Chinese in Beijing. 100 Units.**CHIN 20100-20200-20300. Intermediate Modern Chinese I-II-III.**

The goal of this sequence is to enhance students' reading, listening, speaking, and writing skills by dealing with topics at an intermediate linguistic level. In addition to mastering the content of the textbook, students are required to complete two language projects each quarter. Chinese computing skills are also taught. The class meets for five one-hour sessions a week. All courses in this sequence must be taken for a quality grade. No auditors permitted. Two sections.

CHIN 20100. Intermediate Modern Chinese I. 100 Units.

Part 1 of this sequence aims to enhance students' reading, listening, speaking, and writing skills by dealing with topics at an intermediate linguistic level. In addition to mastering the content of the textbook, students are required to complete two language projects each quarter. Chinese computing skills are also taught. Class meets for five one-hour sessions each week.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): CHIN 10300, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 20200. Intermediate Modern Chinese II. 100 Units.

Part 2 of this sequence aims to enhance students' reading, listening, speaking, and writing skills by dealing with topics at an intermediate linguistic level. In addition to mastering the content of the textbook, students are required to complete two language projects each quarter. Chinese computing skills are also taught. Class meets for five one-hour sessions each week.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): CHIN 20100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 20300. Intermediate Modern Chinese III. 100 Units.

Part 3 of this sequence aims to enhance students' reading, listening, speaking, and writing skills by dealing with topics at an intermediate linguistic level. In addition to mastering the content of the textbook, students are required to complete two language projects each quarter. Chinese computing skills are also taught. Class meets for five one-hour sessions each week.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CHIN 20200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

Equivalent Course(s): CHIN 34300

CHIN 20200. Intermediate Modern Chinese II. 100 Units.

Part 2 of this sequence aims to enhance students' reading, listening, speaking, and writing skills by dealing with topics at an intermediate linguistic level. In addition to mastering the content of the textbook, students are required to complete two language projects each quarter. Chinese computing skills are also taught. Class meets for five one-hour sessions each week.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): CHIN 20100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

CHIN 20300. Intermediate Modern Chinese III. 100 Units.

Part 3 of this sequence aims to enhance students' reading, listening, speaking, and writing skills by dealing with topics at an intermediate linguistic level. In addition to mastering the content of the textbook, students are required to complete two language projects each quarter. Chinese computing skills are also taught. Class meets for five one-hour sessions each week.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CHIN 20200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

Equivalent Course(s): CHIN 34300

CHIN 31100-31200-31300. Business Chinese I-II-III.

This three-quarter sequence aims at improving overall language skills and introduces business terminology. Students learn about companies and their services and/or products, the stock market, real estate market, insurance, and e-commerce. The class meets for three ninety-minute sessions a week.

CHIN 31100. Business Chinese I. 100 Units.

Part one of this three-quarter sequence aims at improving overall language skills and introduces business terminology. Students will learn about companies and their services and/or products, the stock market, real estate market, insurance, and e-commerce. Class meets for five one-hour sessions each week.

Terms Offered: Autumn

Prerequisite(s): CHIN 20300, or placement, or consent of instructor

Equivalent Course(s): CHIN 20701

CHIN 31200. Business Chinese II. 100 Units.

Terms Offered: Winter

Prerequisite(s): CHIN 20701, or CHIN 31100, or placement, or consent of instructor

Equivalent Course(s): CHIN 20702

CHIN 31300. Business Chinese III. 100 Units.

Terms Offered: Spring

Prerequisite(s): CHIN 20702, or CHIN 31200, or placement, or consent of instructor

Equivalent Course(s): CHIN 20703

CHIN 31200. Business Chinese II. 100 Units.

Terms Offered: Winter

Prerequisite(s): CHIN 20701, or CHIN 31100, or placement, or consent of instructor

Equivalent Course(s): CHIN 20702

CHIN 31300. Business Chinese III. 100 Units.

Terms Offered: Spring

Prerequisite(s): CHIN 20702, or CHIN 31200, or placement, or consent of instructor

Equivalent Course(s): CHIN 20703

CHIN 20800-20900-21000. Elementary Literary Chinese I-II-III.

This sequence introduces the basic grammar of the written Chinese language from the time of the Confucian Analects to the literary movements at the beginning of the twentieth century. Students will read original texts of genres that include philosophy, memorials, and historical narratives. Spring Quarter is devoted exclusively to reading poetry. The class meets for two eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

CHIN 20800. Elementary Literary Chinese I. 100 Units.

Introduction to the Chinese literary language from the first millennium B.C.E. to the end of the imperial period. While surveying a variety of literary genres (such as, philosophical and historical texts, poetry, and essays), focus is on grammatical structures and translation methods.

Instructor(s): L. Skosey Terms Offered: Autumn

Prerequisite(s): CHIN 20300, or placement, or consent of instructor. Auditing is not permitted. Must be taken for a quality grade.

CHIN 20900. Advanced Readings in Literary Chinese-II. 100 Units.

Introduction to the Chinese literary language from the first millennium B.C.E. to the end of the imperial period. While surveying a variety of literary genres (such as, philosophical and historical texts, poetry, and essays), focus is on grammatical structures and translation methods.

Instructor(s): L. Skosey Terms Offered: Winter

Prerequisite(s): CHIN 20800, or placement, or consent of instructor. Auditing is not permitted. Must be taken for a quality grade.

Equivalent Course(s): CHIN 30900

CHIN 21000. Elementary Literary Chinese III. 100 Units.

Introduction to the Chinese literary language from the first millennium B.C.E. to the end of the imperial period. While surveying a variety of literary genres (such as, philosophical and historical texts, poetry, and essays), focus is on grammatical structures and translation methods.

Instructor(s): L. Skosey Terms Offered: Spring

Prerequisite(s): CHIN 20900, or placement, or consent of instructor. Auditing is not permitted. Must be taken for a quality grade.

CHIN 20900. Advanced Readings in Literary Chinese-II. 100 Units.

Introduction to the Chinese literary language from the first millennium B.C.E. to the end of the imperial period. While surveying a variety of literary genres (such as, philosophical and historical texts, poetry, and essays), focus is on grammatical structures and translation methods.

Instructor(s): L. Skosey Terms Offered: Winter

Prerequisite(s): CHIN 20800, or placement, or consent of instructor. Auditing is not permitted. Must be taken for a quality grade.

Equivalent Course(s): CHIN 30900

CHIN 21000. Elementary Literary Chinese III. 100 Units.

Introduction to the Chinese literary language from the first millennium B.C.E. to the end of the imperial period. While surveying a variety of literary genres (such as, philosophical and historical texts, poetry, and essays), focus is on grammatical structures and translation methods.

Instructor(s): L. Skosey Terms Offered: Spring

Prerequisite(s): CHIN 20900, or placement, or consent of instructor. Auditing is not permitted. Must be taken for a quality grade.

CHIN 60000. Rdg Crse: Spec Topic Chinese. 100 Units.**CHIN 60100. Directed Rdg: Adv Chinese. 100 Units.****JAPANESE COURSES****JAPN 10100-10200-10300. Elementary Modern Japanese I-II-III.**

This is the first year of a three-year program, which is intended to provide students with a thorough grounding in modern Japanese. Grammar, idiomatic expressions, and vocabulary are learned through oral work, reading, and writing in and out of class. Daily practice in speaking, listening, reading, and writing is crucial. Students should plan to continue their language study through at least the second-year level to make their skills practical. The class meets for five fifty-minute sessions a week. All courses in this sequence must be taken for a quality grade. No auditors permitted.

JAPN 10100. Elementary Modern Japanese I. 100 Units.

This is the first year of a three-year program, which is intended to provide students with a thorough grounding in modern Japanese. Grammar, idiomatic expressions, and vocabulary are learned through oral work, reading, and writing in and out of class. Daily practice in speaking, listening, reading, and writing is crucial. Students should plan to continue their language study through at least the second-year level to make their skills practical. The class meets for five fifty-minute sessions a week. All courses in this sequence must be taken for a quality grade. No auditors permitted.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): Placement, or consent of instructor

JAPN 10200. Elementary Modern Japanese II. 100 Units.

Must be taken for a letter grade. No auditors permitted. This is the first year of a three-year program designed to provide students with a thorough grounding in Modern Japanese. Grammar, idiomatic expressions, and vocabulary are learned through oral work, reading, and writing in and out of class. Daily practice in speaking, listening, reading and writing is crucial. Students should plan to continue their language study through at least the second-year level to make their skills practical. The class meets for five fifty-minute periods a week.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): JAPN 10100, or placement, or consent of instructor

JAPN 10300. Elementary Modern Japanese-III. 100 Units.

This is the first year of a three-year program designed to provide students with a thorough grounding in Modern Japanese. Grammar, idiomatic expressions, and vocabulary are learned through oral work, reading, and writing in and out of class. Daily practice in speaking, listening, reading and writing is crucial. Students should plan to continue their language study through at least the second-year level to make their skills practical. The class meets for five fifty-minute periods a week.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): JAPN 10200, or placement, or consent of instructor

JAPN 10200. Elementary Modern Japanese II. 100 Units.

Must be taken for a letter grade. No auditors permitted. This is the first year of a three-year program designed to provide students with a thorough grounding in Modern Japanese. Grammar, idiomatic expressions, and vocabulary are learned through oral work, reading, and writing in and out of class. Daily practice in speaking, listening, reading and writing is crucial. Students should plan to continue their language study through at least the second-year level to make their skills practical. The class meets for five fifty-minute periods a week.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): JAPN 10100, or placement, or consent of instructor

JAPN 10300. Elementary Modern Japanese-III. 100 Units.

This is the first year of a three-year program designed to provide students with a thorough grounding in Modern Japanese. Grammar, idiomatic expressions, and vocabulary are learned through oral work, reading, and writing in and out of class. Daily practice in speaking, listening, reading and writing is crucial. Students should plan to continue their language study through at least the second-year level to make their skills practical. The class meets for five fifty-minute periods a week.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): JAPN 10200, or placement, or consent of instructor

JAPN 20100-20200-20300. Intermediate Modern Japanese I-II-III.

The emphasis on spoken language in the first half of the course gradually shifts toward reading and writing in the latter half. Classes conducted mostly in Japanese. The class meets for five fifty-minute sessions a week. All courses in this sequence must be taken for a quality grade. No auditors permitted.

JAPN 20100. Intermediate Modern Japanese I. 100 Units.

The emphasis on spoken language in the first half of the course gradually shifts toward reading and writing in the latter half. The course is conducted mostly in Japanese and meets for five fifty-minute periods a week. Must be taken for a letter grade. No auditors permitted.

Terms Offered: Autumn

Prerequisite(s): JAPN 10300, or placement, or consent of instructor

JAPN 20200. Intermediate Modern Japanese II. 100 Units.

The emphasis on spoken language in the first half of the course gradually shifts toward reading and writing in the latter half. The course is conducted mostly in Japanese and meets for five fifty-minute periods a week.

Terms Offered: Winter

Prerequisite(s): JAPN 20100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade.

JAPN 20300. Intermediate Modern Japanese III. 100 Units.

The emphasis on spoken language in the first half of the course gradually shifts toward reading and writing in the latter half. The course is conducted mostly in Japanese and meets for five fifty-minute periods a week.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): JAPN 20200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

JAPN 20200. Intermediate Modern Japanese II. 100 Units.

The emphasis on spoken language in the first half of the course gradually shifts toward reading and writing in the latter half. The course is conducted mostly in Japanese and meets for five fifty-minute periods a week.

Terms Offered: Winter

Prerequisite(s): JAPN 20100, or placement, or consent of instructor

Note(s): Must be taken for a letter grade.

JAPN 20300. Intermediate Modern Japanese III. 100 Units.

The emphasis on spoken language in the first half of the course gradually shifts toward reading and writing in the latter half. The course is conducted mostly in Japanese and meets for five fifty-minute periods a week.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): JAPN 20200, or placement, or consent of instructor

Note(s): Must be taken for a letter grade. No auditors permitted.

JAPN 21200-21300. Intermediate Modern Japanese through Japanimation I-II.

This sequence focuses on learning spoken Japanese that is aimed at native speakers. Our goals are to get students accustomed to that sort of authentic Japanese and to enable them to speak with high fluency. To keep the balance, writing and reading materials are provided. Students are encouraged to watch videos and practice their speaking.

JAPN 21200. Intermediate Modern Japanese Through Japanimation I. 100 Units.

This course focuses on learning spoken Japanese that is aimed at native speakers. The goals are getting accustomed to that sort of authentic Japanese and being able to speak with a high degree of fluency. To keep a balance, writing and reading materials are provided. Watching videos and practicing speaking are the keys to success in this course.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): JAPN 20100, or placement, or consent of instructor

JAPN 21300. Intermediate Modern Japanese through Japanimation II. 100 Units.

This course focuses on learning spoken Japanese that is aimed at native speakers. The goals are getting accustomed to that sort of authentic Japanese and being able to speak with a high degree of fluency. To keep a balance, writing and reading materials are provided. Watching videos and practicing speaking are the keys to success in this course.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): JAPN 21200, or placement, or consent of instructor

JAPN 21300. Intermediate Modern Japanese through Japanimation II. 100 Units.

This course focuses on learning spoken Japanese that is aimed at native speakers. The goals are getting accustomed to that sort of authentic Japanese and being able to speak with a high degree of fluency. To keep a balance, writing and reading materials are provided. Watching videos and practicing speaking are the keys to success in this course.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): JAPN 21200, or placement, or consent of instructor

JAPN 20401-20402-20403. Advanced Modern Japanese I-II-III.

The third year marks the end of the basic modern language study. Our goal is to help students learn to understand authentic written and spoken materials with reasonable ease. The texts are all authentic materials with some study aids. Classes conducted in Japanese. The class meets for three eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

JAPN 20401. Advanced Modern Japanese I. 100 Units.

The third year marks the end of the basic modern language study. Our goal is to help students learn to understand authentic written and spoken materials with reasonable ease. The texts are all authentic materials with some study aids. Classes conducted in Japanese. The class meets for three eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

Terms Offered: Autumn

Prerequisite(s): JAPN 20300, or placement, or consent of instructor

Equivalent Course(s): JAPN 30100

JAPN 20402. Advanced Modern Japanese II. 100 Units.

The third year marks the end of the basic modern language study. Our goal is to help students learn to understand authentic written and spoken materials with reasonable ease. The texts are all authentic materials with some study aids. Classes conducted in Japanese. The class meets for three eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

Terms Offered: Winter

Prerequisite(s): JAPN 20401, or JAPN 30100, or placement, or consent of instructor

Equivalent Course(s): JAPN 30200

JAPN 20403. Advanced Modern Japanese III. 100 Units.

The third year marks the end of the basic modern language study. The purpose of the course is to help students learn to understand authentic written and spoken materials with reasonable ease. The texts are all authentic materials with some study aids. All work in Japanese. The class meets for three eighty-minute periods a week.

Terms Offered: Spring

Prerequisite(s): JAPN 20402, or JAPN 30200, or placement, or consent of instructor

Equivalent Course(s): JAPN 30300

JAPN 20402. Advanced Modern Japanese II. 100 Units.

The third year marks the end of the basic modern language study. Our goal is to help students learn to understand authentic written and spoken materials with reasonable ease. The texts are all authentic materials with some study aids. Classes conducted in Japanese. The class meets for three eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

Terms Offered: Winter

Prerequisite(s): JAPN 20401, or JAPN 30100, or placement, or consent of instructor

Equivalent Course(s): JAPN 30200

JAPN 20403. Advanced Modern Japanese III. 100 Units.

The third year marks the end of the basic modern language study. The purpose of the course is to help students learn to understand authentic written and spoken materials with reasonable ease. The texts are all authentic materials with some study aids. All work in Japanese. The class meets for three eighty-minute periods a week.

Terms Offered: Spring

Prerequisite(s): JAPN 20402, or JAPN 30200, or placement, or consent of instructor

Equivalent Course(s): JAPN 30300

JAPN 24900. Pre-Modern Japanese: Kindai Bungo I. 100 Units.

This course focuses on the reading of scholarly Japanese materials with the goal of enabling students to do independent research in Japanese after the course's completion. Readings are from historical materials written in the eighteenth and nineteenth centuries.

Terms Offered: Autumn

Prerequisite(s): JAPN 20300 or equivalent, or consent of instructor.

Equivalent Course(s): JAPN 34900

JAPN 20600. Fourth-Year Modern Japanese II. 100 Units.

Open to both undergraduates and graduates. This course is designed to improve Japanese reading, speaking, writing and listening ability to the advanced high level as measured by the ACTFL (American Council on the Teaching of Foreign Languages) Proficiency Guidelines. Weekly assignments will require students to tackle modern Japanese texts of varying length and difficulty. Organized around a range of thought-provoking themes (from brain death and organ transplants to Japanese values on work and religion), reading assignments will include academic theses in psychology and anthropology, literary texts, and popular journalism. After completing the readings, students will be encouraged to discuss each topic in class. Videos/DVDs will be used to improve listening comprehension skills. There will also be writing assignments.

Terms Offered: Winter

Prerequisite(s): JAPN 20500, or JAPN 40500, or placement, or consent of instructor

Equivalent Course(s): JAPN 40600

KOREAN COURSES**KORE 10100-10200-10300. Introduction to the Korean Language I-II-III.**

This introductory sequence is designed to provide a basic foundation in modern Korean language and culture by focusing on the balanced development of the four basic language skills of speaking, listening comprehension, reading, and writing. Students in KORE 10100 begin by learning the complete Korean writing system (Hangul), which is followed by lessons focusing on basic conversational skills and grammatical structures. To provide sufficient opportunities to apply what has been learned in class, there are small group drill sessions, weekly Korean television drama screenings, and a number of other cultural activities (e.g., Korean New Year's game competitions). The class meets for five fifty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

KORE 10100. Introduction to the Korean Language I. 100 Units.

This introductory course is designed to provide beginners with a solid foundation in modern Korean focusing on the balanced development of the four basic language skills of speaking, listening comprehension, reading, and writing. Along with basic conversational and grammatical patterns, the course introduces students to Korean culture through various channels such as Korean movies, music, and a number of other cultural activities. Must be taken for a letter grade.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): Placement, or consent of instructor

KORE 10200. Introduction to the Korean Language II. 100 Units.

Must be taken for a letter grade. This introductory course is designed to provide beginners with a solid foundation in modern Korean focusing on the balanced development of the four basic language skills of speaking, listening comprehension, reading, and writing. Along with basic conversational and grammatical patterns, the course introduces students to Korean culture through various channels such as Korean movies, music, and a number of other cultural activities.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): KORE 10100, or placement, or consent of instructor

KORE 10300. Introduction to the Korean Language III. 100 Units.

Must be taken for a letter grade. This introductory course is designed to provide beginners with a solid foundation in modern Korean focusing on the balanced development of the four basic language skills of speaking, listening comprehension, reading, and writing. Along with basic conversational and grammatical patterns, the course introduces students to Korean culture through various channels such as Korean movies, music, and a number of other cultural activities.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): KORE 10200, or placement, or consent of instructor

KORE 10200. Introduction to the Korean Language II. 100 Units.

Must be taken for a letter grade. This introductory course is designed to provide beginners with a solid foundation in modern Korean focusing on the balanced development of the four basic language skills of speaking, listening comprehension, reading, and writing. Along with basic conversational and grammatical patterns, the course introduces students to Korean culture through various channels such as Korean movies, music, and a number of other cultural activities.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): KORE 10100, or placement, or consent of instructor

KORE 10300. Introduction to the Korean Language III. 100 Units.

Must be taken for a letter grade. This introductory course is designed to provide beginners with a solid foundation in modern Korean focusing on the balanced development of the four basic language skills of speaking, listening comprehension, reading, and writing. Along with basic conversational and grammatical patterns, the course introduces students to Korean culture through various channels such as Korean movies, music, and a number of other cultural activities.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): KORE 10200, or placement, or consent of instructor

KORE 20100-20200-20300. Intermediate Korean I-II-III.

As a continuation of KORE 10100-10200-10300, this sequence is intended to continue to build on students' language skills with an emphasis on enhancing the speaking ability, presentational skills, composition writing skills, and usage of more complex constructions. Approximately 150 Chinese characters are introduced for the achievement of basic literacy and vocabulary expansion. The curriculum also includes media, authentic reading materials, and weekly Korean language table meetings to maximize cultural exposure and opportunities to apply Korean language skills in real life situations. The class meets for five fifty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

KORE 20100. Intermediate Korean I. 100 Units.

As a continuation of KORE 10100-10200-10300, this sequence is intended to continue to build on students' language skills with an emphasis on enhancing the speaking ability, presentational skills, composition writing skills, and usage of more complex constructions. Approximately 150 Chinese characters are introduced for the achievement of basic literacy and vocabulary expansion. The curriculum also includes media, authentic reading materials, and weekly Korean language table meetings to maximize cultural exposure and opportunities to apply Korean language skills in real life situations. The class meets for five fifty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): KORE 10300, or placement, or consent of instructor

KORE 20200. Intermediate Korean II. 100 Units.

As a continuation of Beginning Korean, this course is to help students increase their communication skills (both oral and written) in the Korean language. Through an integrated framework of listening, speaking, reading, and writing, this course aims to increase fluency and accuracy in Korean. Videotapes and additional reading materials will be used in a supplementary fashion and approximately 100 Chinese characters will be introduced for the achievement of basic literacy. Classes are conducted mostly in Korean and meet for fifty-minute periods five times a week. Must be taken for a letter grade.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): KORE 20100, or placement, or consent of instructor

KORE 20300. Intermediate Korean III. 100 Units.

As a continuation of Beginning Korean, this course is to help students increase their communication skills (both oral and written) in the Korean language. Through an integrated framework of listening, speaking, reading, and writing, this course aims to increase fluency and accuracy in Korean. Videotapes and additional reading materials will be used in a supplementary fashion and approximately 100 Chinese characters will be introduced for the achievement of basic literacy. Classes are conducted mostly in Korean and meet for fifty-minute periods five times a week. Must be taken for a letter grade.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): KORE 20200, or placement, or consent of instructor

KORE 20200. Intermediate Korean II. 100 Units.

As a continuation of Beginning Korean, this course is to help students increase their communication skills (both oral and written) in the Korean language. Through an integrated framework of listening, speaking, reading, and writing, this course aims to increase fluency and accuracy in Korean. Videotapes and additional reading materials will be used in a supplementary fashion and approximately 100 Chinese characters will be introduced for the achievement of basic literacy. Classes are conducted mostly in Korean and meet for fifty-minute periods five times a week. Must be taken for a letter grade.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): KORE 20100, or placement, or consent of instructor

KORE 20300. Intermediate Korean III. 100 Units.

As a continuation of Beginning Korean, this course is to help students increase their communication skills (both oral and written) in the Korean language. Through an integrated framework of listening, speaking, reading, and writing, this course aims to increase fluency and accuracy in Korean. Videotapes and additional reading materials will be used in a supplementary fashion and approximately 100 Chinese characters will be introduced for the achievement of basic literacy. Classes are conducted mostly in Korean and meet for fifty-minute periods five times a week. Must be taken for a letter grade.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): KORE 20200, or placement, or consent of instructor

KORE 30100-30200-30300. Advanced Korean I-II-III.

This course introduces a wide selection of authentic reading materials from Korean newspaper articles, college-level textbooks, and literary prose as an entry point to discuss topics and issues in Korean society, culture, and history. The primary objective is further enhancement of advanced reading comprehension, composition writing, and presentational skills. In addition, Chinese character (Hanja) lessons are incorporated into each lesson with the purpose of expanding vocabulary to the advanced level. The class meets for two eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

KORE 30100. Advanced Korean I. 100 Units.

This sequence introduces a wide selection of authentic reading materials from Korean newspaper articles, college-level textbooks, and literary prose as an entry point to discuss topics and issues in Korean society, culture, and history. The primary objective is further enhancement of advanced reading comprehension, composition writing, and presentational skills. In addition, Chinese character (Hanja) lessons are incorporated into each lesson with the purpose of expanding vocabulary to the advanced level. The class meets for two eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

Terms Offered: Autumn

Prerequisite(s): KORE 20300, or placement, or consent of instructor

Equivalent Course(s): KORE 20401

KORE 30200. Advanced Korean II. 100 Units.

For graduates and advanced undergraduates. Must be taken for a letter grade. This course introduces readings from a wide selection of written styles including journalistic pieces, college-level textbooks and literary prose. The class focuses on exercises in reading comprehension and discussions on various topics/issues related to contemporary Korea. Some audio and videotapes (e.g., televised news programs, movies, and dramas) will be used in order to improve the students' capacity in advanced Korean. Classes are conducted in Korean and meet for eighty-minute periods two times a week.

Terms Offered: Winter

Prerequisite(s): KORE 20401, or KORE 30100, or placement, or consent of instructor

Equivalent Course(s): KORE 20402

KORE 30300. Advanced Korean-3. 100 Units.

This course introduces readings from a wide selection of written styles including journalistic pieces, college-level textbooks and literary prose. The class focuses on exercises in reading comprehension and discussions on various topics/issues related to contemporary Korea. Some audio and videotapes (e.g., televised news programs, movies, and dramas) will be used in order to improve the students' capacity in advanced Korean. Classes are conducted in Korean and meet for eighty-minute periods two times a week.

Terms Offered: Spring

Prerequisite(s): KORE 20402, or KORE 30400, or placement, or consent of instructor

Equivalent Course(s): KORE 20403

KORE 30200. Advanced Korean II. 100 Units.

For graduates and advanced undergraduates. Must be taken for a letter grade. This course introduces readings from a wide selection of written styles including journalistic pieces, college-level textbooks and literary prose. The class focuses on exercises in reading comprehension and discussions on various topics/issues related to contemporary Korea. Some audio and videotapes (e.g., televised news programs, movies, and dramas) will be used in order to improve the students' capacity in advanced Korean. Classes are conducted in Korean and meet for eighty-minute periods two times a week.

Terms Offered: Winter

Prerequisite(s): KORE 20401, or KORE 30100, or placement, or consent of instructor

Equivalent Course(s): KORE 20402

KORE 30300. Advanced Korean-3. 100 Units.

This course introduces readings from a wide selection of written styles including journalistic pieces, college-level textbooks and literary prose. The class focuses on exercises in reading comprehension and discussions on various topics/issues related to contemporary Korea. Some audio and videotapes (e.g., televised news programs, movies, and dramas) will be used in order to improve the students' capacity in advanced Korean. Classes are conducted in Korean and meet for eighty-minute periods two times a week.

Terms Offered: Spring

Prerequisite(s): KORE 20402, or KORE 30400, or placement, or consent of instructor

Equivalent Course(s): KORE 20403

KORE 41100. Fourth-Year Modern Korean I. 100 Units.

The first in a series of three consecutive courses focuses on improving speaking, listening, reading, and writing skills to high-advanced level. Through intensive readings and discussions, students will build extensive vocabulary and complex grammatical structures as well as developing sophisticated speaking skills and academic writing skills. The materials introduced in this class include newspaper articles dealing with current social, cultural, or economic issues in Korea, literary works such as poems and novels, and authentic media such as TV documentaries or movies.

Equivalent Course(s): KORE 21100

KORE 41200. Fourth-Year Modern Korean II. 100 Units.

The second of three consecutive courses focuses on improving speaking, listening, reading, and writing skills to high-advanced level. Through intensive readings and discussions, students will build extensive vocabulary and complex grammatical structures as well as developing sophisticated speaking skills and academic writing skills. The materials introduced in this class include newspaper articles dealing with current social, cultural, or economic issues in Korea, literary works such as poems and novels, and authentic media such as TV documentaries or movies.

Equivalent Course(s): KORE 21200



DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

Chair

- Deborah Nelson

Faculty

- Lauren G. Berlant
- Bill Brown
- James K. Chandler
- Maud Ellmann
- Frances Ferguson
- Elaine Hadley
- Loren A. Kruger
- Josephine McDonagh
- William J. T. Mitchell
- Sianne Ngai
- Joshua Keith Scodel
- Kenneth W. Warren
- John Wilkinson
- Adrienne Brown
- Timothy Campbell
- Patrick Jagoda
- Heather Keenleyside
- Ellen MacKay
- John Mark Miller
- Benjamin Morgan
- John H. Muse
- Srikanth Reddy
- Lawrence Rothfield
- Lisa C. Ruddick
- Jennifer Scappettone
- Eric Slauter
- Rachel Galvin
- Edgar Garcia
- Timothy Harrison
- Julie Orlemanski
- Benjamin Saltzman
- Zachary Samalin
- C. Riley Snorton
- Christopher Taylor
- Sonali Thakkar

Emeritus Faculty

- David Bevington
- Elizabeth Helsinger
- Richard Allen Strier
- William Veeder
- Christina von Nolcken

Postdoctoral Fellows

- Lucy Alford
- Sophia Azeb

- Kaneesha Parsard
- Tina Post
- Sarah Johnson

Graduate students in English work with a distinguished faculty of critics and scholars to develop their own interests over a broad range of traditional and innovative fields of research. The program aims to help students attain a wide substantive command of British, American, and other English language literatures. In addition to specializations in the full range of chronologically defined fields, the program includes generous offerings in African American studies, Gender and Sexuality Studies, the Novel, and Media Studies. Students are also trained in textual studies, editing, literary and cultural history, and a variety of critical theories and methodologies. The interests of both faculty and students often carry through to neighboring disciplines like anthropology, sociology, history, art history, linguistics, and philosophy. The University provides a supportive environment for advanced studies of this kind.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The program leading to the Ph.D. degree aims primarily to prepare students for independent work as teachers, scholars, and critics by developing their abilities to pose and investigate problems in the advanced study of literatures in English and in film. Departmental requirements are designed to lead to the doctorate in five to six years. Course work, the preparation of oral fields examinations, workshops, teaching, and the dissertation introduce students to a variety of textual modes, critical methodologies, and historical/cultural problems; provide extensive practice in research, discussion, argument, and writing; and develop pedagogical skills through supervised teaching. While a student's progress will be carefully monitored and periodically evaluated by individual advisors and the department, all students will be accepted into the program on the assumption that they will proceed to the Ph.D.

In the first two years of the Ph.D. program, students are required to enroll in six graduate courses each year. All first-year students also participate in a one-quarter colloquium designed to introduce theoretical and practical questions posed by the study of literature (through readings in a range of theoretical and literary texts). In their third year, students will also take a one quarter course in various approaches to the teaching of literature and composition and a one quarter Advanced Writing Workshop.

Note: Students entering with an M.A. degree in English will be asked to complete at least one year of coursework (six courses) plus two additional courses in their second year, participate in the Autumn Quarter colloquium, and take the one quarter course on teaching in either their second or third years.

Students in their third and fourth years will normally teach at least one quarter-long course each year, initially as course assistants in departmental courses for undergraduates, then as instructors in courses of their own design. Students may also be employed as writing tutors, assistants in introductory humanities and social sciences core courses, instructors in the College Writing Program course in expository writing (which provides its own training in the teaching of composition), or as teachers at other area colleges and universities. The department believes that both training and experience in teaching is an important part of the graduate program.

THE DEGREE OF MASTER OF ARTS

Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study in a number of areas of interest to students, including literature and film. MAPH permits students to take almost all of their courses in the English Department, sharing classes with students in the Ph.D. program. The resulting degree is equivalent to an M.A. in English. Further details about the MAPH program are available at <http://maph.uchicago.edu>.

INQUIRIES

For more information on the department's programs and requirements, please see the Department of English website at <http://english.uchicago.edu> or contact the departmental staff at englishsupport@uchicago.edu.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Humanities is administered through the divisional Office of the Dean of Students. Please visit <http://humanities.uchicago.edu/students/admissions> for further information and instructions on how to apply.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu>, or call them at (773) 702-7752.

ENGLISH LANGUAGE AND LITERATURE COURSES

ENGL 30100. Introduction to Religion and Literature. 100 Units.

Instructor(s): R. Rosengarten, S. Hammerschlag Terms Offered: Winter
Equivalent Course(s): RLST 28210, RLIT 30000

ENGL 30201. Advanced Theories of Gender and Sexuality. 100 Units.

This interdisciplinary seminar-style course will focus on debates within contemporary queer and feminist theory, but the implications impact beyond concepts, with implications for building worlds. We will begin by engaging diverging genealogies of the study of sexual identity, focusing on those developed from within affect theory and theories of performativity. The second half of the quarter will focus on varieties of precarity, examined within their social and political constellations. Generally, our aim will be to engage scenes and concepts central to the interdisciplinary study of gender and sexuality; to provide familiarity with key theoretical anchors for that study; to provide skills for deriving the theoretical bases of any kind of method; to examine inconvenient cases; to question our obligations to the "classics" of gender and sexuality theory; and to explore innovative pedagogies. In addition, aesthetic objects will be brought into contact with theoretical works, such as those by Gayle Rubin, Hortense Spillers, Gayatri Spivak, Paul B. Preciado, Mel Chen, Eve Sedgwick, Judith Butler, and Sadiya Hartman.

Instructor(s): Lauren Berlant Terms Offered: Winter

Equivalent Course(s): PLSC 31410, GNSE 21400, GNSE 31400, MAPH 36500, ENGL 21401, PLSC 21410

ENGL 30228. William Blake: Poet, Painter, and Prophet. 100 Units.

William Blake is arguably the most unusual figure in the history of English poetry and visual art. Recognized now as an essential part of the canon of Romantic poetry, he was almost completely unknown in his own time. His paintings, poems, and illuminated books were objects of fascination for a small group of admirers, but it was not until the late 19th century that his work began to be collected by William Butler Yeats, and not until the 1960s that he was recognized as a major figure in the history of art and literature. Dismissed as insane in his own time, his prophetic and visionary works are now seen as anticipating some of the most radical strands of modern thought, including Freud, Marx, and Nietzsche. We will study Blake's work from a variety of perspectives, placing his poetry in relation to the prophetic ambitions of Milton and his visual images in the European iconographic tradition of Michelangelo and Durer, Goya and Fuseli. The course will emphasize close readings of his lyric poems, and attempt to open up the mythic cosmology of his allegorical, epic, and prophetic books. (Poetry, 1650-1830; Theory; 18th/19th)

Instructor(s): W. J. T. Mitchell Terms Offered: Winter

Equivalent Course(s): ENGL 20228, ARTH 30228, FNDL 20228, ARTH 20228

ENGL 30806. British Drama, 1660-1830. 100 Units.

This survey of British drama during the long eighteenth century ranges from Restoration sexual comedy and civic drama of political virtue and self-sacrifice to popular spectacles of criminal justice and early Gothic theater of passionate hatred. Alongside the plays, we will consider theatrical history (including Shakespearean legacies and significant actors of the period like David Garrick, Mary Robinson, and Sarah Siddons) together with criticism and theory, past and present. (Drama, 1650-1830; 18th/19th)

Instructor(s): Timothy Campbell Terms Offered: Spring

Equivalent Course(s): ENGL 20806

ENGL 31006. Joseph Conrad's Secret Agent: (In)action, Surveillance, Terrorism. 100 Units.

Course centers on Joseph Conrad's *The Secret Agent: A Simple Tale*. Contemporary critics often consider this novel the archetypal fictional work about terrorism, as it is based on the bomb attack that occurred in Greenwich in 1888. *The Secret Agent* demonstrates, however, much more than its prophetic significance rediscovered after 9/11. Therefore, the course seeks how the novel's relevance stems in equal measure from Conrad's interest in a wider political process and his distrust of state power; in particular, the course explores how these forces determine the individual caught in a confining situation. We read *The Secret Agent* as a political novel, that struggle for solutions defies chaos as well as an imposition of a single ideology or one authorial point of view. Its ambiguities and political antinomies allow for interdisciplinary readings that also present an opportunity to critically overview the established approaches to main Conradian themes. In analyzing the formation of the narrative's ideology we discuss Conrad's historical pessimism that demonstrates with sustained irony how capitalism breeds social injustice that, in turn, breeds anarchism. The class also focuses on how the novel exposes duplicity in staging surveillance, terrorism, as well as adjacent forms of violence or sacrifice. Critical texts include several older but still influential readings (Jameson, Eagleton) and the most recent.

Equivalent Course(s): REES 31006, FNDL 21006, ENGL 21006, REES 21006

ENGL 31101. Romantic Poetry. 100 Units.

In the wake of the American and French Revolutions, and still in the early days of the world's first Industrial Revolution, two British poets—William Wordsworth and Samuel Taylor Coleridge—set out to produce another kind of revolution that they hoped could save their readers from a harsh new world of culture and sensibility brought on by "causes unknown to former times." Their experiments in poetry were informed by a likewise unprecedented analysis of the problems that they saw besetting their own moment. It was an extraordinary exercise in critical media theory very much *avant la lettre*. Both the experiments and the analysis had far-reaching on poets of their moment—especially Shelley and Keats—and poets beyond it, and have mattered much to the modern understanding of literature and criticism well into the twentieth century and into our own time. This course will take up the challenge of coming to terms with the Romantic "revolution in taste" in close engagements with both familiar and unfamiliar works. We will read other poets of the period, including Blake, Byron, Charlotte Smith, and Anna Laetitia Barbauld—and also come to terms with the massive legacy of Romantic poetry and poetics ever since, not least in the formation of modern practical criticism. There will be a short paper (3-4 pp.) and a longer one (15 pp.). (18th/19th)

Instructor(s): James Chandler Terms Offered: Winter

ENGL 31562. Third World Women's Writing. 100 Units.

Though a term initially coined by French anthropologist Alfred Sauvy to categorized "developing" nations unaligned with major world powers during the Cold War, this course asks how African, Asian, Caribbean, and other Third Worldist women writers reclaimed the "Third World" as a project of people-centered unity, and engineered what political and cultural possibilities Third Worldist literature might realize for women in the anti- and post-colonial eras and today. Students will read critical transnational feminist theory and scholarship alongside novels and short stories by such authors as Maryse Condé, Marie NDiaye, and Salwa Al Neimi. (20th/21st)

Instructor(s): Sophia Azeb Terms Offered: Winter

Equivalent Course(s): CRES 31562, GNSE 31562

ENGL 32123. Ecopoetics: Literature and Ecology. 100 Units.

This course will explore a range of literary responses to the period commonly known as the anthropocene, understood as the geological age in which the prevailing economic and social paradigms of humans have conditioned changes in climate and the environment. We will read foundational texts in environmental perception and activism (Ruskin's "Storm-Cloud of the Nineteenth Century" and Rachel Carson's *Silent Spring*) in dialogue with modernist work engaging with urban landscapes (William Carlos Williams's *Paterson*). We will then open onto a wide range of contemporary texts that engage the natural and constructed environment in crisis. In tandem with our readings, fieldwork throughout Chicago (on the Chicago River, at local Superfund sites, at the Chicago Architecture Biennial) will expand our awareness of how global and regional crises manifest locally, and introduce students to new methods of engaging with ecological challenges. (20th/21st)

Instructor(s): Jennifer Scappettone Terms Offered: Autumn

ENGL 32300. Marxism and Modern Culture. 100 Units.

Designed for graduate students in the humanities, this course begins with fundamental texts on ideology and the critique of capitalist culture by Marx, Engels, Lenin, Gramsci, Althusser, Wilhelm Reich and Raymond Williams, before moving to Marxist aesthetics, from the orthodox Lukács to the Frankfurt School (Adorno, Benjamin) to the heterodox (Brecht), and concludes with contemporary debates around Marxism and imperialism (Lenin, Fanon, and others), and Marxism and media, including the internet. This course will have a particular focus on guiding students through the conventions of academic writing in the Humanities.

Instructor(s): Loren Kruger Terms Offered: Winter

Prerequisite(s): Humanities graduate students and equivalent (eg DIV school; not suitable for MAPSS or Social Science PhDs)

Equivalent Course(s): MAPH 31600, CMLT 31600

ENGL 32821. Art and Public Life. 100 Units.

The aim of this seminar-colloquium will be to work through some of the most advanced thinking on ideas about publics and their relation to questions of community, politics, society, culture, and the arts. From John Dewey through Hannah Arendt and Jurgen Habermas, the notion of the public has remained central to a wide variety of debates in the humanities and social sciences. What is a public? How are publics constituted? What is the role of real and virtual space, architectural design, urban planning, and technical media, in the formation of publics? And, most centrally for our purposes, what role can and do the arts play in the emergence of various kinds of publics? The colloquium aspect of the course will involve visiting speakers from a variety of disciplines, both from the University of Chicago faculty, and from elsewhere.

Instructor(s): W.J.T. Mitchell, T. Gates Terms Offered: Autumn

Equivalent Course(s): ARTV 37911, ARTH 47911, CMST 37802, MUSI 35014

ENGL 33000. Academic and Professional Writing (The Little Red Schoolhouse) 100 Units.

Academic and Professional Writing, a.k.a. "The Little Red Schoolhouse" or "LRS" (English 13000/33000) is an advanced writing course for third- and fourth-year undergraduates who are taking courses in their majors or concentrations, as well as graduate students in all of the divisions and university professional programs. LRS helps writers communicate complex and difficult material clearly to a wide variety of expert and non-expert readers. It is designed to prepare students for the demands of academic writing at various levels, from the B.A. thesis to the academic article or book--and for the tasks of writing in professional contexts.

Instructor(s): L. McEnerney, K. Cochran, T. Weiner Terms Offered: Spring Winter

Prerequisite(s): Third- or fourth-year standing

Note(s): This course does not count towards the ISHU program requirements. May be taken for P/F grading by students who are not majoring in English. Materials fee \$20.

Equivalent Course(s): ENGL 13000

ENGL 34100. Foundations of Interpretive Theory. 100 Units.

The MAPH Core Course, Foundations of Interpretive Theory, begins two weeks before regular University classes and covers seminal works by thinkers such as Freud, Lacan, and Marx. It is taught by the MAPH Director and Deputy Director and may include guest lectures by distinguished faculty members from different disciplines. The course is designed to give MAPH students a shared base for their further study.

Equivalent Course(s): MAPH 30100

ENGL 34114. Representing Revolutions. 100 Units.

TBD

Instructor(s): Larry Rothfield Terms Offered: Spring

Equivalent Course(s): ENGL 24114, CMLT 24104, CMLT 34104

ENGL 34255. America's Literary Scientists. 100 Units.

This course targets in on the entanglements between science and literature during the nineteenth and early twentieth century in America--a historical moment when these realms did not appear nearly as divided as they do now. In particular, we attend to the period's exciting developments in biology, which promised to revolutionize contemporary notions of human being. Our analysis of American fiction will center on the subjects and methods that writers adopted (imaginatively and often critically) from fields like evolutionary science, microbiology, and experimental psychology. But the course syllabus also includes American scientists who wrote fiction: What types of knowledge did they hope to produce in becoming literary? The aim of our inquiry will, in large part, be to examine the role of literature in shaping the significance of science in American culture, as well as the role of science in helping to build an American literary canon. Along the way, we will track the kinds of experiments in form and genre that such literary-scientific hybrids might produce. Readings may include works by Henry Adams, W.E.B. Du Bois, Charlotte Perkins Gilman, Oliver Wendell Holmes, William James, Silas Weir Mitchell, Mark Twain, and Edith Wharton. Theoretical and critical works will be drawn from the history of science, science and technology studies, and nonhuman studies.

Instructor(s): Agnes Malinowska Terms Offered: Spring

Note(s): Open to 3rd and 4th years in the College and MA students

Equivalent Course(s): MAPH 34255, ENGL 24255

ENGL 34407. Critique of Humanism. 100 Units.

This course will provide a rapid-fire survey of the philosophical sources of contemporary literary and critical theory. We will begin with a brief discussion of the sort of humanism at issue in the critique--accounts of human life and thought that treat the individual human being as the primary unit for work in the humanities and the humanistic social sciences. This kind of humanism is at the core of contemporary common sense. It is, to that extent, indispensable in our understanding of how to move around in the world and get along with one another. That is why we will conduct critique, rather than plain criticism, in this course: in critique, one remains indebted to the system under critical scrutiny, even while working to understand its failings and limitations. Our tour of thought produced in the service of critique will involve work by Hegel, Marx, Gramsci, Freud, Fanon, Lacan, and Althusser. We will conclude with a couple of pieces of recent work that draws from these sources. The aim of the course is to provide students with an opportunity to engage with some extraordinarily influential work that continues to inform humanistic inquiry.

Instructor(s): C. Vogler Terms Offered: Spring

Equivalent Course(s): PHIL 31225, ENGL 12002, PHIL 21225

ENGL 34422. The Science of Literature. 100 Units.

This course examines the modern history of literature as an object of scientific study. In particular, it introduces key moments in the conversation between quantitative methods and literary interpretation from the late-19th century to today. These include physiological theories of the novel; stylistics; book history; sociologies of reading; distant reading; and cultural analytics. At each moment we consider the intellectual contexts that encouraged dialogue between the sciences and literature; probe the theories and models by which this dialogue was framed; and consider its relevance to the practice of literary criticism today.

Instructor(s): H. Long Terms Offered: Spring

Equivalent Course(s): EALC 24411, ENGL 24422, EALC 34411

ENGL 34515. Introduction to Videogame Studies: Art, Play, and Society. 100 Units.

This course is intended as an introduction to the study of videogames in the humanities. Topics include videogame form (visual style, spatial design, sound, and genre); videogames as a narrative medium; embodiment and hapticity in videogame play; issues of identity/identification, performance, and access related to gender, sexuality, race and ethnicity, ability, and class; and rhetorical, educational, and political uses of videogames. Just as the videogame medium has drawn from older forms of art and play, so the emerging field of videogame studies has grown out of and in conversation with surrounding disciplines. With this in mind, readings and topics of discussion will be drawn both from videogame studies proper and from other fields in the humanities - including, but not limited to, English, art history, and cinema and media studies. Undergraduates should be prepared for an MA-level reading load but will write final papers of the standard length for upper-level undergraduate courses (8-10 pages versus 12-15 for MA students). MA students interested in pursuing a particular research topic in-depth will be given supplemental readings. This course will also be designed to take advantage of the University of Chicago's videogame collection, and will require game play both individually and as part of group play sessions.

Instructor(s): Christopher Carloy Terms Offered: Spring

Note(s): Email for instructor consent

Equivalent Course(s): DIGS 20010, MAAD 27915, MAPH 34515, ENGL 24515, DIGS 30010, CMST 27915, CMST 37915

ENGL 34540. Islands and Otherness. 100 Units.

The island as a space of possibility - of discovery, of (re)imagination, and of otherness - is a concept with a very long history in Anglophone literature. Indeed, Britain's own archipelagic geography (a landscape unique among Europe's imperial powers) has often been invoked for a range of rhetorical ends. John of Gaunt's famous speech in *Richard II* uses the idea of Britain as the "scepter'd isle" as both a source of comfort (England as especially favored) and the foundation of critique (favor squandered). With the rise of transoceanic empires, writers throughout Great Britain, its colonial dominions, and other literary traditions imbued the symbol of the island with ever-increasing layers of meaning. Yet the island was also always already a location of anxiety, hostility, and liminality - of alternate cultural practices and systems of belief, of indigenous peoples who refused the claims of the colonizer, and where the meaning of Europe itself was destabilized in the colonial encounter. While eighteenth- and nineteenth-century European writers often deployed the island to think through the implications of empire for the metropole, anticolonial writers turned to the island as a site of resistance and recuperation. This transhistorical course will discuss the many significations of the island in metropolitan, colonial, and postcolonial literature as a lens into the conflicts and debates of imperialism.

Instructor(s): Tristan Schweiger Terms Offered: Spring

Note(s): Open to MAPH students and 3rd and 4th years in the College

Equivalent Course(s): MAPH 34540, ENGL 24540

ENGL 34800. Poetics. 100 Units.

In this course, we will study poetry 'in the abstract', through the various efforts on the part of philosophers, literary critics and poets themselves to formulate theories of poetic discourse. We will examine a range of historical attempts to conceptualize poetry as a particular kind of language practice, starting from German Romanticism. We will also question the very project of thinking about "poetics" as opposed to "poetry" or "poems." Is it possible to theorize the art form without doing violence to the particularity - and peculiarity - of individual poems? Contemporary debates between historical, philosophical and activist poetics will be used as an entryway to our seminars and collective readings. (18th/19th, 20th/21st).

Instructor(s): John Wilkinson Terms Offered: Autumn

Equivalent Course(s): MAPH 34800

ENGL 34850. T.S. Eliot. 100 Units.

With the major new edition of Eliot's poems by Jim McCue and Christopher Ricks, the new volumes of Eliot's letters, and two separate new editions of Eliot's complete prose, we are in a position to rethink the meanings and force of Eliot's life work. The class will be devoted to careful reading of his poems, essays, plays, and correspondence, with attention to his literary, cultural, and political contexts.

Equivalent Course(s): ENGL 26614, FNLD 26614, SCTH 36014

ENGL 34960. California Fictions: Literature and Cinema 1945-2018. 100 Units.

This course uses the cases of the Los Angeles and San Francisco areas to track the entanglement of literature and critical space studies. We will engage with critical geography studies, considerations of everyday life, and cultural studies of urbanism to interrogate the relationship of literature and cinema to the politics of space. Students will learn to read contemporary literature through the political construction of the lived world, and to think with current scholarship on race, space, gender, sexuality, and ordinary life. Includes fiction by Chester Himes, Michelle Tea, and Oscar Zeta Acosta, and theoretical and critical works by Karen Tongson, Sara Ahmed, Michel de Certeau, and Nigel Thrift.

Instructor(s): Megan Tusler Terms Offered: Winter

Note(s): Open to MAPH students: 3rd and 4th years in the College email 2-3 sentences about why you want to take the course for consent.

Equivalent Course(s): MAPH 34960, ENGL 24960

ENGL 35008. Changing Worlds: J.G. Ballard's Apocalyptic Quartet. 100 Units.

Between 1961 and 1966, the English novelist and short story writer J.G. Ballard produced four novels (THE WIND FROM NOWHERE, THE DROWNED WORLD, THE BURNING WORLD, and THE CRYSTAL WORLD) that depict, poetically and concretely, global changes to the earth and its human inhabitants, in particular their imaginations. The relation of these lyrical apocalypses to science fiction, visual art, ecology and the philosophy of time, as well as their awkward coordination into a cycle, will concern us. We will conclude the course by reading Anna Kavan's 1967 ICE, which in a way complements and completes Ballard's cycle.

Instructor(s): Andrei Pop Terms Offered: Autumn. Course to be taught Autumn 2019

Note(s): Open to undergraduates.

Equivalent Course(s): FNDL 25008, SCTH 35008

ENGL 35417. Utopia and Perfection in Late Medieval England. 100 Units.

A course on the drive to individual and collective perfection, and its relation to social and psychic conflict.

Readings from medieval political theory, theology, mystical, hagiographical, and penitential writing, texts documenting the demographic and political upheavals of the 14th century, and poetry of the period. (Med/Ren)

Instructor(s): Mark Miller Terms Offered: Autumn

ENGL 35509. Psychoanalytic Theory: Freud and Lacan. 100 Units.

For this course, we will read major texts by Freud and Lacan. Freud readings will include "Beyond the Pleasure Principle," "Note on a Mystic Writing Pad," "The Uncanny," "Jensen's Gradiva," the Dora case, and a selection of texts from other works. Lacan readings: "Seminar on the Purloined Letter," Poe's "The Purloined Letter," "God and the Jouissance of the Woman: A love letter," and parts of the *Écrits*. We will also read excerpts from a variety of texts that use the writings of Freud and Lacan for theoretical purposes: Derrida, Sarah Kristeva, Irigaray, Žižek, and others.

Instructor(s): Françoise Meltzer Terms Offered: Winter

Equivalent Course(s): ENGL 25509, FREN 25551, FREN 35551, CMLT 25551, CMLT 35551

ENGL 35550. Feminist and Queer Literary Criticism. 100 Units.

An introduction to classic texts in feminist and queer literary criticism. We will also be reading works by Frank O'Hara, Tennessee Williams, Octavia Butler, Ernest Hemingway, Allen Ginsberg, Gwendolyn Brooks, Adrienne Rich, Sylvia Plath, Harryette Mullen, and Maggie Nelson. (20th/21st)

Instructor(s): Sianne Ngai Terms Offered: Spring

Equivalent Course(s): GNSE 35550

ENGL 35902. Virgil, The Aeneid. 100 Units.

A close literary analysis of one of the most celebrated works of European literature. While the text, in its many dimensions, will offer more than adequate material for classroom analysis and discussion, attention will also be directed to the extraordinary reception of this epic, from Virgil's times to ours.

Instructor(s): G. Most Terms Offered: Winter 2013

Prerequisite(s): Latin helpful

Equivalent Course(s): CLAS 44512, SCTH 35902, CMLT 35902

ENGL 36012. 19th Century French Poetry in Translation: Tradition and Revolution. 100 Units.

A study of modern French lyric poetry: Tradition and Revolution, Poetry and Politics, the seedbed of Modernism. Desbordes-Valmore, Baudelaire, Mallarmé, Verlaine, Rimbaud, Apollinaire. Texts will be read in English with reference to the French originals. Close reading, references to poetry in English, and focus on problems in translation. Students with French should read the poems in the original. Class discussion to be conducted in English; critical essays to be written in English. An extra weekly session will be scheduled for discussion in French, for French-speakers.

Instructor(s): Rosanna Warren Terms Offered: Autumn. Course to be taught autumn 2019

Prerequisite(s): For advanced undergrads seeking French credit: French 20500 or 20503 and at least one literature course taught in French.

Note(s): For graduate students and advanced undergraduates.

Equivalent Course(s): SCTH 26012, SCTH 36012, FREN 36019, FREN 26019, CMLT 36012

ENGL 36013. Contemporary Poems in English. 100 Units.

Equivalent Course(s): SCTH 36013

ENGL 36222. Elizabeth Bishop and Robert Lowell. 100 Units.

An intensive study of these two poets, whose work differs radically, but whose friendship nourished some of the most enduring and original poetry of the American 20th century. Close attention to the poems, in the light of recent biographical work and new editions.

Equivalent Course(s): SCTH 36002

ENGL 36407. Comedy Central 2: The Body's Genres. 100 Units.

The story of comedy from the classics on focuses on the comedic as a weapon, as play that disrupts communication, and as a scene of moral revelation. This course will take up those relations, but begins with the body. We will focus on the plastic, corporeal, affective, and psychodramatic dynamics of the comedic. So much so, in fact, that we're calling it a studio seminar: it will involve actively participating in exercises adapted from the somatic arts, contemporary dance, music, theatre and contemporary comedy and developing new ones. Recognizing that bodies are as much created by movement as engendering it, and recognizing that the comedic is a register for translating the impact of other bodies including the world's body, the course will partition "the body" into focal themes such as: scale/gesture, the vocal grotesque/irony, movement/interruption, trauma/repair, slapstick/satire, ritual/convention, spontaneity/improvisation; cognitive laughter/belly laughter. Readings will include texts by Linda Williams, Erving Goffman, J.L. Moreno, Elias Canetti, Moshe Feldenkrais, Steve Paxton, Mikhail Bakhtin, Mae West, Jerry Lewis and Fred Moten. Students will contribute their own choices to an exploration of individual performances by Buster Keaton, Louise Lasser, Eleo Pomare, Phyllis Diller, Jackie "Moms" Mabley, and Jerrod Carmichael.

Instructor(s): L. Berlant, C. Sullivan Terms Offered: Autumn

Equivalent Course(s): TAPS 36215, ARTV 36215

ENGL 36522. Biography, History, Art: Documenting Blakelock. 100 Units.

This Gray Center sponsored research practicum is tied to a film project with documentary-maker and Mellon Collaborative Fellow Ric Burns about outsider artist Ralph Blakelock. America's van Gogh, Blakelock created art far ahead of his time, went mad, and spent nearly twenty years in an asylum before emerging into the glare of flashbulbs as the most sought-after painter of the 1910s, only to end his life as victim of a con game. In between, he sojourned with the Sioux, hobnobbed with Gilded Age millionaires, channeled Longfellow and Mendelssohn in his art, struggled in the emergent New York "art world", played vaudeville piano, and became one of the first major figures in modern celebrity-driven mass media. How best to capture this kaleidoscopic life and Blakelock's dizzying art in a documentary is the creative challenge of the seminar. Our focus will be on Blakelock's *Ghost Dance/The Vision of Life*. Art Institute conservators, assisted by chemistry department Professor Steven Sibener, will use scientific imaging to see inside the painting, whose provenance and context of production and reception need to be researched. Participants will be assigned to specific topics based on area of expertise. The course should be of particular interest to students in DOVA, Art History, History, English, Psychology, Chemistry, Cinema Studies, and Anthropology.

Instructor(s): Lawrence Rothfield; Ric Burns Terms Offered: Spring

Prerequisite(s): Instructor consent required. Open to students at all levels, undergraduate and graduate. Email a letter of interest to Professor Rothfield: lary@uchicago.edu.

Equivalent Course(s): CMST 28265, CMST 38265, ENGL 26522, ARTV 30203, ARTV 20203

ENGL 36661. The Rise of the Global New Right. 100 Units.

This course traces the intellectual genealogies of the rise of a Global New Right in relation to the contexts of late capitalist neoliberalism, the fall of the Soviet Union, as well as the rise of social media. The course will explore the intertwining political and intellectual histories of the Russian Eurasianist movement, Hungarian Jobbik, the American Traditional Workers Party, the French GRECE, Greek Golden Dawn, and others through their published essays, blogs, vlogs and social media. Perhaps most importantly, the course asks: can we use f-word (fascism) to describe this problem? In order to pose this question we will explore the aesthetic concerns of the New Right in relation to postmodern theory, and the affective politics of nationalism. This course thus frames the rise of a global new right interdisciplinary and comparatively as a historical, geopolitical and aesthetic problem.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): REES 36661, CMLT 26660, ENGL 26660, CRES 26660, REES 26660, SIGN 26050, CRES 36660, CMLT 36660

ENGL 36710. Eccentric Moderns. 100 Units.

An examination of six idiosyncratic poets who invented new forms of language on the peripheries of High Modernism: David Jones, Laura Riding, Hart Crane, W.H. Auden, Geoffrey Hill, and Anne Carson. Close formal analysis of the poems in the wider social and political contexts of the 20th and early 21st centuries.

Instructor(s): Rosanna Warren Terms Offered: Autumn. course is offered Autumn 2018

Prerequisite(s): Open to advanced undergraduates

Equivalent Course(s): SETH 36710

ENGL 36810. Intellectuals and Power. 100 Units.

Intellectuals may be defined as those who speak truth to power, but how they speak, with what conception of truth, and in relation to what kind of power? In this course, we will try to begin to answer these questions by looking at the works and lives of some exemplary intellectuals, including Machiavelli, Carlyle, Benda, Nietzsche, Sartre, Ellison, Foucault, Sontag, and Said.

Instructor(s): Larry Rothfield Terms Offered: Winter

Equivalent Course(s): CMLT 36810, CMLT 26810

ENGL 37451. Stateless Imaginations: Global Anarchist Literature. 100 Units.

Stateless Imaginations: World Anarchist Writing This course examines the literature, aesthetics, and theory of global anarchist movements, from nineteenth-century Russian anarcho-syndicalism to Kurdish stateless democratic movements of today. We will also study the literature of "proto-anarchist" writers, such as William Blake, and stateless movements with anarchist resonances, such as Maroon communities in the Caribbean. Theorists and historians will include Dilar Dirik, Nina Gurianova, Paul Avrich, Luisa Capetillo, Emma Goldman, Maia Ramnath, and Thomas Nail. Particular attention will be given to decolonial thought, religious anarchism, fugitivity and migration, and gender and race in anarchist literature.

Instructor(s): Anna Elena Torres Terms Offered: Spring
Equivalent Course(s): ENGL 27451, CMLT 37450, CMLT 27450

ENGL 37803. The Body of Cinema: Hypnoses, Emotions, Animalities. 100 Units.

Equivalent Course(s): CMST 27803, CMST 47803

ENGL 37815. Appropriations and Impostures. 100 Units.

What are the different aesthetic and literary uses of appropriation? The editor of a Canadian magazine who set up the Appropriation Prize in 2017, defended the practice of cultural appropriation by insisting that "anyone, anywhere, should be encouraged to imagine other peoples, other cultures, other identities." This case underscores the continuing tension between narrative as a vehicle for imagining and empathizing with distant others, and notions of cultural property. In this course, we look at a selection of literary works that speak to these themes including Diderot, Ern Malley, Patricia Highsmith, Peter Carey, Kenneth Goldsmith, and Sherman Alexie, with particular attention to the work of appropriation in postcolonial contexts. We also touch on appropriation in other media, such as for instance, Richard Prince's "New Portraits," Sherrie Levine's "After Walker Evans", and Ni Haifeng's installations.

Instructor(s): Darrell Chia Terms Offered: Spring
Note(s): Open to MAPH students and 3rd and 4th years in the College
Equivalent Course(s): ENGL 27815, MAPH 37815

ENGL 38710. On Fear and Loathing: Negative Affect and the American Novel. 100 Units.

Equivalent Course(s): MAPH 40120, ENGL 28710

ENGL 39120. Renaissance Christian Epic: Tasso, Vida, Milton. 100 Units.

This course will focus upon the two most important Renaissance Christian epics, Torquato Tasso's *La Gerusalemme liberata/Jerusalem Delivered* (first pub. 1581) and John Milton's *Paradise Lost* (first pub. 1667), and two brief Biblical epics, Marco Girolamo Vida's *Christiad* (1535) and Milton's *Paradise Regained* (1671). We will examine these four Renaissance epics as ambitious efforts to revive an ancient and pagan form in order to depict Christian and self-consciously modern visions. We will consider how Renaissance epic poets imitate and emulate both their classical models (primarily Homer's *Iliad* and *Odyssey*, Virgil's *Aeneid*, and Ovid's *Metamorphoses*) and Judeo-Christian sources (primarily the Bible); seek to forge an elevated and appropriate language for epic in Latin, Italian, and English; espouse new visions of the human, the heroic, and gender relations; and adumbrate distinctively modern national, imperial, and global ambitions. All non-English texts will be read in translation, but students who can read Latin or Italian will be encouraged to read the originals.

Instructor(s): Joshua Scodel Terms Offered: Spring
Equivalent Course(s): ENGL 29120, CMLT 39120, CMLT 29120

ENGL 39203. Bad Readers. 100 Units.

By the end of the eighteenth century more women and working class readers existed than ever before, and as the ranks of readers grew, so did cultural fears about the dangerous effects of popular, untrained, promiscuous, escapist, or otherwise bad, reading. This course will investigate the democratization of the "reading public," the debates about the dangers of reading that it provoked, and the ways that these arguments inflect, underlie, or diverge from contemporary anxieties about what constitutes bad reading, from Eve Sedgwick's critique of paranoid reading to the now daily warnings about fake news. (18th/19th)

Instructor(s): Alexis Chema Terms Offered: Winter

ENGL 39413. Language is Migrant: Yiddish Poetics of the Border. 100 Units.

This course examines Ashkenazi Jewish literary narratives about geopolitical borders and border-crossing through travel and migration, engaged with questions about the linguistic borders of Yiddish itself. As a diasporic language, Yiddish has long been constructed as subversively internationalist or cosmopolitan, raising questions about the relationships between language and nation, vernacularity and statelessness. This course explores the questions: How do the diasporic elements of the language produce literary possibilities? How do the "borders" of Yiddish shape its poetics? How do Yiddish poets and novelists thematize their historical experiences of immigration and deportation? And how has Yiddish literature informed the development of other world literatures through contact and translation? Literary and primary texts will include the work of Anna Margolin, Alexander Harkavy, Peretz Markish, Dovid Bergelson, Yankev Glatshteyn, Yosef Luden, S. An-sky, and others. Theoretical texts will include writing by Wendy Brown, Dilar Dirik, Gloria Anzaldúa, Wendy Trevino, Agamben, Arendt, Weinreich, and others. The course will incorporate Yiddish journalism and essays, in addition to poetry and prose. All material will be in English translation, and there are no prerequisites.

Instructor(s): Anna Elena Torres Terms Offered: Spring
Equivalent Course(s): CMLT 29402, ENGL 29413, JWSC 29402, CMLT 39402

ENGL 40110. Literature and Citizenship. 100 Units.

What we think of as modernity can be said to begin with the birth (or rebirth) of the citizen. During the 17th and 18th centuries, revolutions in Britain, France, and North America sought to recast political society as a structure built upon social contracts and natural rights of the people rather than the divine right of kings. Yet the category of citizen was (and remains) exclusionary as well as inclusive, frequently deployed to mark those outside its boundaries and protections. During the 19th and 20th centuries, the constructions of race, gender, and nation continued to shift into new forms, and many literatures of these centuries focus on how "the citizen" is conceived and reinvented into the present. This interdisciplinary, trans-historical, and transatlantic course will discuss how these tensions and debates influence literature and political discourse over four centuries, a breadth that will allow us to trace the concepts and critiques of citizenship as they have come to shape our contemporary world. Primary readings will include William Shakespeare, Tobias Smollett, Olaudah Equiano, Anna Laetitia Barbauld, Herman Melville, Frederick Douglass, Richard Wright, Miné Okubo, and Claudia Rankine. Secondary and theoretical readings will include Michel Foucault, Raymond Williams, Benedict Anderson, Ian Baucom, Lord Mansfield, C. L. R. James, Paul Gilroy, John Locke, Thomas Jefferson, Achille Mbembe, Emma Goldman, and Harry Harootyan.

Equivalent Course(s): ENGL 24119, MAPH 40110

ENGL 40203. Biopolitics & Posthumanism. 100 Units.

Much has been written about the possibility (or impossibility) of creating an integrated political schema that incorporates living status, not species boundary, as the salient distinction between person and thing. In this course, we will explore how biopolitical and posthumanistic scholars like Michel Foucault, Hannah Arendt, Giorgio Agamben, Jane Bennett, Cary Wolfe, and Donna Haraway have acknowledged (and advocated transcending) the anthropocentric *Umwelt*, to borrow Jakob von Uexküll's influential term. In parallel with our theoretical readings, we will explore how actual legal systems have incorporated the nonhuman, with a particular focus on Anglo-American and transnational law. Our goal is to develop our own sense of an applied biopolitics—whether to our own research, to future legislation and jurisprudence, or both.

Instructor(s): Nicolette I. Bruner Terms Offered: Winter

Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. No instructor consent is required, but registration is not final until after the 1st week in order to give Ph.D. students priority.

Equivalent Course(s): CHSS 40203, CMLT 40203, KNOW 40203

ENGL 40305. The Archive of Early English Literature: Manuscripts, Books, and Canon. 100 Units.

This course will introduce students to early English literature through manuscript studies and book history. Throughout the course we will reflect on archival research as a critical practice: how do the material histories of early texts invite us to rethink the fundamental categories that organize literary history, like authorship or canonicity? The course will be both a practicum (teaching the basics of paleography, codicology, and textual editing) and an ongoing conversation about the archives of literary history, as sites of interpretation, memory, and erasure. We will meet in the Special Collections Research Center, and use the collections of the University of Chicago. We will first focus on the archives of Chicago's Chaucer Research Project and its principals, John Matthews Manly and Edith Rickert, who tried to establish an authoritative text of the *Canterbury Tales* in the early twentieth century. The second half of the course will focus on print culture and reading practice, with a focus on Chicago's collection of early modern commonplace books. Students will propose and pursue a research project in the U of C or Newberry Library collections, on a topic of their choosing. Students will produce a piece of scholarship that reflects both careful research in those collections and thoughtfulness about the place of that research in critical practice.

Instructor(s): J. Stadolnik Terms Offered: Spring

Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. No instructor consent is required, but registration is not final until after the 1st week in order to give Ph.D. students priority.

Equivalent Course(s): KNOW 40305, CHSS 40305

ENGL 40309. Miracles, Marvels, and Mystics: Unknowing in Medieval England. 100 Units.

In this seminar we will explore how premodern literary texts imagined experiences of 'unknowing': narrating scenes of astonishment, misapprehension, and disbelief. Our primary readings will draw on a rich tradition of vernacular writing in medieval England. We will read across that tradition's genres, as writers experimented with ways to represent the wondrous, the occluded, the incomprehensible, and the horrific in a variety of forms, among them spectacular miracle plays, prose exercises in mystical negation, and the poetry of dreamworlds and alchemical secrecy.

Instructor(s): Joe Stadolnik Terms Offered: Spring

Equivalent Course(s): KNOW 40309

ENGL 41202. The Brontes and the 'Psychological Novel' 100 Units.

This course takes the novels of Emily and Charlotte Bronte as a case study for novel theory and criticism. In particular we will consider what it has meant to claim that the Brontes' novels have a special relationship to or claim on the psychological. What is at stake in the critical interest in subjectivity, interiority and depth in these novels? What might it mean to read these (or any) novels without or against a privileging of the psychological? We will look at significant critical movements in Victorian novel studies (ideology critique; gender theory; historicism; etc.) that have taken the Brontes' novels as their objects while we read *Wuthering Heights*, *Jane Eyre*, *Shirley*, *Villette* and other nineteenth century texts.

Instructor(s): Strang, Hilary

Note(s): Current MAPH students and 3rd and 4th years in the College. All others by instructor consent only.

Equivalent Course(s): GNSE 41200, ENGL 21202, GNSE 21210, MAPH 41200

ENGL 41219. Interpretation: Theory and Practice. 100 Units.

his seminar will be conducted on two tracks. On the one hand, we will study major contributions to hermeneutic theory (including positions that understand themselves as anti-hermeneutic). Contributions to be considered include works by Friedrich Schleiermacher, Wilhelm Dilthey, Martin Heidegger, Hans-Georg Gadamer, Paul Ricoeur, E.D. Hirsch, Manfred Frank, Roland Barthes, Stanley Cavell, and Jacques Derrida. At the same time, the seminar will include a practical component in which we will collectively develop interpretations of works by Heinrich von Kleist, Johann Peter Hebel, Franz Kafka, Friedrich Nietzsche, Charles Baudelaire, Guillaume Apollinaire, Emily Dickinson, and Herman Melville. English translations of the assigned readings will be provided. (This course is restricted to students in Ph.D. programs.)

Instructor(s): David Wellbery Terms Offered: Autumn

Equivalent Course(s): FREN 41219, GRMN 41219, CMLT 41219, SCTH 41219

ENGL 41310. Our biopolitics, ourselves: feminist science fiction. 100 Units.

1970s feminist theory made a significant conceptual move in provisionally bracketing off biological sex from the historical/cultural work of gender. Feminist science fiction (in contrast), in its brief flourishing in the 70s and early 80s, finds its utopian moments in the biological, in genetic manipulation, reproductive technology, ecological forms of being and new bodies of a variety of kinds. This class will read science fiction, feminist theory and current critical work that concerns itself with biopolitics in order to ask questions about the divide between nature and culture, what's entailed in imagining the future, what gender and genre might have to do with each other, and just what science fiction is and does anyway. Authors include: Le Guin, Russ, Butler, Piercy, Haraway, Rubin, Firestone.

Instructor(s): Hilary Strang Terms Offered: Spring

Equivalent Course(s): MAPH 41300, GNSE 21310, ENGL 21310, GNSE 41300

ENGL 41420. Futures Other Than Ours: Science Fiction and Utopia. 100 Units.

Science fiction is often mistaken for a variety of futurism, extrapolating what lies ahead. This class will consider what kind of relationship science fiction might have to the future other than prediction, anticipation, optimism or pessimism. How might science fiction enable thinking or imaging futures in modes other than those available to liberalism (progress, reproduction, generation) or neoliberalism (speculation, anticipation, investment)? This class asks how science fiction constitutes its horizons, where and how difference emerges in utopias, and what it might be to live in a future that isn't ours. Readings may include SF works by Delany, Le Guin, Russ, Butler, Robinson, Banks, Ryman, Jones; theoretical and critical readings by Bloch, Jameson, Suvin, Munoz, Murphy, and others.

Instructor(s): Hilary Strang Terms Offered: Winter

Note(s): Email the instructor directly for consent.

Equivalent Course(s): MAPH 41400, ENGL 21420

ENGL 41500. Bodies of Transformation. 100 Units.

Drawing on trans studies, disability studies, histories of science, queer and postcolonial theory, this class contends with how bodies and bodies of knowledge change over time. Bodies of Transformation takes a historiographic approach to the social, political, and cultural underpinnings of corporeal meaning, practice and performance in the 19th and 20th centuries. Animating questions include: what is the corporeal real? how is race un/like gender? how does bodily transformation map the complex relationships between coercion and choice?

Instructor(s): C. Riley Snorton Terms Offered: Autumn

Equivalent Course(s): TAPS 41500, GNSE 41500, CRES 41500

ENGL 42119. Milton's Italian Music. 100 Units.

This seminar examines John Milton's encounter with Roman culture, first and foremost music, around 1640. It is built around the April 2019 performance in Logan Center of this music by the English early music group *Atalanta*, for which students will prepare notes and preconcert activities. Reading Milton's youthful texts, as well as literature and poesis per musica from Rome, while studying the musical genres and personalities that we know he encountered there, gives insight into this encounter between Puritan and Barbarini sensibilities, seemingly so distant, but mediated via music. In addition to preparing for the concert activities (including interacting with the singers in a workshop), students will write a research paper. Prerequisites: no music reading needed, but experience with 17th-century English or Continental literature will aid in that case.

Instructor(s): Robert L. Kendrick Terms Offered: Winter

Prerequisite(s): Prerequisites: no music reading needed, but experience with 17th-century English or Continental literature will aid in that case.

Equivalent Course(s): MUSI 42119, ITAL 40119

ENGL 42351. The Sonic Image. 100 Units.

The Sonic Image offers a unique opportunity to work with three senior researchers exploring the bridge-making and sense delimiting articulations of sound & sight together. We will examine the potency of sound in a world largely understood through its visualization as a world picture. Readings in sound studies, visual studies & media studies explore sound, sounds that evoke pictures, the forensics of sound, sound art, & films including *The Conversation*, *Blow Out & Amour*. Each faculty collaborator brings distinct interests to the course. WJT Mitchell's renowned theorization of images naturally extends to his theorizing the possibility of the sonic image. Artist Lawrence Abu Hamdan's commitment to the value of earwitnessing asks the listener to extend forensic knowledge to the very core of what it means to be a human being in the world. For the course, Hamdan will develop a workshop comprising a series of practical exercises that experiment with the conditions of testimony or claim making, enabling an exploration of how the law come to its truths and how can we use sonic imagination to trouble & contest established modes of enacting justice. Performance scholar, Hannah B Higgins, examines how musical notation, performance & sound bear on the relationships between sound & vision in recent art practices. An intervention from composer Janice Misurell-Mitchell will add a dimension of musical testimony to our investigation.

Instructor(s): W.J.T. Mitchell, Hannah Higgins, Lawrence Abu Hamdan Terms Offered: Autumn

Prerequisite(s): Open to all levels with consent of the instructors. All interested students should please email the instructor (wjtm@uchicago.edu) a one page statement of interest, explaining why they want to take the course, and what they will bring to it.

Equivalent Course(s): ARTV 40351, ARTV 20351, ARTH 32351, ENGL 22351, MAAD 12351, ARTH 22351

ENGL 42411. Marx and His Cultural Context. 100 Units.

This course provides students with an in-depth introduction to the work of Karl Marx, situating it within the nineteenth-century literary, cultural and political contexts that helped to shape his thought and its subsequent reception by later thinkers and theorists. Readings will include important works in nineteenth-century political theory; proto-sociological studies of the industrial workplace; novels of labor and class struggle; as well as Victorian anthropological studies of culture, religion, fetishism, and the origins of the family. (18th/19th)

Instructor(s): Zachary Samalin Terms Offered: Spring

Prerequisite(s): open to advanced undergraduates and MAPSS students with the consent of the instructor

ENGL 42412. Perspective as a Challenge to Art History. 100 Units.

Equivalent Course(s): SETH 32402, ENGL 22402, ARTH 32402, ARTH 22402

ENGL 42550. Reading Bleak House: Criticism / History. 100 Units.

Charles Dickens's great anti-law novel, *Bleak House* (1852-3), was formally daring and technically ambitious. Part mystery story, part comment on the age (Dickens called it his "Condition of England" novel), from its first appearance it attracted both enthusiasts and detractors among its vast, worldwide readership. In the late 20th and 21st centuries it has continued to provoke intense responses, generating a body of work that reflects the major trends in criticism and theory of the novel. In this course we will consider the novel in both its 19th-century contexts and in recent criticism. The aim is not only to read *Bleak House* - one of the great novels of the Victorian period - but to read readers of *Bleak House*, to think about the different ways the novel has been construed in different contexts, and to how it has shaped ongoing critical debates in, for example, narrative theory, historicism, formalism, and postcolonial literary criticism. (18th/19th)

Instructor(s): Josephine McDonagh Terms Offered: Winter

ENGL 43204. Coll: Capitalism & Climate Change-History, Society, Literature. 100 Units.

The concept of the Anthropocene introduces the idea of the human species as a geological agent, capable of altering the life supporting system of the whole planet through anthropogenic climate change. Paradoxically, the bad news of the Anthropocene is also a moment of intellectual exhilaration for the social sciences and humanities. The Anthropocene forces us to rethink some of the most fundamental concepts in scholarship, such as modernity, growth, justice, and scale in light of new pressing problems of carbon emissions, mitigation, and adaptation. We will approach these questions from a variety of perspectives, including ethics, history, science, and literature.

Equivalent Course(s): HIST 43203

ENGL 43250. The New Criticism. 100 Units.

n examination of primary works of The New Criticism, British and American. We will consider the theoretical variety and different critical practices of these loosely allied critics, who were often not allies at all. Authors to be studied: I.A. Richards, T.S. Eliot, F.R. Leavis, Kenneth Burke, John Crowe Ransom, Cleanth Brooks, Robert Penn Warren, W.K. Wimsatt, Yvor Winters, R. P. Blackmur, William Empson.

Equivalent Course(s): CMLT 36015, SCTH 36015

ENGL 43708. The Poetry and Prose of Thomas Hardy. 100 Units.

A Victorian and a Modernist, a rare master of the arts of fiction and poetry, Thomas Hardy outraged Victorian proprieties and helped to make 20th century literature in English possible. Close reading of four novels and selected early middle, and late poems by Hardy, with attention to the contexts of Victorian and Modern literary culture and society.

Instructor(s): Rosanna Warren Terms Offered: Winter. Course to be taught winter 2020

Note(s): For graduate students and advanced undergraduates.

Equivalent Course(s): SCTH 46011, FNLD 26011, ENGL 23708

ENGL 44202. Psychoanalysis, Literature, Film. 100 Units.

We will read major works by Freud, Melanie Klein, D.W. Winnicott, and Slavoj Žižek, among other psychoanalytic theorists, in conjunction with literary works such as Sophocles's Oedipus Rex, Shakespeare's Hamlet, Edgar Allan Poe's "The Purloined Letter," Joseph Conrad's Heart of Darkness, Henry James's The Turn of the Screw, and Rudyard Kipling's "Mary Postgate." The course will conclude with one or more of Alfred Hitchcock's films. Topics include the unconscious, dreams, childhood, the uncanny, desire, subjects and objects, mourning, and the death drive. Requirements: one paper 10-12 pages, joint presentations in class, and regular postings to the online discussion board.

Instructor(s): Maud Ellmann Terms Offered: Winter

Equivalent Course(s): GNSE 44202

ENGL 45327. Politics of Media: From the Culture Industry to Google Brain. 100 Units.

Media theory frequently focuses on issues of technology as opposed to, or at the cost of, politics and culture. This course reorients attention to the intersection of media and cultural theory. We begin by reviewing key media theories from the Frankfurt School and the Birmingham School. Following a historical introduction, we explore the contemporary field of cultural media theory as it has unfolded in both the humanities and the social sciences. Students will think through how the sites of race, class, gender, and sexuality might frame and always already influence the ways that we think of media - from the broadcast media of Adorno and Horkheimer's culture industry that included radio, film, and television to contemporary pointcasting that is made up of digital and networked technologies. Alongside readings in an expanded media theory, we will engage artistic and cultural works, including literature, films, television serials, smart phone apps, video games, social media, and algorithms. We also explore methodological differences in media studies between the humanities and the social sciences.

Instructor(s): Patrick Jagoda & Kristen Schilt Terms Offered: Winter

Prerequisite(s): Before enrolling, MA students should email Professors Jagoda or Schilt on what you bring and hope to get out of the seminar

Equivalent Course(s): CMST 67827, SOCI 50119, CDIN 45327, GNSE 45327

ENGL 45433. Book History: Methods, Practices, and Issues. 100 Units.

What is the history of the book? This course considers answers from literary scholars, historians, bibliographers, sociologists, and anthropologists over the past fifty years, using case studies from a variety of times, places, and textual traditions from the fifteenth century to the present to introduce the methods, practices, and issues of the field. This hands-on course meets in the Rosenthal Seminar Room in the Special Collections Research Center in Regenstein Library.

Instructor(s): Eric Slauter Terms Offered: Winter

ENGL 46751. Of Whiteness. 100 Units.

In his essay "The Souls of White Folk," WEB Du Bois asks, "But what on earth is whiteness that one should so desire it?" This course will explore a multiethnic cultural and theoretical archive that grapples with the patterned and partial irrationality of this excessive racial desire. How does whiteness structure the racial/social field? What mechanisms regulate-or have regulated-populations' access to and desire for it? (18th/19th)

Instructor(s): Christopher Taylor Terms Offered: Spring

Equivalent Course(s): CRES 46751

ENGL 46901. Narratives Suspense in European/Russian Lit/Film. 100 Units.

This course examines the nature and creation of suspense in literature and film as an introduction to narrative theory. We will question how and why stories are created, as well as what motivates us to continue reading, watching, and listening to stories. We will explore how particular genres (such as detective stories and thrillers) and the mediums of literature and film influence our understanding of suspense and narrative more broadly. Close readings of primary sources will be supplemented with critical and theoretical readings. Literary readings will include work by John Buchan, Arthur Conan Doyle, Feodor Dostoevsky, Graham Greene, Bohumil Hrabal, and J.M. Coetzee. We will also explore Alfred Hitchcock's take on 39 Steps and the Czech New Wave manifesto film, *Pearls of the Deep*. With theoretical readings by: Roland Barthes, Viktor Shklovsky, Erich Auerbach, Paul Ricoeur, and others.

Equivalent Course(s): ENGL 26901, REES 23137, HUMA 26901, CMST 35102, CMLT 22100, CMST 25102, REES 33137

ENGL 47102. Dissident Lit. 100 Units.

This seminar will explore the literature and history of "the dissident," a central figure of late 20th-century and 21st-century human rights politics. Through our readings of novels, essays, and criticism drawn from a range of traditions (from the US and Latin America to Russia and East-Central Europe) we will consider both the possibilities and dilemmas of literary dissidence.

Equivalent Course(s): ENGL 27102, HMRT 37102, HMRT 27102

ENGL 48000. Methods and Issues in Cinema Studies. 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard.

Instructor(s): S.Skvirsky Terms Offered: Autumn

Equivalent Course(s): CMST 40000, MAPH 33000, ARTH 39900

ENGL 48502. Henry James and the Question of Evil: The Portrait of a Lady and the Turn of the Screw. 100 Units.

Equivalent Course(s): SCTH 38502

ENGL 48700-48900. History of International Cinema I-II.

This sequence is required of students majoring in Cinema and Media Studies. Taking these courses in sequence is strongly recommended but not required.

ENGL 48700. History of International Cinema I: Silent Era. 100 Units.

This course provides a survey of the history of cinema from its emergence in the mid-1890s to the transition to sound in the late 1920s. We will examine the cinema as a set of aesthetic, social, technological, national, cultural, and industrial practices as they were exercised and developed during this 30-year span. Especially important for our examination will be the exchange of film techniques, practices, and cultures in an international context. We will also pursue questions related to the historiography of the cinema, and examine early attempts to theorize and account for the cinema as an artistic and social phenomenon.

Instructor(s): A.Field Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): CMST 28500, ARTH 38500, CMLT 22400, MAAD 18500, ARTV 20002, CMLT 32400, MAPH 33600, ARTH 28500, ENGL 29300, CMST 48500

ENGL 48900. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, CMST 48600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, MAAD 18600, REES 45005

ENGL 48900. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, CMST 48600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, MAAD 18600, REES 45005

ENGL 50000. Pedagogies of Writing. 100 Units.

Pedagogies of Writing is a training course and practicum for graduate students hired to teach for the Writing Program. The course combines instruction in principles for effective academic writing and workshops focused on written commentary, instruction techniques, and small-group seminar design.

ENGL 50205. Contemporary Critical Theory 1920-Present. 100 Units.

This course (the second half of the required Comparative Literature introductory sequence) roams the cultural landscape transformed by Freud, Saussure, Shklovsky, the First World War, and the Russian Revolution.

Readings from psychoanalytic, formalist and Marxist criticism, from the corresponding heresies, and their successors. The aim throughout is to locate theoretical texts in the polemical situations to which they originally were addressed, and others in which they subsequently were invoked.

Instructor(s): Haun Saussy Terms Offered: Winter

Equivalent Course(s): CMLT 50205

ENGL 50300. Principles of Teaching Writing. 100 Units.

Principles of Teaching Writing (offered in Autumn only) is for graduate students who have been hired to teach Academic and Professional Writing (The Little Red Schoolhouse).

ENGL 50301. Catharsis, Tedium, and other Aesthetic Responses. 100 Units.

This seminar examines the ramifications of catharsis, tedium and other forms of aesthetic response, in other words the relationship between effect and affect in and in response to performance, live, mediated and in reading. Beginning with Aristotle and present day responses to catharsis, we will investigate the kinds of aesthetic response invoked by theories of tragedy (esp Hegel), realism (authority, attachment and estrangement in Lukacs, Adorno, Brecht, Benjamin), as well as theories of pleasure (Barthes, Derrida, Cixous) and tedium (Heidegger). We will also explore tedium through text and audio of *The Hunchback Variations* by local playwright Mickle Maher. We will conclude with, the potential and limitations of catharsis as an appropriate response to testimonial narrative in text and film during and after the dictatorship in Chile. An essential part of the discussion will be the problem of translating key theoretical terms, not only from one language to another but also from one theoretical discourse to another.

Instructor(s): Loren Kruger Terms Offered: Autumn

Equivalent Course(s): TAPS 50300, CMLT 50300

ENGL 50400. Teaching Undergraduate English (Pedagogy) 100 Units.

This course seeks to provide a setting in which graduate students, prior to their first formal teaching assignment at this institution, can explore some of the elements of classroom teaching of English. The course, for purposes of focus and with the recognition that not all our students will teach at the graduate level, is intended primarily as an introduction to teaching undergraduate English. While emphasizing the practical issues of classroom instruction, the class includes theoretical readings on pedagogy, which help the students to reflect on and speak to their practice. The course will provide significant opportunities in conceptualizing, designing, and running a college-level course in English e.g., the opportunity to lead a mock-classroom discussion, to construct a sample syllabus, to grade a common paper.

Instructor(s): Benjamin Morgan Terms Offered: Autumn

Prerequisite(s): This course is restricted to second- and third-year English Ph.D. students only; other students need consent of instructor.

Note(s): This course is restricted to second- and third-year English Ph.D. students only; other students need consent of instructor.

ENGL 51000. PhD Colloquium. 100 Units.

This course provides a theoretical and practical introduction to advanced literary studies. Readings are drawn from four modes of inquiry that helped to produce our discipline and that continue to animate scholarship in the present - namely, philology, criticism, aesthetics, and genealogy. In addition, participants will complete several short assignments meant to familiarize them with common skills and practices of literary studies.

Instructor(s): Adrienne Brown Terms Offered: Autumn

Note(s): This course is intended for first-year English PhD students only; other interested students need consent of instructor.

ENGL 51023. Narrative in Crip and Queer Studies. 100 Units.

This course focuses on Crip and Queer theories of time as ways to get at varied understandings of temporality that destabilize the wobbly formation of "normal" and produce non-linear forms of life as narratable. By focusing on narrative unfolding, circling back, slowing down, and the precarity of the future, the course proceeds by putting two distinct strands of Queer and Crip Theory in conversation. We begin with what theorists have conceptualized as a distinct queer temporality (e.g. Halberstam, Freeman) alongside its complement, crip time (McRuer). We then turn to questions about queer futurity alongside critiques within Crip Theory that fully embrace the future as a way of embracing the present. Following these two strands, we see the productive dynamism and the tension between crip and queer temporalities in envisioning non-normative, non-heterosexual life.

Instructor(s): Sarah Pierce Taylor Terms Offered: Spring

Equivalent Course(s): RLVC 51000

ENGL 51225. Sources of Critical Theory. 100 Units.

This course is designed to give students a broad and rapid introduction to the philosophical and other sources that inform contemporary literary and critical theory. We will cover a lot of ground very quickly. The variety of humanism at issue in our work will be the sort that informs common sense or, as one of our authors might put it, ordinary understanding of the things that strike many of us as obvious about ourselves and other people. The critique will not make anything stop seeming obvious. But it will provide some tools for thinking differently about contemporary commonsense understandings of human life. We will conclude by seeing the way this material shapes work by two prominent recent critics, Slavoj Žižek and Lauren Berlant.

Instructor(s): C. Vogler Terms Offered: Autumn

Equivalent Course(s): PHIL 51225

ENGL 52000. Research Paper Proseminar. 100 Units.

Required for students in their 2nd year of the English Ph.D. program. In this class, we will perform substantial revisions of a previous seminar paper.

Instructor(s): Zachary Samalin Terms Offered: Spring

Prerequisite(s): English Ph.D. students only.

ENGL 52102. Hemispheric Studies. 100 Units.

This course examines the Hemispheric Studies approach to the literature of the Americas, which combines a commitment to comparativism with attention to the specificities of local contexts ranging from the Southern Cone to the Caribbean to North America. We'll investigate debates about the theories and uses of a method that takes the American hemisphere as its primary frame, yet does not begin with the U.S. as the default point of departure; and the conceptual and political limitations of such a method. Theories drawn from American Studies, Canadian Studies, Caribbean Studies, Latin American Studies, Poetry and Poetics, Postcolonial Studies, and U.S. Latinx Studies will be explored in relation to literature primarily written in the 20th and 21st centuries by writers residing throughout the Americas. In the last part of the course, we'll take meta-theoretical look at the development of Hemispheric Studies and the politics of academic field formation. No knowledge of Spanish or French is required. (18th/19th, 20th/21st)

Instructor(s): Rachel Galvin Terms Offered: Autumn

Equivalent Course(s): LACS 52102

ENGL 52502. Literary Theory: Auerbach's Mimesis. 100 Units.

This seminar will explore Western literary criticism from Plato to the late eighteenth-century conceived of as a prehistory of comparative literature as a discipline. The course will take as its particular lens the critical treatment of epic in some of the following authors: Plato, Aristotle, Longinus, Horace, Montaigne, Tasso, Giraldi, Sidney, Boileau, Le Bossu, St. Evremond, Dryden, Addison, Voltaire, Fielding, and Burke. The course will also examine both twentieth-century comparative approaches to epic (e.g., Auerbach, Curtius, Frye) and more recent debates within comparative literature with an eye to continuities and discontinuities in critical method and goals.

Instructor(s): David Wray Terms Offered: Autumn

Equivalent Course(s): CMLT 50105

ENGL 53000. Dissertation Proposal Proseminar. 100 Units.

Required for students in their 4th year of the English Ph.D. program and all English Ph.D. students who have not yet entered candidacy.

Instructor(s): Deborah L. Nelson Terms Offered: Autumn Winter

Prerequisite(s): English Ph.D. students only.

ENGL 53103. The Uses of Fiction: Poetry and Philosophy in Early Modernity. 100 Units.

This course attempts to unpack the ancient quarrel between poetry and philosophy by examining how each discourse draws on the power of poesis in different ways. We will approach this topic by examining four discourses: first, formal treatments of poetry and poetics from antiquity (Plato, Aristotle) through the late Renaissance (Sidney, Tasso, Milton); second, explicitly fictional thought experiments employed by philosophers (Avicenna, Ibn Tufayl, Descartes, Locke, Condillac); third, poetry explicitly invested in the making of fictional worlds (Spenser, Milton, Cavendish); and fourth, recent scholarship on poetry's relationship to philosophy (Stanley Rosen, Victoria Kahn, Ayesha Ramachandran, Russ Leo, Guido Mazzoni, and others. (Med/Ren)

Instructor(s): Timothy Harrison Terms Offered: Autumn

ENGL 54104. On Man: Sociogenesis and Subjectivation. 100 Units.

In this course, students will read and engage with how "Man" has been conceptualized and critiqued in certain areas of philosophy and critical theory. The class begins with Man's emergence in colonial contexts, with readings from Frantz Fanon, Homi Bhabha, and Sylvia Wynter. Students will also contend with Man's intersubjectivity with the "Subject" with readings from Michel Foucault, Judith Butler, Jose Munoz, and Hortense Spillers. Memoirs, novels, and auto-documentary films supplement this courses' exploration of the genealogies of "Man." (20th/21st)

Instructor(s): C. Riley Snorton Terms Offered: Winter

Equivalent Course(s): GNSE 54104, CRES 54104

ENGL 54308. Economic Humanities: 19th C British Literature and Inequality. 100 Units.

Do the humanities have a role in thinking inequality? In the nineteenth century, political economy, the precursor to economics, was largely a humanistic method focused on questions of distribution rather than efficiency as is often true today. Recent new work in various fields as well as the resuscitation of political economy itself suggests Humanities may be reinserting itself into the inequality conversation. In this class, we will explore the shift from political economy to economics in the nineteenth century, the methodological revisions it occasioned and, inspired by new multidisciplinary thinking about economics, consider if this earlier moment can still help us think about inequality. We will read the fiction of Dickens, Hardy, Wells, Eliot, the political economy and economics of Smith, Mill, Jevons, Marshall, Veblen and modern theorists Orlean, Yuran, Feher, Nussbaum, Piketty. (18th/19th)

Instructor(s): Elaine Hadley Terms Offered: Winter

ENGL 55000. Advanced Writing for Publication Proseminar. 100 Units.

Intended for students in the 5th year of the English Ph.D. program or above, this course will be a venue for revising a significant seminar paper to make it suitable for publication.

Instructor(s): Sianne Ngai Terms Offered: Winter

Prerequisite(s): This course is restricted to English Ph.D. students only; other students need consent of instructor.

ENGL 55105. Theories of Racial Perception. 100 Units.

We tend to talk about racial perception as a singular and instantaneous act, but it is perhaps better understood as a complex series of procedures involving judgment, reading, rationalization, instinct, and conjecture that normally go undescribed. In this course we will read theory, criticism, and literature considering the varying combinations of techniques, processes, structures, and convictions that allow a subject to believe they are having an experience of race. How have writers variously learned to describe and call into question the mechanics of racial perception? And is imagining the end of racial perception the same as imagining the end of race? Exploring works from a variety of traditions, eras, and genres, we will trace investigations into race's perception as a color, a lack, a sense, a sound, a shape, a pathology, a habit, a surface, a depth, and a spell.

Instructor(s): Adrienne Brown Terms Offered: Winter

ENGL 55603. The Global Plantation. 100 Units.

From its emergence in the late-medieval Mediterranean, to the slave societies of the New World, through its late colonial heritage in Africa, Asia, and the Pacific, the plantation has been a paradigmatic institution of racial-capitalist modernity. Through a range of texts that includes slave narratives, novels, political economy, sociological studies and recent histories of capitalism, this course explores how the plantation opened a vexed problem-space in which concepts central to the modern world (such as sovereignty, freedom, and labor) emerged, were debated, and continuously refigured. While the plantation is frequently figured as an institution of the past, this transnationally and transhistorically oriented course will examine a set of thinkers who argue for the aliveness of the plantation's present in the shaping of political, economic, and social trajectories in the postcolonial world.

Instructor(s): Christopher Taylor & Adam Getachew Terms Offered: Spring

Equivalent Course(s): ANTH 50405, PLSC 56300, CDIN 56300, CRES 56300

ENGL 56000. Job Market Proseminar. 100 Units.

Required for students in their 6th year of the program and open to all English Ph.D. students on or preparing for the academic job market.

Instructor(s): Julie Orlemanski Terms Offered: Autumn Winter

Prerequisite(s): English Ph.D. students only.

ENGL 56675. Violence, Trauma, Repair. 100 Units.

This course offers an interdisciplinary encounter with three concepts of abiding interest to scholars in the humanities and humanistic social sciences: violence, trauma, and repair. We begin with theoretical considerations about violence and its role in the founding of new political orders. The second part tackles the question of trauma, a concept that has achieved a remarkable prominence across many disciplines. But this ascendance also brought with it a number of critiques, among them that the concept is often deployed in apolitical and romanticized terms. We take on these critiques by bringing into conversation works from varying contexts: the Rwandan genocide, the Transatlantic Slave Trade, the Holocaust and Apartheid South Africa. The final part focuses on the consequences of violent acts and notions of repair formulated in the language of trauma, suffering and human rights. We ask: What is the operating rationale in this line of thinking about the contemporary world? How has it emerged, and through what kinds of institutions, interventions and techniques does it operate and extend its power across the globe?

Instructor(s): Sonali Thakkar & Natacha Nsabimana Terms Offered: Spring

Prerequisite(s): Consent required: Email Professor Nsabimana a paragraph long description about what you bring and what you hope to get out of this seminar.

Equivalent Course(s): CRES 56675, CDIN 56675, ANTH 52510, HMRT 50005

ENGL 58500. The Middle Ages in Midcentury Thought. 100 Units.

This seminar will explore the role of the Middle Ages (its literature, art, philosophy, theology) in the intellectual culture of the years during and just after WWII. Readings will pair midcentury thinkers with their medieval interlocutors. For example, Simone Weil will be read alongside texts in the tradition of medieval mysticism; Hannah Arendt, alongside Augustine. Other intellectual figures may include: Erich Auerbach, Ernst Robert Curtius, Norbert Elias, Franz Fanon, Ernst Kantorowicz, Paul Zumthor, Erwin Panofsky, Leo Spitzer, Hans-Georg Gadamer, and Johan Huizinga. (Med/Ren, 20th/21st)

Instructor(s): Benjamin Saltzman Terms Offered: Spring

Equivalent Course(s): GRMN 48519, SCTH 58500

ENGL 59305. Tedium, Catharsis and other Aesthetic Responses. 000 Units.

Equivalent Course(s): CMLT 50301

ENGL 59401. Realism, Social Modernism: Aesthetics and Politics Between the Wars. 100 Units.

The theoretical influence of arguments in the 1920s and 1930s about the relative value of realism and modernism is well known, but the entwinement of theory with cultural production and political debates is less so. This intensive reading course will attempt to historicize theory between the world wars--or more specifically between Bolshevik and German revolutionary responses to the first war and Popular Front against the rise of Fascism leading to the second--by reevaluating the work relatively familiar theorists such as Benjamin, Lenin, and esp. Lukacs in the light of their interlocutors, in fiction, film, and drama Brecht, Gladkov, Gorki, Pudovkin, Eisenstein, Dovzhenko, Seghers, Sholokhov, Christa Wolf, Konrad Wolf, Frank Beyer and their counterparts in America, the Living Newspaper, Film and Photo League, writers for New Masses as well as in theory Bloch, Eisler, Zhdanov, Kenneth Burke, Mike Gold, John Howard Lawson, among others. Essential texts are available in English but working knowledge of German (or Russian) and/or marxist theory very helpful.

Instructor(s): Loren Kruger Terms Offered: Autumn

Equivalent Course(s): GRMN 43700, CMLT 59400, SCTH 59400, TAPS 59400, CMST 67100

ENGL 59900. Reading and Research: English. 100 Units.

This course is intended for graduate students in the English doctoral program who can best meet program requirements by study under a faculty member's individual supervision. The subject, course of study, and requirements are arranged with the instructor.

ENGL 65008. Materialities. 100 Units.

In the first instance, this course surveys a range of thinking (by Elizabeth Grosz, Karen Barad, and Rosi Braidotti, among others) that has gone under the banner of 'new materialism,' emphasizing the vitality of matter and working to reject anthropocentrism. In the second instance, the course focuses on textual materialism within literary studies (both Susan Howe and Derrida, for instance), ultimately asking how we might begin to understand material texts within a new materialist frame. The widest frame for the course, though, will be provided by the question of how the materialisms of our moment (across fields and disciplines) can be understood through the analytics provided by historical materialism. We will read literary texts from different periods, and we will conduct at least two sessions in Special Collections. (20th/21st)

Instructor(s): Bill Brown Terms Offered: Spring

ENGL 70000. Advanced Study: English Language & Literature. 300.00 Units.

Advanced Study: English Language & Literature



DEPARTMENT OF GERMANIC STUDIES

Department Chair

- David Wellbery

Director of Undergraduate Studies

- Margareta Ingrid Christian

Director of Graduate Studies

- Florian Klingner

Professors

- David J. Levin
- Eric L. Santner
- David E. Wellbery
- Christopher J. Wild

Associate Professors

- Florian Klingner

Assistant Professors

- Margareta Ingrid Christian
- Sophie Salvo

Senior Lecturers

- Catherine Baumann
- Kimberly Kenny

Lecturers

- Colin Benert, German
- Jessica Kirzane, Yiddish

Emeritus Faculty

- Reinhold Heller
- Samuel Jaffe
- Kenneth J. Northcott
- Hildegund Ratcliffe

Affiliated Faculty

- Alice Goff, Ph.D., Assistant Professor of German History and the College
Interests: Cultural and intellectual history 1750-1850, museums and collecting, aesthetics, looting, historical reception in the GDR.
- Philip V. Bohlman, Ph. D., Mary Werkman Professor of the Humanities and of Music; Chair of the Committee on Jewish Studies
Interests: German-Jewish and German-American ethnomusicology; theory and history of folksong.
- John W. Boyer, Ph. D., Martin A. Ryerson Distinguished Service Professor of History; Dean of the College
Interests: German and Austrian history, 18th century to the present; religion and politics in modern European history; European urban history.
- Daniel Brudney, Ph. D., Associate Professor of Philosophy
Interests: Marx, German philosophy, Frankfurt School.
- James Conant, Ph. D., Professor of Philosophy
Interests: Kierkegaard, Heidegger, Wittgenstein.
- Kathleen Conzen, Ph. D., Professor of History
Interests: German-American history and the history of international migration.
- Constantin Fasolt, Ph. D., Karl J. Weintraub Professor of History; Master of the Social Sciences Collegiate Division; Deputy Dean of the Division of the Social Sciences; Associate Dean of the College
Interests: Early modern German history.
- Michael Forster, Ph. D., Professor of Philosophy

Interests: Herder, Hegel.

- Michael Geyer, Ph. D., Samuel N. Harper Professor of German and European History
Interests: German history of the 19th and 20th centuries with special interest in contemporary German and European affairs.
- Andreas Glaeser, Ph. D., Associate Professor of Sociology
Interests: Theories of culture and identity; with reference to Germany mostly post-unification controversies, social memory and architecture, reality construction processes among civil servants in authoritarian regimes.
- Gary Herrigel, Ph. D., Associate Professor of Political Science
Interests: Political economy of advanced industrial states (Germany, USA, Japan), German political and industrial history in the 19th and 20th centuries, social and political theory.
- Berthold Hoeckner, Ph. D., Associate Professor of Music and the Humanities
Interests: 19th century Austro-German music; Lyrik und Lied; Romantische Musikästhetik; Wagner; Adorno and music.
- Loren Kruger, Ph. D., Professor, Department of English; Department of Comparative Literature; Committee on African Studies; Committee on Cinema and Media Studies; Committee on Theatre and Performance Studies
Interests: German literature 18th century to present (esp. drama); GDR and contemporary Germany; Brecht, Heiner Müller, Marxism; the Cold War; Frankfurt School; "Das andere Deutschland."
- Jonathan Lear, Ph. D., John U. Nef Distinguished Service Professor at the Committee on Social Thought and in the Department of Philosophy
Interests: Freud, Wittgenstein, Heidegger.
- Francoise Meltzer, Ph. D., Mabel Greene Meyers Professor of French, Comparative Literature, and the Divinity School; Acting Director of the Franke Institute for the Humanities
Interests: German romanticism, philosophy.
- Paul Mendes-Flohr, Ph. D., Professor of Modern Jewish Thought in the Divinity School, Committee on Jewish Studies; Associate Faculty in the Department of History
Interests: German-Jewish intellectual history.
- Glenn W. Most, Ph. D., Visiting Professor in the Committee on Social Thought
Interests: German literature and philosophy since the 18th century.
- Robert B. Pippin, Ph. D., Raymond W. and Martha Hilpert Gruner Distinguished Service Professor; Committee on Social Thought and Department of Philosophy
Interests: Kant; German Idealism; Nietzsche; Heidegger; Modernity Theory.
- Moïse Postone, Ph. D., Raymond W. and Martha Hilpert Gruner Distinguished Service Professor of History; Committee on Jewish Studies
Interests: Marx, Frankfurt School, contemporary European social theory, contemporary German affairs (with particular focus on issues of anti-semitism and the relation of the Nazi past to postwar German society and culture).
- Robert Richards, Ph. D., Morris Fishbein Professor of the History of Science and Medicine; Professor in the Departments of Philosophy, History, Psychology, and the Committee on Conceptual and Historical Studies of Science
Interests: German Romanticism, history and philosophy of science.
- Jerrold Sadock, Ph. D., Glen A. Lloyd Distinguished Service Professor, Department of Linguistics
Interests: Germanic languages (Scandinavian, Yiddish).
- Malynne Sternstein, Ph. D., Associate Professor of Slavic Languages and Literatures
Interests: Central European Studies, Literary, Psychoanalytic and Cultural Theory; Art and Media Theory
- David Tracy, Ph. D., Andrew Thomas Greeley and Grace McNichols Greeley Distinguished Service Professor of Catholic Studies and Professor of Theology and the Philosophy of Religion in the Divinity School; Committee on Social Thought
Interests: 19th century German philosophy and theology.

WEBSITE

<https://german.uchicago.edu/>

OVERVIEW

The graduate program in Germanic Studies at the University of Chicago stresses an interdisciplinary model of study, long an emphasis at this University, which allows students to construct fields of research in fresh ways. In order to draw on the University's strengths, both inside and outside the department, students are encouraged to work not only with departmental and affiliated faculty but with faculty throughout the University whose courses are of relevance to their particular interests.

The University's Workshops (non-credit, interdepartmental seminars that meet biweekly) offer a further avenue for interdisciplinary work. Students are also encouraged to participate in the department's colloquia and lecture/discussions.

Language courses taught in the department include German, Norwegian, and Yiddish.

APPLICATION AND FINANCIAL SUPPORT

Applicants to the Department of Germanic Studies should have a solid background in German language and culture. Students with undergraduate degrees in other fields are encouraged to apply, but must include with their application a list of relevant German/Germanic courses as well as a letter of recommendation from a faculty member able to evaluate their level of German language competency. Such students will be asked to make up deficiencies in their language preparation before entry into the graduate program. All entering students whose native language is not German are required to pass an ACTFL (American Council on the Teaching of Foreign Languages) oral proficiency examination in German during their first quarter in the program.

Admission to the department is competitive. Fellowships for a small number of highly qualified students includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component. These awards are renewable for up to six years. The Department of Germanic Studies has some funds to support students in summer projects, travel, and research. In addition, the Norwegian Culture Program Endowment Fund provides some money for research and travel support for students interested in Norwegian language and culture. Finally, competitive fellowships are available for a final year of writing the dissertation.

Applications to the program must include a writing sample of not more than twenty pages, in German or English; Graduate Record Exam scores from the general examination; TOEFL (Test Of English as a Foreign Language) scores, if applicable; and three letters of recommendation.

The application process for admission and financial aid for all graduate students is administered through the divisional office of the Dean of Students (<http://humanities.uchicago.edu/prospective>). The Application for Admission and Financial Aid, with instructions, deadlines and department-specific information is available on the **Graduate Student Online Application page**. Please note that the application and all supporting materials are to be submitted online. Questions pertaining to admissions and aid should be directed to: humanitiesadmissions@uchicago.edu (humanitiesadmissions@uchicago.edu) or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu/>, or call them at (773) 702-7752.

DEGREE REQUIREMENTS

The following is an outline of the main features of the graduate program. If you need additional information, please write directly to the Department of Germanic Studies (<http://german.uchicago.edu/graduate>).

Students in the Department of Germanic Studies are admitted into the Ph.D. program of study. Students interested in a one-year interdisciplinary Master's program in Germanic Studies should contact the Master of Arts Program in the Humanities (<http://humanities.uchicago.edu/depts/maph>). Study towards the M.A. degree, normally completed after the first year, is intended as an introductory period, a time for both faculty and students to decide on the suitability of an extended graduate program. All students entering the Ph.D. program with a master's degree from another institution will undergo an informal evaluation at the end of their first year in the department to assess their progress and to plan their further course of study.

DEGREE OF MASTER OF ARTS

COURSE WORK

Three quarters of course work and a total of eight courses are required during the first year of study. These include the mandatory pedagogy course ("Acquisition and Teaching of Foreign Languages"). A completed M.A., which includes the pedagogy courses and a "superior" rating on the German oral proficiency test, are prerequisites for teaching appointments. Besides the pedagogy course, students must take at least one course each quarter from departmental faculty, and at least two additional courses from departmental faculty during the year. The remaining courses could contain little or no Germanic material and may be taken primarily for methodological, theoretical, or historical interest. Course selections must receive the approval of the Director of Graduate Studies (<http://german.uchicago.edu/graduate>). All courses must be taken for a letter grade. We expect students to develop a broad historical sense of German culture through coursework as well as their own background reading. The primary aim of the master's year is for students to explore a variety of materials, approaches and problems.

LANGUAGE EXAMINATION

Students who do not achieve a "superior" rating on the oral proficiency examination in German (to be taken early in their first quarter) will be advised to undertake further language training or to take other steps to improve their skills; they will be re-tested during the second quarter.

M.A. EXAM

The purpose of the M.A. exam is to test students' ability to work with concepts central to the discipline, to articulate literary-historical arguments, to discuss significant patterns that extend beyond individual texts, and to articulate how such concepts relate to the interpretation of individual works. In addition, the exam establishes a useful foundation of knowledge upon which the student can build in later studies.

The examination takes place in the eighth week of Spring Quarter of the student's first year of graduate study. Its basis is a list of some twenty to twenty-five texts selected by the student in consultation with the two members of the student's M.A. exam committee. (The committee—consisting of two members of the department's core faculty—is to be designated by the Director of Graduate Studies (<http://german.uchicago.edu/graduate>) in consultation with the student.) This list reflects a category of literary research such as a genre, a period, or a general concept bearing on a mode of writing. Examples of the former might be "The Bourgeois Tragedy" or "Modern Urban Short Prose" or "The Elegy." Periods can be variously conceived: Enlightenment, Realism, Weimar Republic. General concepts are more abstract categories such as "narrative" or "performance" or "argumentative writing." Lists could also be organized along thematic lines or in terms of a traditional narrative subject. The point is that the list be designed so as to sustain a process of coherent intellectual inquiry. In addition to the 20-25 primary texts, the list includes a representative cross-section of secondary literature addressing the topic under study.

The examination itself has two components:

- a) a take-home written examination, and
- b) an oral examination approximately one hour in length.

The take-home component consists of three essays (of two and one half, never more than three double-spaced pages) written in answer to questions devised by the faculty. These questions offer the student an opportunity to demonstrate her/his ability to explore various intellectual issues raised by the list as a whole as well as by specific works on the list. Students will receive these questions on Friday morning of the eighth week of classes and hand in their completed essays by 5:00 p.m. the following Monday. The oral examination is devoted to a critical discussion of the students' three essays as well as to works included on the list but not addressed in the written part of the examination. It will take place one week after the written exam. Following a forty-minute discussion of the essays, the student and the faculty examination committee will assess the student's overall progress, including course work.

A crucial aspect of the M.A. examination is planning and advising. Students should choose their examiners and have one planning meeting with each examiner by the eighth week of Autumn Quarter. Students should choose examiners and design the lists with a view to the seminars they plan to attend throughout the year. Students must submit their lists for approval at the end of the fourth week of Winter Quarter. Two weeks after submission, they should meet with their examiners to discuss preparation for the exams. During Spring Quarter, students should meet with their examiners twice prior to the exam in order to discuss questions arising from their readings. Of course, throughout the process students are encouraged to discuss questions arising from their readings with other faculty members, both inside and outside the Department of Germanic Studies.

First Year: Time Schedule for M.A. Exam

- Fall, Week 8 - Choose examiners
- Winter, Week 4 - Submit exam list for approval
- Winter, Week 7 - Arrange to meet with examiners to discuss exam preparation
- Spring, Week 8 - Written exam
- Spring, Week 9 - Oral exam

THE DEGREE OF DOCTOR OF PHILOSOPHY

The Ph.D. phase of study will be self-designed to a greater extent than the M.A. phase. Students who enter with an M.A. from another university will be required to take one pedagogy course in their first year ("Acquisition and Teaching of Foreign Languages"). This requirement may be waived by the department if a student can demonstrate that equivalent work was successfully completed at another institution. Completion of the course (or a departmental waiver), together with a "superior" rating on the oral proficiency interview in German taken early in the first quarter (or re-taken later if necessary), are prerequisites for teaching appointments.

COURSE WORK: Students will establish that balance of course work and individual preparation that best suits their intellectual agenda. Course selections, however, must be approved by the director of graduate studies. A minimum number of eight courses over two years, not including the pedagogy course, is required. All of these courses must be taken for credit. Six must be taken for a letter grade. The remaining two may be taken Pass/Fail. Typically, the two post-M.A. years (during which students will also be teaching) will look as follows: two seminars each quarter the first year; at least one seminar each quarter for the fall and winter quarters of the second year; exams in the spring quarter of the second year. In this way students will have ample time during the second Ph.D. year to prepare for the exams.

LANGUAGE EXAMINATION: All students are required to pass one university foreign language reading examination before taking their Ph.D. oral exams. The choice of language should be made in consultation with the director of graduate studies. Exams are administered by the Chicago Language Center.

Ph.D. EXAMINATIONS: The exam focuses on a small archive of literary, philosophical, and literary critical works (approximately 50 works) established by the student. This "major field list" should be organized around a broad topic that will in many cases anticipate the larger field within which the dissertation project will be situated. Some examples from previous exams: "Discourses of Madness from Kant to Musil," "Worldly Provincialism: German Realism 1850-1900," and "The Aesthetics of Sacrifice in Postwar German Literature and Art." Works on the list should be grouped into clusters according to categories and questions relevant to the topic. These criteria should be expressly formulated in the list. Students are encouraged to meet with as many faculty members as possible as they work on these materials. In consultation with the director of graduate studies, they should arrange for an exam committee of three faculty members: two faculty members (normally both members of the department) to compose and evaluate the written examination questions, and a third faculty member (from either departmental or resource faculty) to serve as an additional examiner for the oral exam. At the beginning of the fall quarter of the second Ph.D. year, students will submit a preliminary exam list to the faculty committee they have chosen and to the director of graduate studies.

The four-hour, open-book, written exam will normally be taken around the seventh week of spring quarter. Five weeks prior to the exam, each student will submit to the exam committee and to the director of graduate studies a final draft of the list. As noted, the list should be organized by way of the categories and questions that indicate what the students considers to be the salient issues animating the different clusters of texts. Faculty will use this list as a guide in preparing the exam. Within two weeks of the exam, the full committee will meet with the student for an hour-long discussion that will encompass the exam and plans for the dissertation. Students should work on their dissertation proposals over the summer and schedule the formal proposal defense at the beginning of the fall quarter of the third Ph.D. year. For further details regarding the Ph.D. exams, students are encouraged to consult with the director of graduate studies.

To summarize, the second Ph.D. year will normally flow in the following way. In the fall quarter, the student establishes the exam committee in consultation with the director of graduate studies. A preliminary list is submitted by fifth week of the quarter. The winter quarter is dedicated to reading and exam preparation. By the second week of spring quarter, the final list (articulated into clusters of texts) is submitted to the committee. The written exam is taken in the second half of the quarter, typically around the seventh week. Within two weeks of the written exam, the student meets with the committee for an hour-long discussion of the exam and dissertation plans. The summer after the exam is dedicated to elaborating the dissertation proposal. The final proposal is due no later than one quarter (not including summer) after passing the Ph.D. exam.

DISSERTATION PROPOSAL: Within three weeks of the Ph.D. exam, a student must identify a primary dissertation advisor (in some cases there will be two co-advisors). A full dissertation committee of three members will be established in consultation with the advisor. The committee need not be identical with the exam committee and there is always the possibility that the dissertation committee and primary advisor(s) will change over the course of the project (it may turn out, for example, that another faculty member proves to be more engaged with the primary materials of the dissertation). The proposal itself ought not attempt to predict the final conclusions of the project before the research is fully under way. Instead, it should seek to divide the project into subordinate questions and to rank the parts of the project in terms of priority. It should include a preliminary bibliography and a potential chapter structure, and also indicate a rough timetable for the research and writing of the dissertation. The proposal of approximately 20-25 pages should be problem-driven and question-oriented, and should contextualize the project within relevant scholarly debates. The student will discuss the project in a proposal defense with the dissertation committee, to be scheduled in consultation with the primary advisor and the departmental administrator. This will typically be done one quarter (not including summer) after the Ph.D. examination. Students must file copies of their exam lists and proposal with the department administrator.

SYLLABI PROPOSALS: During the third summer of the Ph.D. program, students will compose two syllabi, one for an upper-division undergraduate class and one for a graduate seminar (consultations with faculty about the syllabi should already have begun in the spring quarter). These syllabi may overlap to some extent with the dissertation project but should ideally represent other areas of interest and developing expertise. They may be designed as courses in translation, courses taught in German, or courses requiring reading knowledge of German. In many cases students will wish to submit one of these syllabi for the annual Tave competition in the winter quarter. (The Stuart Tave Teaching Fellowship allows graduate students to teach a free-standing, self-designed undergraduate class.) The primary advisor(s) of the dissertation will meet with the student in the course of the fall quarter to discuss and evaluate the syllabi.

WRITING THE DISSERTATION: After the proposal has been approved by the readers, the student should plan on spending the remainder of that year researching and reading. Some students may spend this time away from campus; others may choose to remain in Chicago to work closely with their committee. Students are strongly encouraged to try to complete the dissertation during the sixth year. All students should complete the dissertation by the end of the fall quarter of their seventh year.

TEACHING IN THE COLLEGE

Graduate students in the Department of Germanic Studies at the University of Chicago will enter the job market with a solid basis in current pedagogical theory and practice as well as a range of teaching experiences in a variety of classroom settings. Teaching in the undergraduate language program is an integral part of the graduate program.

Before they begin teaching, graduate students must participate in a graduate seminar on pedagogy ("Acquisition and Teaching of Foreign Languages"). This course is an introduction to foreign language acquisition and to the theoretical models underlying current methods, approaches and classroom practices. Syllabus and test design and lesson planning are also treated. All participants do two days of observation and two days of supervised teaching in a first-year class.

Graduate students have the opportunity to teach in the beginning and intermediate German language program (<http://german.uchicago.edu/graduate>). They have full responsibility for the courses they teach, including syllabus design, day-to-day instruction, test design, grading and all other record keeping. Input from the graduate students is also critical in the ongoing implementation and revision of the curriculum. Internal grant monies have been made available to support the development of an on-line writing project designed by graduate students, as well as other curricular innovations.

Graduate students also have the opportunity to work as on-site coordinators and/or instructors in study-abroad programs in Vienna and Freiburg (<http://german.uchicago.edu/graduate>). The preparation of students for study-abroad and their reintegration into the curriculum is an ongoing process in which graduate students, in their roles as instructors, are deeply involved.

Each fall there is an orientation for all graduate students who will teach that year. It is held in conjunction with the Center for Teaching and Learning (<http://teaching.uchicago.edu>) and deals with general procedural and pedagogical issues as well as specific course objectives and practices. This inter-departmental cooperation also includes jointly held workshops and seminars on different topics in the field of second language teaching, offered by University of Chicago faculty and experts from other institutions.

GERMANIC STUDIES GRADUATE COURSES

GRMN 33119. Problems in the Study of Gender and Sexuality: On "Women's Writing" 100 Units.

This course interrogates "women's writing" as a historical, theoretical, and literary category. Since the 1970s, feminist scholarship has used the category "women's writing" to recuperate texts by historically marginalized female authors. This practice has led to a reconsideration of the role of gender in literary production, authorship, and canon formation. Focusing on the context of modern Europe, and the genre of narrative prose, this course aims to reevaluate the classification "women's writing." Is "women's writing," to borrow a phrase from Joan Scott, a "useful category of analysis" in the 21st century? Can it help us account for how gendered subjects have been constructed through narrative? To what extent do traditional generic and disciplinary divisions limit our understanding of women's texts? Does the concept "women's writing" allow for intersectional approaches to the study of gender and sexuality? Course readings will include literary texts from the 18th-21st centuries (works by Jane Austen, Annette von Droste-Hülshoff, Elfriede Jelinek, and Marjane Satrapi, among others), as well as theoretical approaches from feminist, queer, and transgender studies.

Instructor(s): Sophie Salvo Terms Offered: Winter

Note(s): Readings and discussions in English. This course counts as a "Problems" course for GNSE majors.

Equivalent Course(s): GNSE 30102, GRMN 23119, GNSE 20102

GRMN 33419. Richard Wagner's Ring of the Nibelung in Performance. 100 Units.

This seminar, open to undergraduates and beginning graduate students, serves as a critical introduction to and intensive exploration of Richard Wagner's 19th century tetralogy. In addition to critical readings (e.g., by Wagner, Adorno, Nietzsche, Badiou, Dahlhaus, et al.) and screenings of a host of productions, we will travel downtown to Lyric Opera to attend performances of the Ring cycle in David Pountney's new production. Our discussions of the Chicago production will be supplemented by conversations with members of the Lyric Opera production team, including Anthony Freud, Lyric Opera's General Director. No previous knowledge is required although a curiosity about opera, German culture, media history, and/or theater & performance studies will be essential.

Instructor(s): David Levin Terms Offered: Spring

Equivalent Course(s): MUSI 24520, FNLD 23419, GRMN 23419, TAPS 26519, MUSI 32520, CMST 32119, CMST 22119, TAPS 36519

GRMN 33819. Narratology of Tears: Goethe, Sterne, and the Sentimental Novel. 100 Units.

This seminar will, with a certain intensity of focus, examine two masterpieces of the "sentimental" mode:

Laurence Sterne's *A Sentimental Journey Through France and Italy* (1768) and Goethe's *Die Leiden des jungen Werther* (1774). Since these novels are both generically self-reflective and, each in its own way, boldly experimental, they are well-suited for an analysis oriented toward the theory of narrative. Comparisons will be drawn to passages in Samuel Richardson's *Clarissa, or, The History of a Young Lady* (1747-8) and Rousseau's *Julie, ou La nouvelle Heloise* (1761). We will also take a forward look at Pierre Choderlos de Laclos' *Liaisons dangereuses* (1782), which may be considered the destruction of the form. In addition to fundamental contributions to narratology, works by Roland Barthes (*Fragments of a Lover's Discourse*), Albrecht Koschorke (*Körperströme und Schriftverkehr. Mediologie des 18. Jahrhunderts*), and James Chandler (*An Archeology of Sympathy. The Sentimental Mode in Literature and Cinema*) will be important points of reference. As always, Schiller's *Über naive und sentimentalische Dichtung* will prove indispensable.

Instructor(s): David Wellbery Terms Offered: Autumn

Equivalent Course(s): CMLT 33819, SCTH 33819

GRMN 34419. What Is Authority. 100 Units.

The aim of the seminar is to clarify the notion of authority in its (historically shifting) relation to neighboring concepts such as power, violence, domination, law, obedience, among others. Readings will be drawn from literature (Shakespeare, Kafka), philosophy (Hegel, Derrida, Agamben), psychoanalytic theory (Freud, Lacan), political and cultural theory (Benjamin, Schmitt, Arendt), anthropology (Geertz), and sociology (Weber, Durkheim).

Instructor(s): Eric Santner Terms Offered: Autumn

Equivalent Course(s): HREL 34419

GRMN 34619. Giorgio Agamben's Homo Sacer Project. 100 Units.

The seminar will attempt to work through the nine (mostly short) volumes that constitute Agamben's effort to articulate a theory of the ways in which human life is "politicized," comes to be inscribed relations of power and authority. Special consideration will be given to Agamben's recourse to literature-above all, to the work of Kafka--in the elaboration of his theory.

Instructor(s): Eric Santner and Ryan Coyne Terms Offered: Spring

Note(s): Undergrads welcome with permission of instructor

Equivalent Course(s): THEO 34619, DVPR 34619

GRMN 38120. Narratology Laboratory: Basic Concepts and Research Potential. 100 Units.

This seminar is an introduction to the formal study of narrative. Its purpose is to provide students with a set of conceptual instruments that will be useful to them in a broad range of research contexts. Narratology, although it originated within in literary studies, is today an indispensable dimension of inquiry in the Human Sciences generally. Topics to be considered include: 1) the structure of the narrative text; 2) the logic of story construction; 3) questions of perspective and voice; 4) character and identification; 5) narrative genres; 6) narrative in non-linguistic media. After a brief consideration of Aristotle's *Poetics*, we will move on to fundamental contributions by (inter alia) Propp, Lévi-Strauss, Barthes, Greimas, Genette, Eco, Lotman, Marin, Ricoeur, finishing with recent work in analytic philosophy and cognitive science. There will be NO papers or examinations. Rather, the course material will be introduced in lectures and subgroups of course participants will carry out circumscribed projects of narratological research.

Instructor(s): David Wellbery Terms Offered: Spring

Prerequisite(s): Undergraduates by consent only.

Equivalent Course(s): CMLT 38120, CMLT 28120, GRMN 28120

GRMN 47219. The Romanticism Laboratory. 100 Units.

This seminar examines German Romanticism with respect to its major expressions: aesthetics and critical theory (esp. Fr. Schlegel, A.W. Schlegel); central concepts (irony, fragment, work, reflection); narrative forms (Kunstmärchen, novella, novel); lyric; drama. We will also briefly consider painting, political and social theory, historiography, and theology. Among the writers to be considered are Tieck, Novalis, Brentano, Günderode, Schlegel, Eichendorff, Hoffmann, and Heine. Developing a synthetic historical-theoretical account of Romanticism involves examination of a broad range of texts, but time limitations require concentration on exemplary cases. Nonetheless, to ensure maximum coverage, students will be expected to conduct independent research and to present their findings to the group. In order for these findings to fit together in a large picture, it will be necessary to develop a shared set of analytic concepts. In short, the seminar is conceived as a "research laboratory" in which individual contributions are brought together to produce an encompassing research report. Major contributions to the scholarship (e.g., Benjamin, Behler, Henrich, Menninghaus, Frank, Beiser) will be constant points of reference. Thus, the seminar will provide all participants with rich source material for future teaching and writing. (Good reading knowledge of German required.)

Instructor(s): David Wellbery Terms Offered: Spring

Prerequisite(s): Good reading knowledge of German required.

Equivalent Course(s): SETH 47219



DEPARTMENT OF LINGUISTICS

Chair

- Lenore Grenoble

Professors

- Diane Brentari
- Susan Gal, Anthropology
- Anastasia Giannakidou
- John Goldsmith
- Lenore Grenoble
- Chris Kennedy
- Jason Merchant
- Salikoko Mufwene
- Michael Silverstein, Anthropology
- Alan Yu

Associate Professors

- Karlos Arregi - Director of Graduate Studies
- Amy Dahlstrom
- Jason Riggle
- Ming Xiang

Assistant Professors

- Itamar Francez
- Yaroslav Gorbachov

Postdoctoral Scholars

- Natalia Bermudez
- Sharese King
- Erik Zyman

Emeritus Faculty

- Howard I. Aronson, Slavic Languages & Literatures
- Bill Darden, Slavic Languages & Literatures
- Gene B. Cragg, Oriental Institute
- Paul Friedrich, Anthropology
- Victor Friedman
- Eric P. Hamp, Linguistics
- Carolyn G. Killean, Near Eastern Languages & Civilizations
- Colin P. Masica, South Asian Languages & Civilizations
- G. David McNeill, Psychology
- Jerrold Sadock, Linguistics

Since 1926, the Department of Linguistics at the University of Chicago has been at the center of the development of the field, counting among its faculty linguists of the first rank such as Sapir and Bloomfield. It is theory-oriented with a deep empirical interest in languages. One of its outstanding characteristics is its commitment to a wide range of approaches to the study of language. Interdisciplinary, interdepartmental study is encouraged, and students regularly work with faculty in several other departments. Students are expected to become active researchers as soon as possible after their arrival here. Many students come with strong undergraduate training in linguistics, or with a Master's degree; others come with strong training in fields such as philosophy, mathematics, or a particular language or language group. The faculty are involved in synchronic and diachronic research on languages from around the world. These varied interests are reflected in the topics of the dissertations that have been written in the Department.

PROGRAM

The graduate program in linguistics leading to the PhD degree is intended to be completed in five years. The University of Chicago operates on the quarter system. Graduate students normally register for three courses per quarter, three quarters per year. They generally take three to four years of coursework.

In the first two years, students take eight foundational **courses** chosen from a selection of thirteen available options. Six of these eight classes must be completed during the student's first year in the program.

In addition to these foundational courses, students must also take a methods course and three additional graduate-level courses in linguistics.

In years two and three, when students are writing qualifying papers, they must also take the Research Seminar.

A large proportion of courses offered in the Linguistics Department are advanced courses that are open to all students. The topics of these courses change from year to year, in reflection of the ongoing research interests of both faculty and graduate students, and cover areas of current interest in the field at large. Students are also free to take courses related to their research interests that are offered by other departments in the University.

In the second and third years, students continue taking courses and write two **qualifying papers** (<http://linguistics.uchicago.edu/graduate-program/assessments>) under **faculty supervision** (<http://linguistics.uchicago.edu/graduate-program/advising>). In addition to these major landmarks, students are required to satisfy a non-Indo European **language requirement** (<http://linguistics.uchicago.edu/graduate-program/language-requirements>) and to pass a reading examination in an additional language other than English. Upon completion of the qualifying papers and course and language requirements and defense of a dissertation proposal by the end of the fourth year students are admitted to candidacy for the PhD; the only remaining requirement is the **dissertation**.

APPLICATION AND ADMISSION

Completed applications for admission and aid, along with all supporting materials, are due in mid-December for the academic year that starts in the following Autumn.

Four parts of the application are critically important and should accompany the application: the student's academic record, letters of recommendation submitted by persons able to describe the student's achievements and promise, the student's statement of purpose, which describes the intellectual issues and subjects which they hope to explore at Chicago, and a sample of pertinent written work that demonstrates the applicant's research interests or capabilities. The sample may consist of published essays, class term papers, or a B.A. or M.A. thesis, or some combination of all of these. The student's academic record is documented through official transcripts, but applicants are also encouraged to submit as supplemental material an 'annotated transcript': a file they create that lists all the courses they have taken which are relevant to graduate study in linguistics, with the grade received, the full name of the instructor, major texts used or studied, and a brief (no more than five sentences) description of the material covered in the course. Such a supplemental file is more informative for judging the preparation of an applicant than is the official transcript.

When completing the application form, it is of benefit to the applicant to be as specific as possible in describing his or her research interests. General comments are of relatively little use; applicants are encouraged to discuss specific linguistic subject matters that they are interested in or have worked on.

If an applicant knows faculty members with whom he or she might work, the latter's names should be given as well. The faculty of the Linguistics Department would be happy to answer any questions that prospective students may have. Please contact them individually regarding their research or classes, or contact the Director of Graduate Studies for more general or administrative questions. Contact information is available at the Linguistics Department website (<http://linguistics.uchicago.edu>).

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions>

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu>, or call them at (773) 702-7752.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

LINGUISTICS COURSES

LING 23200. Topics in Semantics and Pragmatics. 100 Units.

This focus of this course is conversational implicature. We will take the classic characterization of implicature in Grice as our starting point, and spend the rest of the quarter working through subsequent proposals that refine, rethink and/or reject it, and the empirical and theoretical concerns that motivate them. Topics to be discussed include: the relation between implicature and semantic composition; the nature and calculation of alternatives to what is said; game theoretic approaches to implicature and their relatives; Bayesian pragmatics; free choice inferences; manner implicature; pragmatic weakening vs. pragmatic strengthening.
Equivalent Course(s): LING 42010

LING 30150. Language and Communication. 100 Units.

This course can also be taken by students who are not majoring in Linguistics but are interested in learning something about the uniqueness of human language, spoken or signed. It covers a selection from the following topics: What is the position of spoken language in the usually multimodal forms of communication among humans? In what ways does spoken language differ from signed language? What features make spoken and signed language linguistic? What features distinguish linguistic means of communication from animal communication? How do humans communicate with animals? From an evolutionary point of view, how can we account for the fact that spoken language is the dominant mode of communication in all human communities around the world? Why cannot animals really communicate linguistically? What do the terms language "acquisition" and "transmission" really mean? What factors account for differences between "language acquisition" by children and by adults? Are children really perfect language learners? What factors bring about language evolution, including language speciation and the emergence of new language varieties? How did language evolve in mankind? This is a general education course without any prerequisites. It provides a necessary foundation to those working on language at the graduate and undergraduate levels.

Instructor(s): Salikoko Mufwene Terms Offered: Autumn

Equivalent Course(s): CHDV 30150, CHDV 20150, LING 20150

LING 30201. Syntax I. 100 Units.

Graduate student standing. Undergraduates with a grade of A or A- in Intro to Syntax may petition the instructor for admission. This course is an advanced survey of topics in graduate syntax examining current syntactic theory through detailed analysis of a range of phenomena and readings from the primary research literature.

Instructor(s): Jason Merchant Terms Offered: Autumn

Prerequisite(s): Graduate student standing

LING 30202. Syntactic Analysis - II. 100 Units.

This course is a continuation of Syntax I. The emphasis will be on A'-movement and ellipsis operations within the framework of Principles and Parameters and the Minimalist Program. Although we will examine different types of movement and ellipsis constructions, as well as their interactions, the objective will be to understand to what extent we can develop a general theory of syntax. The course will have a strong cross-linguistic aspect to it, examining data from Irish, Austronesian languages, Mayan languages, Wolof, Russian, Romance, Germanic, and others. The topics will include wh-movement in questions, relative clauses, and other constructions, islands and other constraints on movement, sentence fragments (sluicing, split questions), VP-ellipsis, and gapping.

Instructor(s): Jason Merchant Terms Offered: Winter

Prerequisite(s): LING 30201

LING 30301. Semantics and Pragmatics I. 100 Units.

This is the first in a two-course sequence designed to provide a foundation in the scientific study of all aspects of linguistic meaning. The first quarter focuses primarily on pragmatics: those aspects of meaning that arise from the way that speakers put language to use, rather than through the formal properties of the linguistic system itself, which is the domain of semantics. However, a central goal of the course will be to begin to develop an understanding of the relation between pragmatics and semantics, by exploring empirical phenomena in which contextual and conventional aspects of meaning interact in complex but regular and well-defined ways, and by learning analytical techniques that allow us to tease these two aspects of linguistics meaning apart.

Instructor(s): Itamar Francez Terms Offered: Autumn

LING 30302. Semantics and Pragmatics II. 100 Units.

This is the second in a two-course sequence designed to provide a foundation in the scientific study of all aspects of linguistic meaning. The second quarter focuses on the syntax-semantics interface and cross-linguistic semantics. The class will introduce in detail a theory of the way in which the meaning of complex linguistic expressions is formed compositionally from the meaning of constituent parts, and the interaction of semantic and syntactic composition. This theory will form the basis for exploring some empirical questions about the systematicity of cross-linguistic variation in the encoding of meaning.

Instructor(s): Chris Kennedy Terms Offered: Spring

Prerequisite(s): LING 30301

LING 30800. Phonology-1. 100 Units.

Equivalent Course(s): ANTH 37301, LING 20800

LING 3090. Phonology-2. 100 Units.

Equivalent Course(s): LING 20900, ANTH 37302

LING 31000. Morphology. 100 Units.

Looking at data from a wide range of languages, we will study the structure of words. We will consider the nature of the elements out of which words are built and the principles that govern their combination. The effects of word structure on syntax, semantics, and phonology will be examined. We will think critically about the concepts of morpheme, inflection, derivation, and indeed, the concept of word itself.

Instructor(s): Staff Terms Offered: Spring

Equivalent Course(s): ANTH 37500

LING 35100. Old Church Slavonic. 100 Units.

This course is an introduction to the language of the oldest Slavic texts. It begins with a brief historical overview of the relationship of Old Church Slavonic to Common Slavic and the other Slavic languages. This is followed by a short outline of Old Church Slavonic inflectional morphology. The remainder of the course is spent in the reading and grammatical analysis of original texts in Cyrillic or Cyrillic transcription of the original Glagolitic. Equivalent Course(s): REES 33115, LING 23115, REES 23115, MDVU 25100

LING 38355. A Linguistic Introduction to Swahili I. 100 Units.

Spoken in ten countries of Eastern and Central Africa, Swahili has more speakers than any other language in the Bantu family, a group of more than 400 languages most prevalent in sub-equatorial Africa. Based on Swahili Grammar and Workbook, this course helps the students master key areas of the Swahili language in a fast yet enjoyable pace. Topics include sound and intonation patterns, noun class agreements, verb moods, and sentence structures. Additionally, this course provides important listening and expressive reading skills. For advanced students, historical interpretations are offered for exceptional patterns observed in Swahili, in relation with other Bantu languages. This is a general introduction course with no specific prerequisites.

Instructor(s): Fidèle Mpiranya Terms Offered: Autumn

Equivalent Course(s): LING 28355

LING 38356. Linguistic Introduction to Swahili II. 100 Units.

Based on Swahili Grammar and Workbook, this course is a continuation of Linguistic Introduction to Swahili I. It addresses complex issues related to grammatical agreement, verb moods, noun and verb derivation, non-typical adjectives and adverbs, double object constructions, subordinate / coordinated clause constructions, and dialectal variation. Additionally, this course provides important listening and expressive reading skills. For advanced students, historical interpretations are offered for exceptional patterns observed in Swahili, in relation with other Bantu languages. This course allows fulfilling the non-Indo-European language requirement.

Instructor(s): Fidele Mpiranya Terms Offered: Spring

Equivalent Course(s): LING 28356

LING 38600. Computational Linguistics. 100 Units.

This course introduces the problems of computational linguistics and the techniques used to deal with them, focusing primarily on probabilistic models and techniques. Topics are drawn primarily from phonology, morphology, and syntax. Special topics include automatic learning of grammatical structure and the treatment of languages other than English.

Instructor(s): J. Goldsmith Terms Offered: Spring

Prerequisite(s): CMSC 12200, 15200 or 16200, or by consent

Equivalent Course(s): CMSC 35050, DIGS 30013

LING 38610. Computational Linguistics I. 100 Units.

This course is an introduction to topics at the intersection of computation and language, oriented toward linguists and cognitive scientists. We will study computational linguistics from both scientific and engineering angles -- the use of computational modeling to address scientific questions in linguistics and cognitive science, as well as the design of computational systems to solve engineering problems in natural language processing (NLP). The course will combine analysis and discussion of these approaches with training in the programming and mathematical foundations necessary to put these methods into practice. Our goal in this quarter is for students to leave the course able to engage with and evaluate research in cognitive/linguistic modeling and NLP, and to be able to implement intermediate-level computational models.

Instructor(s): Allyson Ettinger Terms Offered: Autumn

Prerequisite(s): At least two courses in linguistics or other cognitive science field (or permission of instructor)

Equivalent Course(s): CMSC 35610, CMSC 25610, LING 28610

LING 38620. Computational Linguistics II. 100 Units.

This is the second in a two-course sequence providing an introduction to topics at the intersection of computation and language, oriented toward linguists and cognitive scientists. In this quarter we will cover more advanced topics in cognitive/linguistic modeling and natural language processing (NLP), applying more complex programming and mathematical foundations. Our goal in this quarter is for students to leave the course able to implement advanced models and conduct novel research in cognitive/linguistic modeling and NLP.

Instructor(s): Allyson Ettinger Terms Offered: Spring

Prerequisite(s): Computational Linguistics I or permission of instructor

Equivalent Course(s): LING 28620, CMSC 25620, CMSC 35620

LING 40301. Field Methods I. 100 Units.

The field methods course is a two-quarter course, taken by graduate students and advanced undergraduates. (Students may elect to take the course more than once.) This course is devoted to the elicitation, transcription, organization, and analysis of linguistic data from a native speaker of a language not commonly studied. Students will also gain practical experience in the use of fieldwork equipment. Language chosen may vary from year to year.

Instructor(s): Amy Dahlstrom Lenore Grenoble Terms Offered: Autumn

LING 40302. Field Methods II. 100 Units.

The field methods course is a two-quarter course, taken by graduate students and advanced undergraduates. (Students may elect to take the course more than once.) This course is devoted to the elicitation, transcription, organization, and analysis of linguistic data from a native speaker of a language not commonly studied. Students will also gain practical experience in the use of fieldwork equipment. Language chosen may vary from year to year.

Instructor(s): Amy Dahlstrom Terms Offered: Winter

LING 40310. Experimental Methods. 100 Units.

This course will cover the basic methods for experimental studies, including experimental design, data collection and statistical analysis. To demonstrate different design and analysis tools, we will look at data set from different types of studies, including self-paced reading, acceptability judgment, eye tracking, ERP, etc. Students will also gain hands-on experience on different paradigms.

Instructor(s): Laura Cassanto Terms Offered: Winter

LING 40311. Experimental Methods 2. 100 Units.

This course will cover the basic methods for experimental studies, including experimental design, data collection and statistical analysis. To demonstrate different design and analysis tools, we will look at data set from different types of studies, including self-paced reading, acceptability judgment, eye tracking, ERP, etc. Students will also gain hands-on experience on different paradigms.

LING 41920. The Evolution of Language. 100 Units.

How did language emerge in the phylogeny of mankind? Was its evolution saltatory or gradual? Did it start late or early and then proceed in a protracted way? Was the emergence monogenetic or polygenetic? What were the ecological prerequisites for the evolution, with the direct ecology situated in the hominine species itself, and when did the prerequisites obtain? Did there ever emerge a language organ or is this a post-facto construct that can be interpreted as a consequence of the emergence of language itself? What function did language evolve to serve, to enhance thought processes or to facilitate rich communication? Are there modern "fossils" in the animal kingdom that can inform our scholarship on the subject matter? What does paleontology suggest? We will review some of the recent and older literature on these questions and more.

Instructor(s): Salikoko Mufwene Terms Offered: Winter

Equivalent Course(s): ANTH 47305, CHDV 41920, CHSS 41920, PSYC 41920, EVOL 41920, CHDV 21920, LING 21920

LING 57727. LingAnthSem: Voiced Revelations on "Fieldwork" on Languages and Cultures. 100 Units.

The recent publication (2019) and prominent popular reviews of Don Kulick's *A Death in the Rainforest* is at the leading edge of a long and distinguished line of publishing "the straight dope" on what it is like to engage in systematic empirical study of languages, particularly as denotational structures, and of cultures, particularly as the frameworks of value for the experiences in the field that envelop "natives" and the researcher. We take up the problem of how - and for whom - to 'voice' a kind of informal and revelatory retrospection of the fieldwork experience, using as examples writings by Bronislaw Malinowski, Hortense Powdermaker, Claude Lévi-Strauss, Margaret Mead, Robert M. W. Dixon, Don Kulick, and others - especially those suggested by members of the seminar.

Instructor(s): Michael Silverstein Terms Offered: Autumn. Autumn 2019

Equivalent Course(s): ANTH 57727



DEPARTMENT OF MUSIC

Chair

- Berthold Hoeckner

Professors

- Philip V. Bohlman
- Thomas Christensen
- Martha Feldman
- Robert L. Kendrick
- Anne Walters Robertson
- Augusta Read Thomas
- Lawrence Zbikowski
- Berthold Hoeckner

Associate Professors

- Travis A. Jackson
- Steven Rings
- Seth Brodsky

Assistant Professors

- Jessica Baker
- Anthony Cheung
- Jennifer Iverson
- Sam Pluta

Senior Lecturers

- James Kallembach
- Barbara Schubert

Lecturers

- Olga Sanchez-Kisielewska
- Daniel Pesca

Emeritus Faculty

- Easley R. Blackwood
- Philip Gossett
- Shulamit Ran
- Don Randel
- Marta Ptaszynska

PROGRAMS OF STUDY

The Department of Music at the University of Chicago offers the degree of Doctor of Philosophy in three areas: composition, ethnomusicology and the history and theory of music.

The program in composition is designed to develop students' creative and technical abilities at writing new music. Students take individual composition lessons with faculty members, often studying with more than one faculty member in the course of their residence. Students also receive training in a wide variety of related areas and skills, including score reading and conducting, orchestration, musical analysis, twentieth century styles, historical periods and (optionally) computer generated sound synthesis. A portion of this training will lead to the development of a minor field in ethnomusicology, musicology, theory and analysis or research in computer music. There is a weekly seminar for all of the students in the composition program, designed to broaden the perspectives and address the problems of aspiring composers.

The program in ethnomusicology prepares students to carry out scholarship and writing about the place of music in various cultures. Students receive grounding in cultural theory, anthropology, ethnographic methods, problems in cross-cultural musical analysis, and a variety of world and popular musics. They also conduct fieldwork on some of these musics. The program is interdisciplinary, drawing upon course offerings in music, anthropology and a variety of area studies.

The program in music history and theory prepares students to carry out various kinds of scholarship and writing about music, especially (but not solely) in traditions of European and American repertoires. Students may emphasize either the historical or theoretical side of scholarship, according to their interests, and may also choose to pursue a minor field in composition. Students emphasizing music history typically concentrate on varieties of musicology that include cultural history, textual criticism, stylistic studies, institutional history, hermeneutics and critical theory. Students emphasizing music theory typically concentrate on detailed analysis of individual works, clusters of works (by genre or composer, for example), theoretical systems and the history of theory. Most students who complete the Ph.D. in music history and theory seek academic employment, but others have gone on to work in fields such as publishing, operatic production, and commercial editing.

The Degree of Master of Arts

Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study. MAPH students often take classes with students in the Ph.D. programs. Further details about the MAPH program are available at <http://maph.uchicago.edu/>

FELLOWSHIPS

Students admitted to doctoral study are typically awarded a six-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

COURSES

The following provides a general outline of educational opportunities and degree requirements in the programs, but in no way replaces the detailed information given to all prospective students and enrolled students in the department. Up to date information about academic programs and courses is available on the website of the Music Department at <http://music.uchicago.edu>.

During the first two years of study students take a number of required offerings (numbered between 30000 and 39900) including analysis courses, proseminars in historical periods and in ethnomusicology, courses on particular skills and individual composition lessons, depending on their programs of study. At the same time they take seminars (numbered above 41000), which tend to be more specialized and more advanced. About half of a student's schedule consists of electives, which may include non-required courses in the department, courses given outside the department and reading courses (i.e. independent studies).

Students entering the program without a master's degree in music from another institution take fifteen courses during the first two years of registration (before taking comprehensive exams). Those entering with a master's degree from another institution normally take nine courses in the first year of registration (before taking comprehensive exams).

In addition to courses and other requirements (listed below), students who wish to obtain an M.A. must submit two seminar papers, or a composition of at least eight minutes, for approval by the faculty.

During the second two years of study, students in the scholarly programs are required to take three seminars, and students in composition are expected to develop a minor field of four courses. Standard minors for composition students include ethnomusicology, musicology, theory and analysis, or computer music research. After the comprehensive exams, students fulfill remaining requirements and begin work on the dissertation (see below).

Students entering their program of study without a master's degree in music can expect to complete their course work in three or four years. Those entering with a master's can expect to complete their course work in two or three years.

COMPREHENSIVE EXAMINATIONS

Students ordinarily take comprehensive exams (https://lucian.uchicago.edu/blogs/musiccurriculum/#Overview_Exams_Comprehensive_Examinations) just prior to the beginning of the third year in the program. Students entering with a master's degree in music from another institution have the option of taking their exams at the beginning of their second year.

Students in composition take three comprehensive examinations:

- The composition of a work based on a set of given guidelines
- An oral examination on ten compositions from the repertoire
- A close analysis of a single work or movement

Students in ethnomusicology take four comprehensive exams:

- Conceptual Foundations: essays covering broad issues of theoretical importance to ethnomusicology and musicology.

- Cultural Areas: essays demonstrating knowledge of two world musical cultural areas. There will be three essay questions of equal length. Two questions will be based on a primary cultural area. One question will be based on a secondary cultural area; the secondary area may be a historical era.
- Twelve Single Sheets: These will normally include six aural and six written examples drawn from Cultural Areas relevant to the student's research and broader ethnomusicological work. Examples will be drawn from a list of works provided in the first year.
- A close analysis of a musical work, selected by faculty prior to administration of the examination from three options:
 - a. An ethnomusicological example (which may involve transcription from a recording, analysis of a previous transcription, or some combination of these)
 - b. A tonal Western example
 - c. An atonal Western example

Students in history and theory take four of the following eight examinations (within some distribution guidelines):

- The identification of musical scores or excerpts drawn from European traditions of the 9th to the 20th centuries. Students pursuing a minor field in composition may substitute a two-hour oral examination on musical repertory.
- History concentrators will take four sets of essays on the history of European traditions, corresponding to the four proseminars in music history (Music 32500, 32600, 32700, and 32800). Theory concentrators will take two such sets of historical essays—one on music before 1800, one on music after 1800—and two sets of essays in the history of music theory.
- A close analysis of a single work or movement, to be selected from tonal analysis or atonal analysis.
- One further set of essays, to be drawn from the following:
 - a set of essays in Conceptual Foundations of Musical Scholarship (https://lucian.uchicago.edu/blogs/musiccurriculum/#Ethno_conceptual_foundations)
 - a set of essays in the History of Music Theory
 - a further analysis exam (tonal or atonal)
 - an ethnomusicological cultural area (https://lucian.uchicago.edu/blogs/musiccurriculum/#Ethno_cultural_areas)

While course work helps prepare students for comprehensive exams, students are expected to be enterprising in their efforts to determine both areas of weakness that they need to work on, and ways to synthesize and interrelate knowledge about history, repertory, theory, and so forth. Students should expect to spend an extended period of time engaged in intensive individual study in preparation for comprehensive exams, particularly during the summer before taking them.

SPECIAL FIELD EXAMINATION/DISSERTATION PROPOSAL

After having passed the comprehensive exams, students in music history and theory and in ethnomusicology also take a two-part oral exam at some time during the third or fourth year. For students in ethnomusicology, the first part of the oral tests the student's knowledge of, and ability for, synthetic thought within a selected area of world music. For all students, the exam is a defense of the dissertation prospectus, demonstrating the propriety and feasibility of the topic and the student's knowledge of the existing literature about it. Normally students take this exam in the third or fourth year. The exam is administered by the student's dissertation committee (often including a person from outside the department), with additional faculty members sometimes attending as well.

DISSERTATION

For students in music history and theory and in ethnomusicology the dissertation for the Ph.D. consists of a book length study that makes an original contribution to research and thought. Students in composition must complete a large scale composition that shows professional competence, as well as a paper demonstrating ability to do advanced work in an area of musical scholarship (ordinarily the student's minor field), normally 30–50 pages in length. All students are required to defend the dissertation before receiving the degree.

LANGUAGE EXAMINATIONS

Language Examinations (https://lucian.uchicago.edu/blogs/musiccurriculum/#Overview_Exams_Language_Examinations) are administered by the University. Specific details about language requirements are listed in the curriculum for each area of study.

MUSICIANSHIP EXAMINATIONS

Examinations in practical musicianship skills (https://lucian.uchicago.edu/blogs/musiccurriculum/#Overview_Exams_Musicianship_Examinations) are administered by the Department of Music. These include examinations in basic musicianship skills and advanced musicianship skills. Examinations in basic musicianship include musical dictation, sight singing, and sight reading at the piano or another instrument in the Western

musical tradition. Advanced musicianship skills include three skills to be realized at the piano (for students with advanced keyboard skills) or realized in written form (for students with no advanced keyboard skills): figured bass, reading of open vocal scores in old clefs and orchestral score reading (with a 24-hour preparation period). Other advanced musicianship skills are atonal dictation, transcription of music from oral or improvisatory traditions, improvisation in an improvisatory tradition, and playing in a University ensemble for at least one year concluding with a public concert. Students may petition to play in a recognized performing group other than official University ensembles. Students may also petition to fulfill the ensemble requirement through a solo performance in a university concert.

The number and kind of musicianship examinations for composition, ethnomusicology, history, and theory vary according to the respective programs as specified in the department's Graduate Curriculum (https://lucian.uchicago.edu/blogs/musiccurriculum/#Overview_Exams_Musicianship_Examinations). Musicianship examinations are given during each of the three quarters. There is no limit to the number of examinations a student may take at a single sitting, and no limit to the number of times that a student may retake a musicianship examination. The Department offers free, informal, non-credit instruction in these skills. Instruction will be offered on an individual basis. The Department is not obligated to offer instruction in the area chosen by the student.

All departmental master's degrees require successful completion of two musicianship examinations, except composition, which requires successful completion of three.

COLLOQUIUM

The Colloquium is a series of lectures followed by discussion and normally given by speakers from other institutions who are specially invited by the Music Department to share their recent research or compositions with students and faculty. Attendance at a total of six quarters of colloquium is required, and students may register for colloquium in any quarter. Students must attend at least half of the lectures in a given term to fulfill the colloquium requirement for that term.

GRADUATE TEACHING

There exist a number of opportunities for teaching during students' graduate careers. The various teaching opportunities range from assistantships to individual course assignments for which students have virtually full responsibility. The kinds of courses taught or assisted by graduate students include those in history, appreciation, theory, ear training, and world music. In addition to these assignments, students may be nominated for Stuart Tave Teaching Fellowships in the Humanities Collegiate Division, which allow advanced graduate students in the humanities to teach upper level undergraduate courses in their own areas of research.

PERFORMING ACTIVITIES

Students are expected to be able to perform creditably on some instrument or to sing, and candidates for the degree are encouraged to participate in one or more of the performance organizations on campus supported by the Department of Music. These include the University Symphony Orchestra, University Chamber Orchestra, University Wind Ensemble, University Chorus, Women's Ensemble, Motet Choir, Rockefeller Chapel Choir, Percussion Ensemble, Chamber Music, Early Music Ensemble, Jazz Ensemble, Middle Eastern Music Ensemble, and South Asian Music Ensemble. The Piano Program and the Vocal Studies Program offer intensive study in those areas with private instruction, master classes and quarterly performance opportunities.

APPLICATION

Applicants to the programs in music history and theory and in ethnomusicology will be asked to submit two papers as samples of their previous works in addition to the usual application forms, transcripts, letters of recommendation, and GRE scores. Applicants in composition will be asked to submit scores, preferably three, and recordings if available, digitally or in hard copy.

In addition to their scholastic skills, students need at least a modicum of proficiency in fundamental musical skills in order to succeed in the program. It is expected that entering students have competence in playing a musical instrument or singing, as well as possess basic skills in ear training and music theory.

Prospective applicants seeking more detailed information about the course requirements, exams, etc. than is given here should refer to the Graduate Curriculum.

Further information about the various aspects of the graduate program, such as course descriptions and the Graduate Curriculum (<https://lucian.uchicago.edu/blogs/musiccurriculum/#Overview>), can also be obtained from the Department of Music's home page on the World Wide Web, <http://music.uchicago.edu>. Students interested in the program can apply online.

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at <http://humanities.uchicago.edu/students/admissions>.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

MUSIC COURSES

MUSI 30000. Reading Course: Music. 100 Units.

Independent reading

Instructor(s): Anna Schultz Terms Offered: Winter. Winter 2019 section 21

MUSI 30716. Opera as Idea and Performance. 100 Units.

Is opera an archaic and exotic pageant for fanciers of overweight canaries, or a relevant art form of great subtlety and complexity that has the power to be revelatory? In this course of eight sessions, jointly taught by Professor Martha Nussbaum and Anthony Freud, General Director of Lyric Opera of Chicago, we explore the multi-disciplinary nature of this elusive and much-maligned art form, with its four hundred-year-old European roots, discussing both historic and philosophical contexts and the practicalities of interpretation and production in a very un-European, twenty-first century city. Anchoring each session around a different opera, we will be joined by a variety of guest experts, including a director, conductor, designer and singer, to enable us to explore different perspectives. The tentative list of operas to be discussed include Monteverdi's *The Coronation of Poppea*, Mozart's *Don Giovanni*, Rossini's *La Cenerentola*, Verdi's *Don Carlos*, Puccini's *Madama Butterfly*, Wagner's *Ring*, Strauss's *Elektra*, and Britten's *Billy Budd*. Remark: students do not need to be able to read music, but some antecedent familiarity with opera would be extremely helpful. CD's and DVD's of the operas will be placed on reserve. Law Students and Ph.D. students in Philosophy and Music may register without permission. All others need to apply for permission, and will be part of a lottery.

Instructor(s): M. Nussbaum Terms Offered: Spring

Note(s): Remark: students do not need to be able to read music, but antecedent familiarity with opera would be extremely helpful.

Equivalent Course(s): MUSI 24416, PHIL 21102, PHIL 31102

MUSI 30901. Issues in Film Music. 100 Units.

This course explores the role of film music in the history of cinema. What role does music play as part of the narrative (source music) and as nondiegetic music (underscoring)? How does music of different styles and provenance contribute to the semiotic universe of film? And how did film music assume a central voice in twentieth-century culture? We study music composed for films (original scores) as well as pre-existent music (e.g., popular and classical music). The twenty films covered in the course may include classical Hollywood cinema, documentaries, foreign (e.g., non-Western) films, experimental films, musicals, and cartoons.

Instructor(s): B. Hoeckner

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): MUSI 22901, CMST 28100, CMST 38100

MUSI 30913. Analysis of Music in the Classical Period, 1775-1825. 100 Units.

This course focuses on the analysis of music by composers associated with the Viennese classical period, including Haydn, Mozart, and Beethoven. Topics include classical phrase structure, standard tonal forms such as sonata-allegro, and basic chromatic harmony. Participants present model compositions and write analytical papers.

Instructor(s): S. Rings Terms Offered: Winter 2015

Prerequisite(s): Music 15300 or equivalent

Equivalent Course(s): MUSI 25113

MUSI 31100. Tonal Analysis I. 100 Units.

This course introduces fundamental tools of tonal analysis, applied to music of the eighteenth and nineteenth centuries, accomplished through a focus on Heinrich Schenker's influential theory of linear analysis. A portion of the course will be given over to exploring the historical and cultural context of Schenker's theory, its critical reception, and the ways it has been applied. This will be complemented by an introduction to Schenkerian techniques and the analytical resources they offer. Note: Music 31100 is conceived as a preparation and foundation for Music 31200, which will build directly upon the analytic models and repertoire introduced in Music 31100.

Instructor(s): Lawrence Zbikowski Terms Offered: Winter

MUSI 31200. Tonal Analysis II. 100 Units.

This course is a continuation of Music 31100, a study of advanced techniques in tonal analysis. Much of our work will center on Schenkerian theory, but we will also place Schenkerian approaches in dialogue with other methods, including recent approaches to Formenlebre, schema theory, and neo-Riemannian theory. We will be interested in exploring the intersections (and frictions) between these diverse analytical methods, seeking at once to develop analytical fluency in each of them and to heighten our sensitivity to the methodological issues involved in a pluralist approach to tonal analysis.

Instructor(s): Thomas Christensen Terms Offered: Spring

MUSI 31300. Analysis of 20th-Century Music. 100 Units.

This course introduces theoretical and analytical approaches to twentieth-century music. The core of the course involves learning a new theoretical apparatus--often called "set theory"--and exploring how best to apply that apparatus analytically to pieces by composers such as Schoenberg, Bartok, and Stravinsky. We also explore the relevance of the theoretical models to music outside of the high-modernist canon, including some jazz. The course provides an opportunity to confront some foundational questions regarding what it means to "theorize about music."

Instructor(s): Steven Rings Terms Offered: Spring 2015

MUSI 31400. Proseminar in Music Analysis. 100 Units.

This proseminar provides both an active, hands-on workshop in musical analysis as well as an opportunity reflect on the nature of academic musical analysis and its place in the disciplinary landscape of 2017. Readings drawn from the current theoretical literature will introduce students to a range of analytical methods, most of which fall outside the purview of the "canonical" graduate music analysis classes in the music curriculum (i.e., Music 31100-31300). In our weekly analytical work we will seek a balance between comparative breadth--drawing on multiple analytical methods--and mastery of specific analytical techniques. Our aim will be to embrace plural methodologies while at the same time honing our critical and evaluative capacities; indeed, we will be especially interested in exploring the status of analytical validity and "criteria of correctness" (Dunsby) in a pluralistic methodological field. Another central theme will be the "multimedia" of academic music analysis: the interaction of sound, text, image, and performance in the effective communication of analytical insight. Repertoires addressed will include early music, non-Western repertoires (centering especially on the recent work of Tenzer, Roeder, et al), and popular music, in addition to more familiar common-practice fare. Coursework will involve weekly analytical assignments, presentations, and a final paper.

MUSI 31500. Ethnomusicology Analysis. 100 Units.

TBD

MUSI 31516. Ethnomusicology Analysis. 100 Units.

In this proseminar in analysis we examine the concepts and structures of mode that stretch from South Asia across the Middle East to the Mediterranean. We concentrate our comparative study on Arabic maqām, Turkish makam, Persian radif, North Indian/Hindustani rāga, and South Indian/Karnatak rāgam. Historically, processes and patterns of exchange between classical, popular, and folk musics in these regions have shaped repertoires, ideas of melody and form, vocal practice and instrumental accompaniment, improvisation and composition, bearing witness to similarities and cross-influences, no less than to distinctive local and regional music cultures. To know and understand the music cultures of the Middle East and South Asia, as well as Muslim regions of Central and East Asia, it is indispensable also to understand the practices of improvisation and composition we analyze in this proseminar.

Instructor(s): Bertie Kibreah Terms Offered: Autumn

MUSI 31801. The Analysis of Song. 100 Units.

This course focuses on the art song of the nineteenth century, with special attention to the relationship between tonal structure and song text. Both individual songs and song cycles are considered, with the main emphasis on works by Schubert, Schumann, and Brahms. Student projects include comparative analyses of settings of the same text by different composers, analyses of a song and its later arrangement as an instrumental work, or the analysis and performance of a song.

Instructor(s): L. Zbikowski Terms Offered: Autumn

Prerequisite(s): MUSI 15300 or equivalent

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): MUSI 25801

MUSI 32200. Proseminar: History and Notation of Polyphonic Music. 100 Units.

Course description unavailable.

Terms Offered: Spring

MUSI 32318. Music and Disability Studies. 100 Units.

This course studies the ways that attitudes toward disability are constructed within a cultural sphere. From the perspective of disability studies, bodies and minds have many kinds of differences, but what is considered "disability" is determined by culture, not given by nature. Music, as well as film, literature, visual art, theatre, and so on, participate in the complex process of constructing and modulating attitudes toward disability. In this course, we will examine the interaction of disability and music in several ways: composers and performers whose creative production is shaped by bodily difference and disability; opera and film characters who embody and stage disability for our consumption; and more abstractly, music whose formal, sonic unfolding seems to engage issues of disability, even in purely instrumental art-pour-l'art works. We will read from the disability studies literature that critiques and theorizes disability themes in literature, film, and visual art, as well as musicology, music theory, and ethnomusicology literature that shows how disability themes are crucial in music. In this interdisciplinary class, students will gain a much more intimate understanding of the ways that attitudes toward abilities and bodies are constructed in art works, as well as be able to think, analyze, critique, write, and create with this understanding in mind. It is not necessary to read music notation for this course.

Instructor(s): Jennifer Iverson Terms Offered: Spring, TBD

Equivalent Course(s): MUSI 22318, TAPS 32318, TAPS 22318

MUSI 32400. Pro-Seminar In Mus:1450-1600. 100 Units.

This course examines issues and contexts for European music in the period, concentrating on cultural meaning, transmission, improvisation, and sources. Students will do work with digital editions of Renaissance music, interactions between Europe and the Americas, and problems of gender and music.

Instructor(s): Robert Kendrick Terms Offered: Winter 2015

MUSI 32517. History and Notation of Monophonic and Polyphonic Music to c. 1520. 100 Units.

History and Notation of Monophonic and Polyphonic Music to c. 1520. This proseminar deals with issues of transmission, compositional history, context and function of music, c.750-c.1520. There will be weekly readings on important problems, listening, and notation assignments. The course requires two papers (each ca. 10 pp.), one on a monophonic topic, one on a polyphonic topic.

Instructor(s): Lawrence Earp (visiting) Terms Offered: Autumn. Autumn 2018: Tuesdays 9:30-12:20 in JRL 264

MUSI 32520. Richard Wagner's Ring of the Nibelung in Performance. 100 Units.

This seminar, open to undergraduates and beginning graduate students, serves as a critical introduction to and intensive exploration of Richard Wagner's 19th century tetralogy. In addition to critical readings (e.g., by Wagner, Adorno, Nietzsche, Badiou, Dahlhaus, et al.) and screenings of a host of productions, we will travel downtown to Lyric Opera to attend performances of the Ring cycle in David Pountney's new production. Our discussions of the Chicago production will be supplemented by conversations with members of the Lyric Opera production team, including Anthony Freud, Lyric Opera's General Director. No previous knowledge is required although a curiosity about opera, German culture, media history, and/or theater & performance studies will be essential.

Instructor(s): David Levin Terms Offered: Spring

Equivalent Course(s): MUSI 24520, FNDL 23419, GRMN 23419, TAPS 26519, CMST 32119, CMST 22119, TAPS 36519, GRMN 33419

MUSI 32600. Pro-Seminar: Music 1700-1800. 100 Units.

tbd

Instructor(s): Robert Kendrick Terms Offered: Autumn

MUSI 32618. Proseminar: Early Modern Europe, 1600-1800. 100 Units.

This proseminar examines issues in European music from the late Renaissance to the French Revolution. We explore changes in cultural context, music's role in late feudal society, expressions of gender and social class, and the development of specifically instrumental repertoires in an art which continued to valorize vocality. Students work on both issues of cultural history and specific pieces as they examine music in early modern Europe.

Instructor(s): Robert L. Kendrick Terms Offered: Autumn

MUSI 32700. Pro-Sem: Music From 1800-1900. 100 Units.

This proseminar approaches nineteenth-century European music from an evolving perspective that gained momentum during the 1990s, when American musicology became more interested in the historical context. Amid this new orientation and the exploration of new areas of research, many methods and topics have remained remarkably stable. There have been only few attempts to conceive music history and historiography in a way that reflects these new perspectives and the new themes in a more comprehensive framework. This proseminar will try to make some steps in the direction of rethinking our approach to the history and historiography of music—this time with a focus on the 19th century. We will touch on a number of important topics, but no attempt can be made to be comprehensive with respect to both repertory and scholarly literature.

Instructor(s): Berthold Hoeckner Terms Offered: Winter

MUSI 32800. Proseminar: Music from 1900-2000. 100 Units.

Instructor(s): Seth Brodsky Terms Offered: Winter 2014

MUSI 32805. Prosem in Music 1900-present. 100 Units.

A seminar in twentieth- and twenty-first-century western music is a terribly hoary "topic", if such a tame word can really access the taxonomic catastrophe of "what happened in/with/to western music after 1900". This is somewhat alleviated by the "pro" in proseminar: as with the other proseminars, ours is not principally a survey, but rather an engagement "with salient scholarly issues on trends and repertoires" of its chosen time- period. Put another way: we'll be focusing more on how people within the last long decade think and write about music that emerged since 1900, and less on "what actually happened"* (the "content", history, or music-theoretical aspects of various repertoires, styles, movements, figures). In the process, we'll proceed conceptually and thematically rather than chronologically or via various "traditions"; in addition, we'll explore three mutually irreducible but often interacting fields of musical production: 1) classical or "composely" musics, 2) popular musics, and 3) jazz and improvisational idioms. We'll maintain a dual-focus how these fields listen to themselves (traditions, legacies, evolutions and revolutions) but also to each other (fusions, hybrids, crossovers) and to their other (in many cases non-Western) others.

MUSI 33000. Proseminar: Ethnomusicology. 100 Units.

This course's goal is to introduce graduate students to the history, development and theoretical underpinnings of ethnomusicology as a research discipline. In our readings, therefore, we will focus our attention on key figures and institutions, especially from the late 19th century forward; on major issues and debates in and beyond ethnomusicology; on the relationships between ethnomusicology and other research disciplines; and on emergent emphases and concerns in ethnomusicological work.

Instructor(s): Philip Bohlman Terms Offered: Autumn. Autumn 2018: Mondays 1:30-4:20pm in JRL 264

MUSI 33004. Proseminar: Ethnomusicology. 100 Units.**MUSI 33100. Jazz. 100 Units.**

This survey charts the history and development of jazz from its earliest origins to the present. Representative recordings in various styles are selected for intensive analysis and connected to other musics, currents in American and world cultures, and the contexts and processes of performance. The Chicago Jazz Archive in Regenstein Library provides primary source materials. PQ: Any 10000-level music course or ability to read music.

Equivalent Course(s): MUSI 23100

MUSI 33416. Music and Globalization in Modern Latin America. 100 Units.

This course introduces students to the cultural history of Latin America as a region and the history of the region's globalization, from the perspective of the history of Latin American modern music. Lectures, group work, readings, and individual assignments deal with the role of music in producing Latin America's modern culture from a global perspective. It deals with the histories of folk, classical, and urban musical traditions, diasporic music styles, entertainment corporations, state policies in the realm of music, music pedagogy, music and cinema, Latin American musicology, musical nationalism, and musical diplomacy. The emphasis is on the late 19th and the 20th centuries, but students interested in colonial music are welcome to take the course.

Equivalent Course(s): MUSI 23416, HIST 26116, LACS 26412, LACS 36412

MUSI 33504. Intro To World Music. 100 Units.

This course has two goals: (1) to introduce graduate students to the broad theoretical underpinnings of ethnomusicology as a research discipline and (2) to help students gain facility with the resources and perspectives that might enable them to teach a quarter- or semester-long undergraduate course on the musics of the world. As such, the readings and assignments focus on canonic materials and areas for ethnomusicological study including, but not limited to, major monographs, recorded collections and reference works examining the musics of East, Southeast and South Asia; Africa; Europe; and the Americas. Each student will be responsible for presenting brief overviews of key texts and recordings as well as devising two syllabi and a sample lecture outline by the end of the quarter.

Instructor(s): Travis Jackson Terms Offered: Autumn

MUSI 33513. Musical Performances of Race/Gender/Sexuality. 100 Units.

This course explores the relationships between race, sexuality, and gender in the context of musical performances. Understanding categories of race, gender, and sexuality as intersectional, we will explore the various ways that people construct their subjectivities and organize around issues of race, class, gender, and sexuality. Within each of these categories, multiple subjectivities emerge, allowing for us to investigate how different embodied experiences condition divergent perspectives. Structures of race, gender, and sexuality exist within broader systems of power and are not uniform. Thus, we will explore various case studies from world musical cultures, contextualizing the historical and cultural parameters. Through locally grounded case studies we will investigate race, gender, and sexuality as embedded within hierarchical power structures. Moving beyond myopic interpretations of power and resistance, we begin with understanding conceptions of the self and ideological parameters as emergent, shifting, and continuously re-performed. We ask how people respond to the global phenomena of colonialism, neocolonialism, racism, sexism, capitalism, HIV/AIDS, and other forms of oppression through musical performance. Musical performance provides a fruitful ground for unearthing the subversive potentialities of both articulated and unarticulated resistance movements. The literature of the course draws from multiple bodies of feminist theory such as Black feminist thought, postcolonial feminisms, poststructuralist feminism, and global feminist perspectives. We will also utilize theoretical frameworks that provide a lens for exploring identity politics such as critical race theory and queer theory. As we seek to untangle issues of musical performance, embodiment, movement, and representation, we will draw from ethnomusicology, performance studies, postmodern anthropology, and postcolonial theory. We will draw linkages between the various bodies of literature, examining the entry points for investigating race, gender, and sexuality as performed categories of being. These theoretical positions serve to inform our studies; I ask students to reintegrate their area studies interests through these theoretical perspectives. Noting that race, gender, and sexuality are not only academic discourses, but political positions as well, we will consider conversations outside of the academy as authorities. This includes poetry, art, theater, literature, film, music, ethnography, and everyday life. Going further, we will problematize the structures of power that authorize certain discourses as legitimate and authorial while marginalizing others.

Instructor(s): Sidra Lawrence Terms Offered: Winter 2013

Note(s): Meets with MUSI 23513

Equivalent Course(s): CRES 23513, MUSI 23513

MUSI 33517. Music of the Caribbean. 100 Units.

This course covers the sonic and structural characteristics, as well as the social, political, environmental, and historical contexts of Caribbean popular and folk music. These initial inquiries will give way to the investigation of a range of theoretical concepts that are particularly important to an understanding of the Caribbean and its people. Specifically, we will think through the ways in which creolization, hybridity, colonialism and postcolonialism, nationalism, and migration inform and shape music performance and consumption in the region and throughout its diaspora. In this course, participants will listen to many different styles and repertoires of music, ranging from calypso to kumina, from reggaeton to bachata, and from dancehall to zouk. We will also examine how the Caribbean and its music are imagined and engaged with globally by focusing attention on how and why music from that region has traveled, and been adopted and adapted by numerous ethnic and religious "others."

Instructor(s): Jessica Baker Terms Offered: Winter. Wednesdays 9:30am - 12:20pm

Note(s): Enrollment limit: 8 graduate students, 8 undergraduate students, consent-only

Equivalent Course(s): MUSI 23517, LACS 23517, LACS 33517

MUSI 33519. Aesthetics of Speed. 100 Units.

This graduate seminar is an exploration of creativity in speed. With a particular focus on music, seminar participants will survey various genres, epochs, and styles in order to understand the relationship between musical tempo and the speed of music-making, politics, perception, and culture. Where "speed" may refer to mobility, acceleration, tempo, and technicity, this course offers a thematic look at analyses of speed and acceleration, their ontological characteristics, and theoretical possibilities through a combination of philosophical and theoretical texts (including Deleuze and Guattari, Glazos, Virilio, Moten, and Sneed). Topics covered will include fastness and sexuality, technology and musicianship, and tempo acceleration and the racialization of sound. Readings will be paired with examples of accelerated music such as Kittitian wilders, Baltimore club music, and additional sounds chosen based on students' particular interests and knowledge.

Instructor(s): Jessica Baker Terms Offered: Spring. Wednesday 9:30-12:20 in JRL 264

Prerequisite(s): Graduate students only, consent for non-music students

MUSI 33600. Ethnomusicology Analysis. 100 Units.**MUSI 33614. Seminar: American Musics. 100 Units.**

This course is a selective survey of musical styles in the United States and a range of issues that accompany them. As we explore individual styles, we focus repeatedly on the positioning of musicians and musics with questions of musical practice, adaptation and appropriation, power, definition, race, geography, gender and sexuality, media, economy, politics and inequality, among others, animating our inquiry and discussions. Although we will not attempt to arrive at a coherent understanding or definition of American musics, our aim is to develop a clearer sense of the questions one has to address in making sense of them. The success of the seminar, in many ways, depends on our having fewer clear answers by its end.

Instructor(s): Travis Jackson Terms Offered: Spring

MUSI 33618. Music and Dance in the Black Atlantic. 100 Units.

Deploying the notion of the Black Atlantic as a theoretical apparatus for understanding and historicizing the emergence and mobility of Black music and dance styles, this course is a critical and historical examination of music and its attendant dance practices within African and Afro-descendant communities of the Americas, Europe, and West Africa from the 19th century through the contemporary moment. In this interdisciplinary course, participants will move chronologically and thematically from music and dance practices of enslaved Africans in the Americas to early African and Afro-American Dance Anthropology of scholars such as Zora Neale Hurston, and Katherine Dunham, and through postcolonial styles such as Jamaican Dancehall. In addition to texts and audiovisual materials, this course will be augmented by dance instruction and exploration lead by community practitioners of black dance forms. Participants will engage with notions of embodiment, improvisation, choreography, and dance ethnography through the acts of reading, listening, watching, and dancing.

Instructor(s): Jessica Baker Terms Offered: Winter

MUSI 33619. Music and Ethnic Authenticity in Mexico and Cuba. 100 Units.

Music and Ethnic Authenticity in Mexico and Cuba, 1900-1950 This course uses literary, artistic, and musical materials to compare visions of Afro-Cuban and Native Mexican cultures as imagined by artists in this time period. Some of the issues in the political and cultural changes behind the remarkable new repertoires created in these two countries include nationalism, nativism, modernism, and relations with France and the U.S. We look at representations of these non-European cultures in paintings, "high-culture" music, anthropological research, and literature. Graduate students will have longer papers and more intense readings. Students will prepare one (oral) reading report, take two short ID/listening quizzes, and prepare a final paper due on Tuesday of Week 11.

Instructor(s): Robert Kendrick Terms Offered: Autumn. Autumn 18 TR 3:30-4:50 GoH 205

Prerequisite(s): Prerequisites: ONE of the following: (a) a Music Core course (101, 102, 104, 122); OR (b) a LACS Core Civ course (LACS 161 or 163); OR (c) a RLL Latin American literature course (e.g. SPAN 219 or 220, or the equivalent). Music-reading NOT necessary; Spanish at a 103 level will help.

Equivalent Course(s): LACS 33619, LACS 23619, MUSI 23619, SPAN 23619, SPAN 33619

MUSI 33706. Music of South Asia. 100 Units.

The course explores some of the music traditions that hail from South Asia—a region defined by the countries of India, Pakistan, Sri Lanka, Nepal, Bhutan, Afghanistan, Maldives, and their diasporas. The course will study music and some of its inextricably linked forms of dance and theatre through the lens of ethnomusicology, where music is considered in its social and cultural contexts. Students will develop tools to listen, analyze, watch, and participate in South Asian forms of music-making, using case-study based inquiries as guides along the way.

Instructor(s): Ameera Nimjee Terms Offered: Spring

Equivalent Course(s): SALC 20800, SALC 30800, RLST 27700, MUSI 23706

MUSI 33714. Introduction to World Music. 100 Units.

TBD

MUSI 33800. Ethnographic Methods. 100 Units.

The topic of this seminar varies per faculty member.

Instructor(s): Jessica Baker Terms Offered: Winter 2018

MUSI 33804. Rock. 100 Units.

This course has as its focus the varied social agents, discourses, processes and institutions that contribute to current and historical understandings of rock. Issues of musical style, questions of historiography, the technologies and techniques of audio recording, the structures of the recording industry, the status of so-called subcultures and mainstreams, and the politics of gender, race and sexuality are among the items which our readings, class discussions and assignments will explore. As such, the inculcation of an "appreciation" of rock, the transmission of a canon and the validation of individual musical tastes are projects that are antithetical to our inquiry. Students will also be encouraged, through select readings and listening assignments, to contextualize rock within a broad field of twentieth- and twenty-first century music-making and attendant social, political and economic processes.

Equivalent Course(s): MUSI 23804

MUSI 33817. History in Practice: Musical Multiculturalism in Brazil. 100 Units.

Brazil is a country uniquely identified with its musical history. This course is designed to describe how Indigenous, African, and European influences merged over the course of the 19th and 20th centuries to create Brazil's rich and complex musical tradition. We will focus especially on the interaction of erudite and popular influences, and on the musical and social processes that gave birth to distinctly Brazilian genres such as Samba, Choro, Maracatu, and Frevo. Taught by a renowned Brazilian composer and guitarist, this course will explore Brazil's musical history through live musical performance as well as lectures, readings, recordings, and discussion.

Equivalent Course(s): MUSI 23817, LACS 35112, HIST 36218, HIST 26218, LACS 25112

MUSI 33900. Music Anthropology. 100 Units.

This course is a selective introduction to anthropology and related, influential strands of high/critical theory, on one hand, and the changing relation of both to the study of music and the field of ethnomusicology, on the other. After an opening situating the course's origin and content in university and broader intellectual currents, we will proceed through a series of modules focused on particular issues and approaches: culture; society; research paradigms and theory; ethnography; intellectual crises and questions; the emergent field known as sound studies; and, finally, anthropological studies of art and music. Rather than providing a comprehensive survey, then, this course presents students with a series of paths they might fruitfully explore further, a set of tools for navigating the heterogeneous, distributed nature of fields with ever-proliferating sub-fields and research/writing paradigms.

Instructor(s): Travis Jackson Terms Offered: Variable

MUSI 34000. Composition Lessons. 100 Units.

This course consists of individual weekly composition lessons.

Instructor(s): Various Terms Offered: Autumn, Spring, Winter

Prerequisite(s): MUSI 26100 and consent of instructor

Note(s): Students may enroll in this course more than once as an elective, but it may be counted only once toward requirements for the music major or minor.

Equivalent Course(s): MUSI 24000

MUSI 34100. Seminar: Composition. 100 Units.

The composition seminar is a weekly session designed for graduate students in composition. It is an open forum for composers to listen to recent music, including their own, and to discuss issues connected with trends, esthetics, and compositional techniques. The entire composition faculty takes part in these sessions. The composition seminar often hosts well-known visiting composers whose works are performed in the city by various groups or ensembles, as well as performers specializing in new music and contemporary techniques.

Instructor(s): Sam Pluta Terms Offered: Autumn. Autumn 2018, Tuesdays 5:00-5:50, LC 901

MUSI 34317. Russian Literature in the Composer's Ear. 100 Units.

The dialogue between author and composer in Russia is probably without parallel in other national traditions. This course will examine the musical transposition of literary works in Mussorgsky, Tchaikovsky, Rimsky-Korsakov, Stravinsky, Shostakovich, Prokofiev and Shchedrin. While Stravinsky makes use of oral tradition and folk culture, our other examples will be drawn from classic literary works, primarily from the 19th century. We will integrate close textual readings with focused analyses of the musical pieces, while devoting considerable attention to contexts of composition and reception. Throughout, we will be concerned with cultural and socio-political events from the mid-19th century to the fall of Soviet Union—events that colored the performance and interpretation of these works and often set the tone for their composition as well.

Equivalent Course(s): MUSI 24317, REES 34416, REES 24416

MUSI 35013. Music and Philosophy. 100 Units.

What is distinctive about a philosophical explanation of musical experience? Through close examination of canonical readings from the nineteenth and twentieth centuries, this course will allow us to reflect critically on the ways in which philosophical discourse can inform, distort, deepen, broaden, or even silence our accounts of musical experiences, both past and present. Particular attention will be paid to the ways in which continental philosophers have tried to account for the development of modernist aesthetics since the late nineteenth century. Questions we will confront include: Does music, itself, represent anything? How does its meaning (or lack thereof) relate to the meaning of opera libretti, song texts, and programmatic narratives? How does sung music present the human voice? Is music exclusively temporal, or does it have a distinct spatial dimension like architecture? Does its temporality bear any relationship to the temporality of life? Or is music a cryptic language that indicates something we cannot speak or think? Does it express something unique about the memory of human suffering and trauma? And what is music's relationship to the body, to ecstasy, and to erotic desire?

Instructor(s): M. Gallope Terms Offered: Variable

Equivalent Course(s): MUSI 25013

MUSI 35014. Art and Public Life. 100 Units.

The aim of this seminar-colloquium will be to work through some of the most advanced thinking on ideas about publics and their relation to questions of community, politics, society, culture, and the arts. From John Dewey through Hannah Arendt and Jurgen Habermas, the notion of the public has remained central to a wide variety of debates in the humanities and social sciences. What is a public? How are publics constituted? What is the role of real and virtual space, architectural design, urban planning, and technical media, in the formation of publics? And, most centrally for our purposes, what role can and do the arts play in the emergence of various kinds of publics? The colloquium aspect of the course will involve visiting speakers from a variety of disciplines, both from the University of Chicago faculty, and from elsewhere.

Instructor(s): W.J.T. Mitchell, T. Gates Terms Offered: Autumn

Equivalent Course(s): ENGL 32821, ARTV 37911, ARTH 47911, CMST 37802

MUSI 35800. Tuning Theory. 100 Units.

This course begins with a description of the logarithmic perception of pitch increments. We then cover the historically important tunings of the diatonic scale—just intonation, Pythagorean and meantone tunings, and twelve-note equal tuning. A parametric representation is described that reveals that the historic tunings are particular members of a general family of diatonic tunings. We also discuss the individual chromatic properties of certain equal tunings, focusing on the tunings of 12, 15, 17, 19, and 31 notes.

Instructor(s): E. Blackwood Terms Offered: Spring

Prerequisite(s): Ability to read music

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): MUSI 25800

MUSI 35820. Analysis of String Quartets. 100 Units.

This course focuses on the genre of the string quartet mostly in the 18th and 19th centuries. We will analyze quartets by Haydn, Mozart, Beethoven, Schubert, and Bartók using several different methodologies. Students will become proficient in analyzing metric, harmonic, formal aspects of the musical language, as well as be able to articulate the development of this venerable genre.

Instructor(s): Jennifer Iverson Terms Offered: Spring

Equivalent Course(s): MUSI 25820

MUSI 35918. Wagner's "Ring" in Performance. 100 Units.

Offered in conjunction with Lyric Opera's production of "Siegfried", this course considers Richard Wagner's tetralogy "The Ring of the Nibelung" by examining its musical language, scenic terms, political aspirations, and production history. While we will consider "The Ring" in its entirety, we will focus on "Siegfried" complementing our readings and discussions with field-trips to rehearsals at Lyric Opera, seeking to understand the Chicago production in a broader context of stage productions prepared over the course of the past 50 years.

Instructor(s): David Levin, Steven Rings Terms Offered: Autumn

Prerequisite(s): No prerequisites

Note(s): An interest in one or more of the following is preferable: opera, musicology, German studies, theater & performance studies.

Equivalent Course(s): MUSI 25918, TAPS 36350, TAPS 26350, GRMN 29350, GRMN 39350

MUSI 36217. Analyzing Popular Music. 100 Units.

This class will explore different theoretical approaches to the analysis of twentieth and twenty-first century popular music. This will include examinations of phrase structure, form, pitch, timbre, harmonic syntax, meter and rhythm, transcription, and music-text relations. Students will analyze songs from a variety of popular music genres and participate in discussions about song interpretation, situating examples within broader contexts of time period, politics, and popular culture.

Equivalent Course(s): MUSI 26217

MUSI 36413. Modernist Movements: Stravinsky-Balanchine, Cage-Cunningham, a. 100 Units.

Focusing on the work of the two most celebrated composer-choreographer teams in the twentieth-century United States-Igor Stravinsky and George Balanchine, John Cage and Merce Cunningham-this course will explore modernist choreomusicalities-i.e., relationships between music and dance-and their historical, cultural, and aesthetic contexts and implications. Following a quick overview of some influential predecessors (Duncan and various then dead canonical composers, Stravinsky and Nijinsky, Graham and Copland), we will view and read about choreographies ranging from Balanchine's first ballet created in the U.S. (Serenade, 1934, to the eponymous music of Chaikovsky), Cage and Cunningham's early "expressive" dances, two of the three Stravinsky-Balanchine "Greek" ballets (Apollo and Agon), and the chance-derived Cage-Cunningham Suite for Five all the way up to Cunningham's chance-dependent 2003 collaboration with Radiohead and Sigur Rós, Split Sides. We will conclude with a brief examination of dance that is often labeled as postmodernist, including that of choreographers from the Judson Dance Theater, Mark Morris, and William Forsythe. , , While exploring the formal, historical, and theoretical aspects of these collaborations, our ultimate goal will be to figure out what constitutes persuasive description of and discussion about the interaction between dance and music, two especially fugitive arts. We will read critics and scholars who have attempted to meet this challenge, and we will attempt it ourselves in several shared low-stakes response papers. In addition to our writing (including a final paper) and readings-not only from dance and music studies but also performance, American, modernist, art/visual, and gender/sexuality studies-we will view a considerable amount of video, likely attend a live performance together, and possibly even dance a bit ourselves.

Instructor(s): Daniel Callahan Terms Offered: Winter 2013

Note(s): Meets with Music 26413

Equivalent Course(s): MUSI 26413, TAPS 28437

MUSI 36617. Electronic Music I: Composing with Sound. 100 Units.

Equivalent Course(s): MUSI 26617

MUSI 36715. Composing for Orchestra in the 21st Century: Innovation, Tradition, and Institution. 100 Units.

This course is a comprehensive look into the modern orchestra's relationship with new music over the past few decades. A major component will be examining repertoire of the past fifty years, seeing how new techniques, aesthetics, and technologies (electronics, computer-assisted orchestration, acoustics of instruments and halls) have influenced how composers approach writing for the orchestra. We will explore pathbreaking works that involve spatialization, alternative tunings, and electronics. At the same time, we will consider questions such as: Is it possible to be innovative with the orchestra in our time? And is this even an objective pursued by composers for the medium? The orchestra, that most tradition-bound apparatus, is on the one hand the most fertile ground for exploring new ways of thinking of timbre, spatialization, and new technologies. And yet, in dealing with economic realities and practical responsibilities, as well as a commitment to canonical practice, orchestras are also the most resistant to change and exploration. What are the limitations and expectations, artistic and financial, of music created for orchestral institutions? How is cultural prestige at play? What aesthetic choices are made in the programming and writing of orchestral music, and which arise out of pragmatism and marketing? What roles do the artistic administrators, composers-in-residence, publishers, critics and publicists play in changing the direction of orchestras? We will talk to people

Instructor(s): A. Cheung Terms Offered: Autumn. Autumn 2018 W 9:30-12:20 JRL 264

Prerequisite(s): MUSI 27100-27200-27300; MUSI 25300; or consent of instructor.

Equivalent Course(s): MUSI 26915

MUSI 36718. Approaches to Live Electronics. 100 Units.

Hand-built circuits, tape loops, feedback, filters, ring modulators, turntables, live-processing software environments, microphones, and human-machine interface designs. In this course, we will study current and historical approaches to the performative use of hardware and software environments in music, and will follow the practice as it continues to redefine music composition and improvisation in the 21st century. Study will be repertoire-based, drawing from the work of artists ranging from David Tudor to Herbie Hancock to Grandmaster Flash to Kaija Saariaho.

Instructor(s): Sam Pluta Terms Offered: Autumn

Equivalent Course(s): MAAD 16718, MUSI 26718

MUSI 36720. 16th Century Counterpoint. 100 Units.

TBD

Instructor(s): James Kallembach

Prerequisite(s): MUSI 153 or equivalent

Equivalent Course(s): MUSI 26715

MUSI 36817. Electronic Music II: Introduction to Computer Music. 100 Units.

Electronic Music II is an introduction to computer-based sound art and live electronic music performance. Our primary tool for this course will be SuperCollider, a computer music programming language designed for composition and real-time music applications. Through this language we will explore the foundations of computer music, including digital instrument design, sequencing, live processing, sound diffusion, and various approaches to algorithmic music generation.

Equivalent Course(s): MAAD 24817, MUSI 26817

MUSI 36914. Computer/Electronic Music: Aesthetics, Theory and Repertoire. 100 Units.

Many musical visionaries have at one time or another declared that the liberation of music was partly (or entirely) linked to the growth of electronic technology. Many of the aesthetic concerns of 20th century concert music only becomes manifest as the technology has advanced. Whether you accept or reject that notion, there is no denying that electricity, electronic and computer technology has had a profound and irrevocable impact on the aesthetics, economics, and social forces which drive and respond to musical innovation. We will endeavor to examine the history, literature, aesthetics and theory of electro-acoustic music and the technology that produces it from primitive beginnings at the end of the 19th Century to the present day with special emphasis on the second half of the 20th Century and the first decades of the 21st.

Instructor(s): H. Sandroff Terms Offered: Varies

Prerequisite(s): Any 100-level music course or consent of instructor.

Equivalent Course(s): MUSI 26914

MUSI 36918. The Jazz Orchestra and Orchestral Approaches to Jazz. 100 Units.

This course offers several views of what it has meant to write for the "jazz orchestra." In the history of jazz, which has largely been defined by solo improvisation, valued individualism of language and technique, and has since the advent of bebop been primarily associated with small combos, what does it mean for composers who have ambitions that extend beyond typical expectations of instrumental forces, duration, and form? Instead of offering a comprehensive overview of large ensemble jazz writing, we will focus on specific examples that have challenged conventions and redefined idioms. From the innovations in orchestration and scale of the Duke Ellington Orchestra and the classic Gil Evans/Miles Davis albums, to the "progressive" experiments of Stan Kenton (and later Don Ellis), to the intergalactic theater of the Sun Ra Arkestra, we will examine complex issues of tradition, community, and race that have accompanied these collaborations, and the compatibility (or not) of musical challenges regarding improvisation, notation, and pedagogy. An important though less emphasized component of our discussion will be the response of primarily orchestral composers who incorporate elements of jazz scoring and improvisation, and the impact of movements such as Third Stream on such confluences of tradition.

Instructor(s): Anthony Cheung Terms Offered: Spring

Equivalent Course(s): MUSI 26918

MUSI 37100. Seminar: History of Music Theory I. 100 Units.

In this pro-seminar we will survey some major themes that emerge in pre-modern music theory (antiquity to about 1700). Among the topics we will study are the nature and classification of mode, classical canonic (interval theory), rhythm and mensuration, discant and contrapunctus theory, tuning and temperament, and the "periphery" of music theory: *musica humana*, magic, and the emergence of modern science. (These latter topics will indeed help us critically scrutinize just what we might mean by "music theory" when considered historically.)

Instructor(s): Thomas Christensen Terms Offered: Autumn. Autumn 2018: Fridays 9:30-12:20 in JRL 264

MUSI 37200. Seminar: History of Music Theory II. 100 Units.

This course explores topics in the history of music theory from the seventeenth through twentieth centuries (with excursions into the sixteenth and twenty-first centuries as necessary). We will focus on a range of topics, including: scientific empiricism and music theory, musical rhetoric, the transition from modal to tonal thinking, the *partimento* tradition, harmonic theory in the eighteenth and nineteenth centuries, theories of modulation and tonality, theories of form, theories of musical rhythm, hermeneutic and semiotic approaches to musical analysis. Although secondary literature on these topics will be an important part of the assigned readings, our focus will be on primary sources. Not all of these have been translated, and so a reading knowledge of French and German will be useful. (Of course, secondary sources may be in either of these languages as well.) In addition to doing the readings and participating in class discussion, students will make a short presentation on conceptual material relevant to the course and complete two brief analysis assignments. There will be a final exam similar in design to the theory essay exams given during comprehensives.

Instructor(s): Lawrence Zbikowski Terms Offered: Winter 2015

Note(s): This course is offered in alternate years.

MUSI 37619. Music and German National Identity. 100 Units.

Over the course of the 19th century, Germans came increasingly to think of themselves as the "People of Music." This course will examine the key role played by music in the formation and propagation of German national identity, from the late 18th to the early 20th centuries. The course will investigate how the Germans' self-identification with music emerges and evolves in shifting historical circumstances, through reference to a series of cultural touchstones (the symphony, Hausmusik, the choral movement, Bayreuth), and how "Germanness" in music came to be defined against a variety of Others (Italians, French, Jews, American Jazz, etc.). On a deeper level, the course explores how the fundamental alliance between aesthetic and political values inherent in this identity transmutes over time. We will draw on a variety of secondary (historical, musicological) works to delineate the development of this identity, but always in conjunction with works of fiction (both prose and stage) that illuminate and/or interrogate this identity. Writings by E. T. A. Hoffmann, Heinrich von Kleist, Eduard Mörike, Friedrich Nietzsche, Richard Wagner, Thomas Mann, Theodor Adorno, and Franz Kafka.

Instructor(s): Colin Benert Terms Offered: Spring
 Note(s): All readings in English
 Equivalent Course(s): MUSI 27619, GRMN 37619, GRMN 27619

MUSI 37709. Soul and the Black Seventies. 100 Units.

This course considers in what ways soul as cultural genre and style shaped, and was shaped by, the political, social, structural, cultural, and ethical shifts and conditions associated with the 1970s. It will focus on popular music as both symbolic field and system of production, while also taking up other forms of expression-literary, intellectual, institutional, activist-in order to propose an alternate, and compelling, archive for this era. The course intends to deepen understanding of the feel and meaning of soul by relating it to consequential legacies of the 1970s: urban identity and crisis, emerging limitations of racial reformism, the deepening class stratification of Black life, and the radical disruption of social norms through feminism, in particular Black feminism.

Instructor(s): A. Green Terms Offered: Spring
 Prerequisite(s): Graduate students by consent of instructor.
 Equivalent Course(s): MUSI 27709, CRES 27709, HIST 27709, GNSE 27709, CRES 37709, HIST 37709, GNSE 37709

MUSI 37914. A Third Way: Ligeti's and His Students. 100 Units.

Equivalent Course(s): MUSI 27914

MUSI 38000. Orchestral Conducting. 000 Units.

This year-long course will provide a conceptual and practical introduction to the art, the craft, and the practice of orchestral conducting. The course is targeted particularly toward graduate students in Music Composition, but it is open to advanced musicians with orchestral performance experience as well. Ideally, students enrolled in the course should have had some experience playing or singing in a performance ensemble, and/or have a basic familiarity with orchestral instruments and traditional repertoire. Proficiency in sightreading, ear-training, and basic keyboard skills are prerequisites for the course, but will not be specifically included in the curriculum. Autumn quarter work will focus on the practical and conceptual foundations of conducting: beating patterns, notation, conventions, and facility, as well as artistry, interpretation, and creativity on the podium. Winter quarter topics will include recitative, mixed meters, and rehearsal approach, as well as actual performance opportunities for each conductor. Spring quarter focus will extend to the challenges presented by 20th and 21st century repertoire, as well as historical perspective on the evolving role and responsibilities of both composer and conductor in musical performance. Students should register for the course in all three quarters; they will receive an 'R' in autumn and winter, and a final grade in the spring. Note: this course is required for all graduate students in Music Composition.

Instructor(s): Barbara Schubert Terms Offered: Autumn, Winter, Spring 2014 2015 2015
 Note(s): The overall work load of the course is commensurate with a one-third course load per quarter. Students receive course credit only upon completion of the entire year's work. Students should register for the course in all three quarters; they will receive an 'R' in autumn and winter, and a final grade in the spring. This course is offered in alternate years.

MUSI 38115. Orchestral Conducting. 100.00 Units.

This two-quarter introductory course focuses on the art as well as the craft of orchestral conducting. Designed primarily for undergraduate students who have had experience playing in an orchestra, wind ensemble, chamber group, or choral ensemble, the curriculum includes practical instruction, podium experience, background reading, and concert/conductor observation. Through a combination of classroom work, individual instruction, and supplemental ensemble sessions, students will gain significant practical experience in conducting. Weekly class meetings will incorporate singing, keyboard work, and instrumental participation by class members and guest musicians. Important technical exercises will be assigned every week, along with modest reading selections. Several short papers and classroom presentations will be assigned each quarter, in conjunction with background readings and classroom topics. The overall goal of the course is to promote the students' understanding and appreciation of the technical responsibilities and the artistic possibilities of the conductor's role, and to promote a basic proficiency in the craft of conducting an instrumental ensemble.

Instructor(s): B. Schubert Terms Offered: Various
 Note(s): This is a 2-quarter course, and 100 units will be awarded upon completion of the final quarter.
 Equivalent Course(s): MUSI 28000

MUSI 38717. Voice Groove Song. 100 Units.

Equivalent Course(s): MUSI 28717

MUSI 38914. Munich-Chicago Performance Laboratory: Jephtha's Daughter. 100 Units.

In July 2015, the Bavarian State Opera in Munich will present the world premiere of a piece tentatively titled *Jephtha's Daughter*, to be directed by Saar Magal (choreographer and director, Tel Aviv) and conceived by Magal in collaboration with University of Chicago professor David Levin. Magal and Levin will offer a laboratory course in which to prepare the piece. As presently conceived, the piece will combine theater, dance, oratorio, film, contemporary composition, and a variety of contemporary performance idioms to adapt and interrogate the story of Jephtha's daughter (in the Book of Judges, from which the story is adapted, she remains nameless). We are hoping to attract students keen to explore a broad cross-section of materials through seminar-style discussion and experimentation on stage. (We will work through biblical criticism, films like *Harmony Korine's Spring Breakers* (2013) or Ulrich Seidl's *Paradise: Love-Faith-Hope*, operas like Mozart's *Idomeneo*, oratorios like Handel's *Jephtha* and Carissimi's *Jephtha*, and a range of critical theory, including Rene Girard's *Violence and the Sacred* and Derek Hughes's *Culture and Sacrifice*). Stage work will encompass improvisational, physical, and text-based work. Students with an interest in any of the following are especially welcome: adaptation, theater practice, performance theory, dramaturgy, design, and/or editing.

Instructor(s): David Levin, Saar Magal Terms Offered: Autumn

Prerequisite(s): Undergraduate students require consent of instructor.

Equivalent Course(s): MUSI 28914, RLST 28914, GRMN 28914, JWSC 28914, GRMN 38914, TAPS 28417, RLIT 38914

MUSI 38917. Music Archeology. 100 Units.

Equivalent Course(s): MUSI 28917

MUSI 39900. Independent Study. 100 Units.

Independent study with an individual faculty member. Open to graduate students with consent of requested faculty member.

Terms Offered: Spring

MUSI 41000. Graduate Colloquium: Music. 000 Units.

The Colloquium is a series of lectures followed by discussion and normally given by speakers from other institutions who are specially invited by the Music Department to share their recent research or compositions with students and faculty. All lectures take place on Friday afternoons.

MUSI 41220. Making Medieval Motets: Materiality, Intertextuality, and Compositional Craft. 100 Units.

This course explores current understandings of the medieval motet, in the wake of a flurry of recent scholarly interventions in monographs by David Rothenberg (2011), Emma Dillon (2012), Jennifer Saltzstein (2013), Anna Zayaruznaya (2015 and 2018), Catherine A. Bradley (2018), and Karen Desmond (2018). The new genre of the motet emerged in early thirteenth-century Paris in the cultural circles surrounding Notre Dame Cathedral and the burgeoning Parisian University. It represented a radically new form of polyphonic composition that frequently combined sacred and secular elements and traditions to sometimes shocking and ironic effect. Beginning with largely anonymous motet creations in the thirteenth century, which often borrowed and/or re-texted pre-existing materials, the course concludes with the carefully-curated 'complete works' collections overseen by Guillaume de Machaut in the mid fourteenth century. Through readings that span a diverse range of scholarly approaches-from sound studies to the study of musical monsters-we will investigate motets ca. 1200-1350 from various angles, engaging with questions of cultural contexts, audiences, and manuscript production; musical chronologies, quotations, and notations; the sonic impact of polytextuality; intertextuality and textual hermeneutics; authorship and authoriality.

Instructor(s): Catherine Bradley Terms Offered: Winter

MUSI 41500. Dissertation Proposal Seminar. 100 Units.

The purpose of this seminar is to assist students (typically in their third year) in crafting a dissertation proposal, gaining critical feedback from their peers, and honing compelling research projects. The meeting schedule of the seminar will be flexible: beginning in the fourth week of Autumn term, we will meet about once every two weeks; it may be, however, that we pick up the tempo a bit during Winter term, such that during Spring term we can slow it down a bit to allow students more time to work with their advisors on the formulation of their research projects. Once I know the schedule of the Department workshops I will schedule the meetings of the DPS to avoid conflicts with classes, workshops and other events, and distribute an initial assignment for reading and discussion.

Instructor(s): Philip Bohlman Terms Offered: Autumn Spring Winter. Autumn 2018, Thursdays 2:00-4:50pm

Note(s): Participants will include students in Ethnomusicology and History/Theory who are writing dissertation proposals, as well as Composition students working on a Minor Field Paper.

MUSI 42016. Seminar: History of World Music Recording. 100 Units.**MUSI 42113. The Silence of Music. 100 Units.**

Music is always far more than sound, for it ceaselessly strives to be more than itself. It is because music pushes beyond the bounds of the sonic that the aesthetic, sacred, and political accrue it, affording it the multiple conditions of power. During the course of this seminar we examine the metaphysics and ontologies of music in ways that allow us to respond to music in its frightening fullness, the silence that, at once, can result either from the absence of sound or from the deafening impact of music in the service of power. The silence of music embodies multiple meanings, ranging from the absence of being to the negation of being. If concepts of music privilege the soundness of music, the themes we explore in the seminar draw us into a counterintuitive way of understanding how music comes into being and what kinds of cultural work it mobilizes. We seek ways to identify and understand the conditions of music that lie beyond sound, experiencing music not just as "humanly organized sound," one of the standard definitional strategies of ethnomusicology, and making a disciplinary move that stretches beyond the limits of even those new academic formations, among them "sound studies," that still approach sound as if it is a given in the perception of music. We begin the seminar by broadening the aesthetic considerations brought to bear on music, drawing from Western and non-Western musical thought, as well as the aesthetic use of music in religious traditions throughout history. We modulate from myth to history by turning to historical considerations that arose from the encounter unleashed by the Age of Discovery. Midway through the seminar we introduce additional aesthetic registers by turning to the body as a site of response and perception, not simply as a means of sound production. Following its affective emergence, however, the body falls victim to the full force of modernity, the genocides that calibrate our own age. Revival with its musical and sacred meanings, bring us in the final weeks to our inconclusive conclusion, the history of the present that a multidisciplinary musical scholarship makes possible. The individual themes we trace during the weeks of the seminar afford us possibilities to follow distinctive historical paths, alternatives to the silencing impact of a hegemonic Western music history. The religio-aesthetic foundations of the seminar lie in the renewing forces of ontology, eschatology, and soteriology, which give us new ways of listening beyond sound to experience musical meaning.

Instructor(s): Philip Bohlman Terms Offered: Winter 2013

Note(s): Graduate students in all disciplines of Music are welcome to take this seminar. Students from other departments, especially those for which the aesthetics, politics, and sacred meanings of music play a significant role, are similarly welcome to take the seminar.

MUSI 42117. A Global Sonic History in 30 Objects. 100 Units.

Students will draw upon the wide range of disciplinary perspectives that contribute to sound studies. Collectively they will use these to understand the historical meaning present in the materiality of what we call the "audio moment." Critical to the audio moment is the transformation from object to subject, from the material to the sonic. These transformations unleash meaning and generate the multiple subjectivities from which history emerges. Basic ontologies will be challenged in our consideration of each object. The objects we consider are largely not primarily associated with music alone, but through their transformation into audio moments we are often able to understand just where music situates them in the human subjectivities of different societies. In addition to its interdisciplinarity this CDI seminar will be broadly comparative and will draw upon diverse sources and collections for its objects (e.g., with visits to urban and architectural spaces on campus, the Art Institute of Chicago, the Digital Media Archive). The goal of such comparative investigation is not to undo ontological assumptions about the dialectics of music/sound, but rather to use the collective thought that grows from the seminar participants to generate new approaches to the aesthetics and epistemology of sound and history globally.

Equivalent Course(s): CDIN 42117, CMES 42117, SALC 42117

MUSI 42119. Milton's Italian Music. 100 Units.

This seminar examines John Milton's encounter with Roman culture, first and foremost music, around 1640. It is built around the April 2019 performance in Logan Center of this music by the English early music group *Atalanta*, for which students will prepare notes and preconcert activities. Reading Milton's youthful texts, as well as literature and poesis per musica from Rome, while studying the musical genres and personalities that we know he encountered there, gives insight into this encounter between Puritan and Barbarini sensibilities, seemingly so distant, but mediated via music. In addition to preparing for the concert activities (including interacting with the singers in a workshop), students will write a research paper. Prerequisites: no music reading needed, but experience with 17th-century English or Continental literature will aid in that case.

Instructor(s): Robert L. Kendrick Terms Offered: Winter

Prerequisite(s): Prerequisites: no music reading needed, but experience with 17th-century English or Continental literature will aid in that case.

Equivalent Course(s): ITAL 40119, ENGL 42119

MUSI 42120. Music and the Global Migration Crisis. 100 Units.

TBD

Instructor(s): Philip Bohlman Terms Offered: Autumn

Prerequisite(s): Students from across the Humanities, Social Sciences, and Divinity are welcome.

MUSI 42208. Eclecticism. 100 Units.

Scholars, critics, musicians and fans often deploy the noun "eclecticism"-and its related adjective and adverb forms-to buttress positive evaluations of musicians, musical styles, and musical productions. In this seminar, we will examine the range of meanings and usages of eclecticism in musical discourses, particularly those from the twentieth and twenty-first centuries. Our readings will focus primarily on popular musics and jazz and will approach the topic from the standpoints of ethnomusicology, historical musicology, music theory, and music criticism. Among the questions we will address are the following. What does it mean to describe an artist, a style or a recording as eclectic? In what kinds of discursive fields can one locate eclecticism? What is its relationship to other terms that have performed similar work in the past, e.g., vanguardism, postmodernism, experimentalism, cosmopolitanism? What terms serve as foils for eclecticism, and how might we relate both sets of terms to continued assertions of the existence of musical authenticities? Likewise, how might we understand the articulations of eclecticism and its counterparts with issues of (musical) categorization?

MUSI 42217. Sounding the Archipelago. 100 Units.

The word archipelago [ἀρχι- -arkhi- ("chief")-and πέλαγος-pélagos ("sea")] was used in medieval Italy to refer to the Aegean Sea, and later referred to the Aegean islands. Currently, it refers to any island group or, in some instances, to a sea containing a large number of scattered islands. By considering archipelagic global spaces such as the Caribbean basin, the Mediterranean Sea, and the Pacific Ocean, "Sounding the Archipelago" is concerned with discursive and material networks of islands, oceans, and continents as they pertain to processes of music-making. Drawing from an interdisciplinary body of scholarship including texts in ethnomusicology, philosophy, geography, island studies, postcolonial studies, and comparative literature, this seminar examines the theoretical and thematic possibilities of an archipelagic framework of relation. Considering the material and theoretical tension between land and water, and between island and mainland (continental) relations, participants will investigate the types of connections that become visible and audible when island groups are regarded not exclusively as sites of cultural and musical production and circulation, but rather, as models. Specifically, what does it mean to think with a place instead of exclusively about it? How do we think and write about networks, connections, and mobility in ways that foreground in-between spaces and sounds alongside the discourses and epistemologies that constitute them? Where "sounding" refers to measuring the depth of a body of water, to preliminary steps before further action and, of course, to the presence of resonant sound, participants in "Sounding the Archipelago" will critically engage with the archipelagic as a new intellectual field and question its efficacy and suitability to the study of music.

MUSI 42220. Racialization and Music. 100 Units.

TBD

Instructor(s): Travis Jackson Terms Offered: Spring

MUSI 42416. Issues in Black Sacred Music. 100 Units.

Equivalent Course(s): RAME 42416

MUSI 42616. Indigenous Sound Studies. 100 Units.**MUSI 42619. Gender Theory in Ethnomusicology. 100 Units.**

This graduate seminar introduces students to the history, development, and current status of gender and feminist theory in ethnomusicology. Issues we will discuss include: gender in ethnomusicological fieldwork; early feminist critiques in ethnomusicology; gender, body, and performance; sexuality in music; musical masculinities; music technology and gender; gender and labor; and intersectional feminist ethnomusicology. Ethnomusicology is deeply interdisciplinary, so our readings will include relevant texts from anthropology, performance studies, and historical musicology.

Instructor(s): Anna Schultz Terms Offered: Winter. Friday 9:30-12:20 in JRL 264

Prerequisite(s): Graduate Students Only, consent for non-music majors

Equivalent Course(s): GNSE 42619

MUSI 42719. Music, Emotions and Modernity. 100 Units.

This seminar explores the relationship between music and emotion, focusing on emotions that have a special affinity with the experience of modernity, as expressed in music and film. A major portion of the seminar will be concerned with mixed emotions, including forms of pleasurable sadness, ranging from the Elizabethan cult of melancholia prominent in the music of John Dowland to modern bitterness, as manifest in nineteenth-century melodrama and such films as *Back Street* (1941) and *La La Land* (2016). Readings will include scholarship in musicology and film studies as well as empirical research in psychology and affect theory. Participants will take turns in functioning as "experts" for select seminar sessions by preparing readings and objects for class discussion. Participants taking the class for credit will present a 25-minute research paper at a mini-conference in Week 11.

Instructor(s): Berthold Hoeckner Terms Offered: Autumn. Offered Autumn 2018 Thursdays 9:30am-12:20pm in JRL room 264

Equivalent Course(s): CMST 42719

MUSI 43013. Case Studies in the Post-War Avant-Garde. 100 Units.

This seminar will tack between two weaving paths: first, an engagement with some of the most important actors in postwar European composition; and second, an introduction to the work of psychoanalyst Jacques Lacan and his recent readers, and its musical application. The first, and substantially wider path entails an exploration of issues in postwar European modernism via four of its most established, influential, and idiosyncratic composers: Italy's Luciano Berio (1925-2003), Hungary's György Ligeti (1923-2006), and Germany's Helmut Lachenmann (b. 1935) and Wolfgang Rihm (b. 1952). Disparate in style and technique, allegiant to different aesthetic and political traditions, they nonetheless share some "elective affinities," in particular their (not entirely avowed) sympathy with T.W. Adorno's Gordian Knot of a claim that "art must be and wants to be utopia," but simultaneously "will not allow itself to be utopia". In the course of our explorations, we'll become intimately acquainted not only with the works, but also the discursive world (essays, interviews, analyses) of each of these composers. We'll also look closely at the work of Adorno and its complicated influence on these composers, concentrating in particular on writings from the long decade after his return to Germany. At the same time, this seminar will also provide some strategically awry perspectives on its material via theories and concepts from Lacanian psychoanalysis, both through Lacan and others (Žižek, Fink, Verhaege, et al.). We'll concentrate particularly on the Lacanian notion of fantasy, and its promising capacity for bridging the psychic, ideological, and music-analytic registers of the texts taken up. How, for instance, can the "impossible relationship" between art and utopia staged in Adorno's writings be read with (and not simply onto!) the stagings of similarly impossible relationships between stasis and articulation in Ligeti; object and gloss in Berio; form and hunt in Rihm; tone and noise in Lachenmann? And how might these stagings reveal the entanglement of the composer's political/cultural arena and writing desk?

Instructor(s): Seth Brodsky Terms Offered: Winter 2013

MUSI 43113. Tonalité 100 Units.

In 1832, the Belgian musicologist Joseph-Francois Fétis presented a public lecture in Paris in which he elaborated an ambitious theory of musical "tonalité." Although the details of his theory were heavily disputed over the next decades by scholars, Fétis's terminology nonetheless proved indispensable, one that we continue to use-and argue about-to this day. In this seminar, I want to use Fétis's writings as a jumping-off point in order to consider many of the wider ramifications that the concept of tonality had in a variety of musical sub-fields in the 19th century (with occasional nods towards 20th-century scholarship). We will explore four main areas: historical musicology, ethnomusicology, music theory, and composition. 1. Fétis's rigid bifurcation of music into "modern tonality" and "plain-chant tonality" (a division that he pinned precisely at the year 1605), led to a vigorous debate among scholars regarding the empirical semiotics of tonality. In particular, scholars who were then beginning to study Gregorian chant as part of the nascent chant-reform movement (de la Fage, Danjou, d'Ortigue) argued about the nature of ecclesiastical modality (with important implications to their reading and editing of chant and early polyphony). Fétis's theory was also critical to the historiography of music in the 19th century, with its quasi-Hegelian trajectory of tonal consciousness over time pointing tantalizingly to its future development. 2. A number of scholars in the 19th C.

Instructor(s): Thomas Christensen Terms Offered: Winter 2013

Note(s): Many of the readings we will look at are in English, although a number of them will also be in French. So it is advisable that you have some ability in French if you plan to register for this class. A single seminar paper will be due at the end of the quarter.

MUSI 43216. Seminar: Theorizing Melody. 100 Units.**MUSI 43318. Music and Feminist Postcolonialism. 100 Units.**

This graduate seminar draws on Feminist Postcolonial Theory and Ethnomusicology to investigate the intersections of music and feminism in the postcolonial world. Moving thematically across topics such as respectability, sexuality, race, and visibility, participants in this course will engage with texts and sounds that emerge out of and in resistance to the legacy of colonization and colonialism and the particularly gendered struggles of post-colonial nationalism and patriarchy. Where feminism and postcolonialism are both aimed toward a theorization of the marginalized subject, this course considers music as a key site for both expressing postcolonial/feminist consciousness and for discursive regulation of women's bodies. Deploying a necessarily intersectional feminist lens, we will focus on a variety of postcolonial feminisms and music performance practices including (but not limited to) soca and Caribbean feminisms, Punk Rock and Chicana Feminism, and Karnatic music and South Asian Feminisms.

Instructor(s): Jessica Baker Terms Offered: Spring

MUSI 43418. Musical Afrofuturism. 100 Units.

This course explores the place of speculative culture across a range of African American musical genres and, reciprocally, the significance of music in Afrofuturist film, literature, and graphic art. We will read Afrofuturist theory, alongside more canonical Black aesthetic philosophy, and consider its implications for music. There will be a focus on work from the 1970s to the present, much of which was created in explicit dialogue with science fiction, fantasy, and other genres of speculative literature and film, but we will attend to the ways Afrofuturism's ideals may have developed in part as a response to a longer history of African American music in particular. At key points we will look at the ways Afrofuturism-and Black speculative art at large-encourages a transnational and intersectional perspective.

MUSI 43610. Seminar: Improvisation. 100 Units.

The subject of improvisation is one that has attained renewed interest and urgency across a spectrum of musical disciplines in recent years: history, theory, ethnomusicology, and composition. It is not too much of an exaggeration to say that our understanding of the development and practice of just about every musical tradition has been touched by this Renaissance of scholarship. In this seminar, we will overview some of this scholarship as it impacts some 2,000 years of musical practices and theories. The idea will not be to offer a comprehensive history of improvisation, but rather to dip into selected moments and repertoires in order to see what commonalities we might find. We will see how improvisatory practices were central to a range of canonical repertoires in Western music: from Medieval organum and discant singing to 18th c. instrumental diminutions and partimento pedagogies for the keyboard, Renaissance counterpoint singing, to 19th c. virtuosic piano fantasies and vocal embellishments. We will also consider more contemporary improvisatory practices in jazz and contemporary music, touching on some non-western traditions of improvisation (particularly from the Middle East and South Asia). We will consider varied theoretical problems of aesthetics, the musical canon, and cognitive/psychological aspects of extemporaneous performance. Each class will be divided into both a theoretical/historical part followed by a practicum. Class to include guest faculty performers.

Instructor(s): Thomas Christensen Terms Offered: Spring. Tuesdays 9:30am-12:20pm in JRL 264

Prerequisite(s): graduate students only

MUSI 43616. Topic Theory and Intertextuality. 100 Units.**MUSI 43617. Seminar: Introduction to Sound Studies. 100 Units.****MUSI 43618. Musi-Repetition-Psychoanalysis. 100 Units.**

This seminar will explore homologies and intersections between two theoretical-practical worlds-music and psychoanalysis-for which repetition holds a defining place. Or, to risk being repetitive: this seminar will explore the theoretical-practical worlds of repetition through the homologies and intersections of music and psychoanalysis. Repetition is arguably music's definitional category, its triangulating line: where there is repeated sound, there is music; where there is musical sound, there is repetition; and yet music is also often defined as resistance to repetition-difference, profusion, surplus, eros. Repetition is also foundational to psychoanalysis, and similarly double-sided: a clinical imperative to free the analysand from the grips of unconscious repetition leads to an emancipation-of the drives' repetitive nature. This double-sided repetition can sometimes suggest uncannily musical metanarratives, theoretically fruitful if historically irresponsible. For instance: musical modernism, "working through" repetition on every level, "gives way" to postwar popular musical forms as an efflorescence of provocatively repetitive musics. Exploring and testing such thoughtmodels will be a basic labor of the course. The seminar will approach the wonderful, inexhaustible problem of repetition via a discursive criss-crossing between theory and philosophy (Hegel, Kierkegaard, Nietzsche, Deleuze, Sneed, Moten, et al.), music theory (Zuckerlandl, Pitt, Marguiles, Butler, et al.) and canonic and newer work in clinical and theoretical psychoanalysis (Freud, Klein, Lacan, Dolar, Zupančič, et al.). Musically speaking, students' knowledge and interests will drive the course (with a few exceptions: a deep dive into Neue Musik and EDM in contemporary Berlin, etc.).

MUSI 43700. Music and Affect. 100 Units.

TBD

Terms Offered: Autumn

MUSI 43718. Music and Agency. 100 Units.

Music, as a communicative medium that typically requires the cooperation of a range of actors distributed across space and time, poses particularly interesting problems for the study of agency. These problems include the way agency can be extended (through, for instance, a musical score, by means of which a composer shapes the actions of a performer), processes and situations through which agency is distributed (across, for instance, the members of a string quartet), and, most importantly for this seminar, the ways patterned nonlinguistic sound-that is, music-can be used to mediate or effect agency. The seminar will engage with recent work that sets out a broad-based approach to agency as well as investigations of agency specific to music. One of the aims of the seminar will be to better understand how the practice of music challenges and reframes notions of agency (focusing particularly on situations in which music provides the primary mode of interaction between individuals); another will be to explore, through the tools provided by musical analysis, the ways musical utterances shape the possibilities for agential interactions.

Instructor(s): Lawrence Zbikowski Terms Offered: Autumn

MUSI 43720. Music and Affect. 100 Units.

This seminar will review recent work in affect theory and its application to musical practice. It will also explore how theoretical perspectives on relationships between music and the emotions, beginning in the eighteenth century and extending through to the twenty-first, suggest reformulations both to affect theory and to the way it might be applied to music. Seminar discussions will be focused on readings from affect theory, the history of music theory, music psychology, and cognitive psychology, and detailed consideration of musical works from a range of musical traditions.

Instructor(s): Larry Zbikowski Terms Offered: Autumn

MUSI 44016. Modeling the Voice. 100 Units.

Equivalent Course(s): TAPS 44016

MUSI 44216. Modernisms and Repetition. 100 Units.**MUSI 44416. Recent Research on Film Music. 100 Units.****MUSI 44417. Seminar: Music in Sound Studies. 100 Units.**

This graduate research seminar will explore the relationship between film music and film sound. Our focus will be exploratory, based on an eclectic list of films, supplemented by relevant readings in film music studies and film sound studies. Participants will provide sample analyses of films, short reports on weekly readings, and write a research paper to be presented at a mini-conference in Week 11.

Equivalent Course(s): CMST 48117

MUSI 44616. Music and Images, 1450 - 1650. 100 Units.

Equivalent Course(s): ARTH 44616

MUSI 44618. Techné, Body, Memory. 100 Units.

Body, techné, memory is the first quarter of a two-quarter seminar taught by Martha Feldman and Jennifer Iverson, focusing on the interrelationships of music, technologies, and bodies. Feldman's seminar MUSI 44618, Winter 2018 begins by introducing general theoretical vocabulary and concepts that delineate or suggest relationships among the key concepts of techné, body, and memory, considering how these different domains are interlaced in theory and practice. Readings and case studies in winter quarter will focus on three primary areas, early modernity, voice, and race, thinking about how each has engaged music and sound. Feldman and Iverson's courses should be viewed as complementary, and students are encouraged to take both parts and to discuss options for a combined project with Feldman and Iverson. It is also fine to take either seminar as a stand-alone course. We welcome students coming from music or related disciplines such as art history or practice, cinema and media studies, sociology, cultural history, sound studies, languages and literatures, theater and performance studies, etc. These seminars will engage deeply with musical sound and technology (to the extent we are able), but it is not necessary to read musical notation.

Instructor(s): Martha Feldman Terms Offered: Spring

Equivalent Course(s): RLLT 44618

MUSI 44713. Music and Death in 17th Century Europe. 100 Units.

Course description unavailable.

Instructor(s): Travis Jackson Terms Offered: Autumn 2013

MUSI 44718. Technologies for Music Making. 100 Units.

Iverson's seminar, Technologies for Music Making, MUSI 44718, Spring 2018 begins with a series of theoretical readings from scholars associated with science and technology studies (STS) and actor-network theory (ANT), which will help us explore issues of agency, laboratory structure, and technological determinism throughout the quarter. Case studies in the second unit of spring quarter will focus on several electronic instruments (including the Theremin, the MixturTrautonium, and the DX-7), and the third unit will return to questions of the voice and its technological mediations, including the Vocoder and auto-tune. Feldman and Iverson's courses should be viewed as complementary, and students are encouraged to take both parts and to discuss options for a combined project with Feldman and Iverson. It is also fine to take either seminar as a stand-alone course. We welcome students coming from music or related disciplines such as art history or practice, cinema and media studies, sociology, cultural history, sound studies, languages and literatures, theater and performance studies, etc. These seminars will engage deeply with musical sound and technology (to the extent we are able), but it is not necessary to read musical notation.

Instructor(s): Jennifer Iverson Terms Offered: Spring

MUSI 44817. Words and Fifteenth-Century Sacred Music. 100 Units.

Scholars have studied the development of sacred music in the fifteenth century from the viewpoints of institutions, musicians, art, architecture, repertories, rituals, archival documents, styles, sources, culture, and other perspectives. This evolution can also be captured in another way: in the basic idea that the ancient medieval bond between music and number loosens during this period, and that a new alliance between music and words emerges. Words tell the history of musical institutions, words form the books that musicians read, words make up the texts of musical repertories, words delineate rituals, words comprise archival documents, words inspire musical styles, words fill musical sources, words shape culture. Musical examples by Dunstaple, Du Fay, Obrecht, and Josquin signal the multi-faceted interactions of music and words, along with a richer understanding of the well-known concept of music-as-rhetoric in the late middle ages.

Instructor(s): A. Robertson Terms Offered: Autumn

MUSI 44819. Reading Medieval and Renaissance Polyphony Through Chant and Liturgy. 100 Units.

The seminar begins with an overview of the structure of the Western liturgy and the principal forms and genres of plainchant, supported by study of medieval and Renaissance liturgical books in facsimile (print and digital) and on microfilm. The latter part of the seminar explores recent musicological studies that use chant and liturgy to shed light on polyphonic music from the thirteenth through sixteenth centuries.

Instructor(s): David Rothenberg Terms Offered: Spring

MUSI 45019. Opera Film: China / Europe: Thinking Media Hybridity across Cases. 100 Units.

This seminar will explore the mutual attraction of cinema and opera across the two vast operatic cultures of Europe and China in order to interrogate the many cross-cultural issues that their media encounters produce and accentuate. Such issues include changing relations to myth, ritual, history, and politics; cross-dressing and gender-bending; closed forms or open; stock characters wand plots or narrative fluidity. We will ask why in both China and Europe, opera repeatedly became the conflicted site of nationalist and modernizing aspirations, reiterations of tradition, and attempts at avant-gardism. When the presumed realism of film meets the extravagant hyperperformativity of opera, the encounter produces some extraordinary third kinds-media hybrids. Film repeatedly wrestled with the inherent histrionics of opera through the use of such devices as close-ups, camera angles, shot reverse shot, displacement of sound from sight, acousmatic sound, and trick photography. Such devices were generally meant to suture the supposed improbabilities of the operatic art form, incongruities often based on extravagant and transcendent relationships to realism. Such cinematic renderings of opera are highly revealing of fundamental faultlines in the genres themselves and revealing of the cultures that produced them.

Instructor(s): J. Zeitlin and M. Feldman Terms Offered: Winter

Equivalent Course(s): EALC 41401, CDIN 41401, CMST 44601, TAPS 41401, ITAL 41419

MUSI 45020. Errant Voices: Performances Beyond Measure. 100 Units.

Listening to trans*, raced, and castrato voices, "Errant Voices: Gender and Performances beyond Measure" will explore voices that escape their confines perforce or by choice, trying to make sense of resistant, insurgent, and resilient voices. Students from various disciplines are invited to join the seminar, thereby helping to advance its themes but working from their own strengths and orientations. Our common goal will be to develop shared theoretical language among differing cases that can lead to new insights into wider paradigmatic shifts across gender and race in our historical moment. The project turns on performances inasmuch as they reveal the workings of bodies, intentions, and interactions. It depends on collective thinking because it is intersectional and thus concerns emergent shared languages developed by encountering questions collaboratively.

Instructor(s): Martha Feldman Terms Offered: Spring

Equivalent Course(s): GNSE 45020, TAPS 45020

MUSI 45513. Boulez. 100 Units.

Instructor(s): Martin Zenck Terms Offered: Spring 2013

MUSI 45519. Topics in Transformational Theory. 100 Units.

This course is both an introduction to transformational theory and a survey of several active areas of research in the field, including neo-Riemannian theory and my own approaches to the transformational analysis of tonal music. We will explore both the conceptual and formal aspects of transformational theory, with special attention to the ways in which the former find expression in the latter.

Instructor(s): Steve Rings Terms Offered: Autumn. Monday 9:30am - 12:20pm JRL 264

MUSI 45918. Wagner's "Ring of the Nibelung" in Performance: Siegfried. 100 Units.

This course seeks to explore Richard Wagner's sprawling 19th century tetralogy *The Ring of the Nibelung* via the history of its interpretation on stage. While the first section of the course will offer an introduction to the Ring in its entirety, the rest of the quarter will be taken up with an in-depth consideration of Siegfried, the 3rd piece in the tetralogy. Our work in the seminar room (which will encompass a range of historical and critical readings and screenings) will be supplemented by attendance at rehearsals for Lyric Opera's production of Siegfried, slated to premiere on November 3rd. As it stands, we will cover a substantial amount of territory from a host of genres, eras, fields, and orientations, seeking to understand the contested and often contradictory place in music history and cultural theory that is occupied by Wagner and *The Ring*. Since the course is team-taught by a professor of music and of Germanic studies as well as theater & performance studies, our discussions will seek to encompass a range of fields, approaches, and topics. Among the topics we plan to examine are the aspiration to aesthetic totalization, the politics of community, the notion of distress or emergency (the German term is: *Not*), and some astonishingly lurid fantasies of family life--mostly of family dissolution. Texts will include the works of Friedrich Nietzsche, Theodor Adorno, Carolyn Abbate, Alain Badiou, Nicholas Ridout, and Slavoj Žižek.

Instructor(s): David Levin, Steven Rings Terms Offered: Autumn. Autumn 2018: Wednesdays 1:30-4:20pm in JRL 264

Prerequisite(s): Consent required: Please email Prof. Levin (dlevin@uchicago.edu) or Prof. Rings your background / experience / interest in one more of the following: music history/theory, critical theory, theater and performance studies, Germanic studies, opera studies, cinema and media studies.

Equivalent Course(s): TAPS 45918, GRMN 45918, CDIN 45918

MUSI 70000. Advanced Study: Music. 300.00 Units.

Advanced Study: Music



DEPARTMENT OF NEAR EASTERN LANGUAGES AND CIVILIZATIONS

<http://nelc.uchicago.edu/>

Chair

- Franklin D. Lewis

Professors

- Orit Bashkin
- Fred M. Donner
- Cornell Fleischer
- Janet H. Johnson, Oriental Institute
- Hakan Karateke
- Dennis G. Pardee
- Robert K. Ritner, Oriental Institute
- Tahera Qutbuddin
- Martha T. Roth, Oriental Institute
- David Schloen, Oriental Institute
- Gil Stein, Oriental Institute
- Theo P. van den Hout, Oriental Institute
- Christopher Woods, Oriental Institute
- John E. Woods, History

Associate Professors

- Ahmed El Shamsy
- Petra Goedegebuure, Oriental Institute
- Rebecca Hasselbach, Oriental Institute
- Ghenwa Hayek
- Nadine Moeller, Oriental Institute
- Brian Muhs, Oriental Institute
- Susanne Paulus, Oriental Institute
- Richard Payne, Oriental Institute
- Hervé Reculeau, Oriental Institute
- Na'ama Rokem
- A. Holly Shissler
- Sofía Torallas Tovar, Classics

Assistant Professors

- James Osborne, Oriental Institute
- Johh Z. Wee, Oriental Institute

Senior Lecturers

- Ariela Almog
- Saeed Ghahremani

Lecturers

- Osama Abu-Eledam
- Helga Anetshofer-Karateke
- Kagan Arik
- Lakhdar Choudar
- Stuart Creason
- Noha Forster
- Saeed Ghahremani

- Hripsime Haroutunian
- Kay Heikkinen

Research Associates (Associate Professors)

- W. Raymond Johnson, Oriental Institute
- Donald S. Whitcomb, Oriental Institute

Emeritus Faculty

- Lanny D. Bell, Oriental Institute
- Robert D. Biggs, Oriental Institute
- John A. Brinkman, Oriental Institute
- Robert Dankoff
- Peter F. Dorman, Oriental Institute
- Walter T. Farber, Oriental Institute
- McGuire Gibson, Oriental Institute
- Gene B. Gragg, Oriental Institute
- Norman Golb
- Harry A. Hoffner, Oriental Institute
- Wadad Kadi
- John R. Perry
- Jaroslav Stetkevych
- Matthew W. Stolper, Oriental Institute
- William Sumner, Oriental Institute
- Edward F. Wente, Oriental Institute
- K. Aslihan Yener, Oriental Institute

THE DEPARTMENT

The work of the department encompasses the ancient civilizations of the Near East, Near Eastern Judaica, and the Islamic civilizations of the Middle East, including Egypt and North Africa, and the history, languages, and literatures of the modern Middle East.

The fields of study in which M.A. and Ph.D. programs are currently offered are, in the Ancient Section: Ancient Near Eastern History, Comparative Semitics, Cuneiform Studies (Assyriology, Hittitology, Sumerology), Egyptology, Hebrew Bible and the Ancient Near East, Near Eastern Art and Archaeology (Anatolian, Egyptian, Iranian, Islamic, Mesopotamian, Syro-Palestinian), Near Eastern Judaica, and Northwest Semitic Philology; and in the Medieval and Modern Section: Arabic Language and Literature, Islamic History and Civilization, Islamic Thought, Medieval Judaica and Judeo-Arabic, Modern Hebrew Language and Literature, Persian Language and Literature, and Ottoman and Turkish Studies. The department also has a joint program with Linguistics and offers courses in Armenian and Central Asian studies in collaboration with other departments at the University.

The department has two main objectives. First, it strives to provide the specific course work and training needed for its students to develop into outstanding scholars in their chosen fields. Second, it offers more general courses that provide its students a broader background in areas outside their specific fields while presenting students in other departments the opportunity to incorporate relevant Middle Eastern material into their own studies. The department also publishes the *Journal of Near Eastern Studies*, one of the leading academic journals in ancient Near Eastern and Islamic studies.

THE ORIENTAL INSTITUTE

The department is associated with the Oriental Institute (<https://oi.uchicago.edu>), a research institute dedicated to the study of the origin and development of civilization in the ancient Near East. The Institute maintains several expeditions in the field, and research projects are carried on in its headquarters at the University. Its research archives, manuscript collection, documents from Oriental Institute excavations, and similar materials are resources for the students in the department. The department's office is housed in the Oriental Institute building, and many of its members belong to the faculty of the Oriental Institute.

THE CENTER FOR MIDDLE EASTERN STUDIES

The department is also associated with the Center for Middle Eastern Studies (<https://cmes.uchicago.edu>), which offers a master's degree in Middle Eastern studies and coordinates activities at the University dealing with the Middle East in the Islamic and modern periods. Many members of the department faculty are also members of the Center's executive committee; and the workshops, lectures, language circles, and similar activities of the Center are, like those of the Oriental Institute, a resource for the students in the department.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students with an undergraduate degree may apply directly to the department's Ph.D. program; a master's degree in a related field is not prerequisite. The department does not admit students for a terminal M.A. degree, although work done in the first two years of the Ph.D. program qualifies students to receive an M.A. degree. This interim M.A. normally requires the completion of 18 courses, of which 15 must be taken for a quality grade while three may be taken on a pass/fail basis. All students must high pass one of the two required modern research language reading exams (typically French and German) before the beginning of their second year and complete an M.A. thesis in the second year.

At the end of the second year, all students are reviewed and a determination made as to whether they will be allowed to continue in the Ph.D. program. Students who do continue build upon the work used for the M.A. degree; normally the completion of additional 9-18 courses is required, depending on the field, before embarking upon research for the doctoral dissertation. Exact requirements vary by field, but all students must high pass their second modern research language reading exam before the beginning of their third year and pass a battery of comprehensive exams, usually at the end of their fourth year. A dissertation proposal of original research to be undertaken is presented to the faculty at a public hearing, usually in the fifth year; acceptance allows the student to be admitted to candidacy and to continue the research that will lead to the completed dissertation. A formal dissertation defense is required before the Ph.D. degree is awarded. For more information, please consult the NELC Rules & Requirements, which are posted to the departmental wiki. (<https://wiki.uchicago.edu/x/-4OzCg>)

Because the department believes that firsthand knowledge and experience of the Middle East are an essential part of a student's training, advanced students are encouraged to apply for grants to support study in a Middle Eastern country, whether for language acquisition, archaeological field work, or dissertation research.

INQUIRIES

Specific information about the department and its programs may be obtained from our website (<http://nelc.uchicago.edu/>) or by e-mail (ne-lc@uchicago.edu). Within the framework outlined above, individual requirements are established for each student in consultation with the faculty adviser and the section counselor.

APPLICATION

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department-specific information is available online at <http://humanities.uchicago.edu/students/admissions>.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

We encourage you to check our website at <http://nelc.uchicago.edu/> particularly with regard to determining your field of study for your application. The application form has a place to indicate the department/program; from the pull down menu choose Near Eastern Languages and Civilizations. For field of specialization, please be sure to enter one of the fields of study exactly as listed on NELC's web page. We need these fields to sort information in our database. You may wish to specify your area of interest further in your statement of purpose.

COURSES

Modern Languages: Language acquisition is taught at the elementary and intermediate levels in modern Arabic, Armenian, Hebrew, Kazakh, Persian, Turkish, and Uzbek with advanced level courses in Arabic, Hebrew, and Turkish. A wide variety of literature courses are taught in the various languages.

Ancient Languages: Courses are offered in the fundamentals of Akkadian, Ancient Anatolian Languages, Egyptian, Ge'ez, Classical Hebrew, Sumerian, and Ugaritic, while more advanced courses cover specific genres of ancient texts dealing with religion, medicine, law, government, history, etc.

Near Eastern Art and Archaeology: Courses in Anatolian, Egyptian, Islamic, Mesopotamian, and Syro-Palestinian art and archaeology offer grounding in site archaeology and the material culture of the ancient Near East and include instruction on archaeological method and theory, landscape archaeology, computer applications, etc.

Near Eastern History and Civilization: A wide variety of courses cover the history, religion, law, literature (in translation), culture, and thought of the many ancient and modern civilizations of this region.

Please see the University's *Class Search* for the most up-to-date and specific course offerings in a given quarter.

AKKADIAN COURSES

AKKD 30330. Readings in the Semitic Texts from Ebla. 100 Units.

In this class, we will read texts from the ancient Syrian site of Ebla, where thousands of texts dating to about the 24th century BCE were found. We will focus on those texts that were written in the local Semitic language, Eblaite, and discuss the grammar and orthography of these texts, especially in the light of how this language/dialect relates to Akkadian and other Semitic languages.

Instructor(s): Rebecca Hasselbach-Andee Terms Offered: Spring

Prerequisite(s): Intermediate Akkadian

AKKD 30363. Kassite Legal and Administrative Texts. 100 Units.

We will read a choice of legal and administrative texts from the Kassite period (1400-1150 BC), including contracts, tables, receipts and letters. You will get an introduction to the Middle Babylonian dialect of Akkadian and learn how to approach those genres. We will also read unpublished material from photos, casts, and original tablets.

Instructor(s): Susanne Paulus Terms Offered: Winter

Prerequisite(s): 1 year of Akkadian

AKKD 40341. Cuneiform Epigraphy-1. 100 Units.

The course offers advanced students in Cuneiform Studies the opportunity to study actual documents from the Oriental Institute's Tablet Collection. Through direct examination of cuneiform tablets of different genres, periods and regions, students will be made aware of evolutions and variations in paleography (ductus and sign values), document formatting, formularies and dialects. They will be guided through the process of establishing a formal edition of cuneiform documents and inscribed seal impressions, including transliteration, translation, and hand-copy.

Instructor(s): Hervé Reculeau Terms Offered: Autumn

Prerequisite(s): 2 years of Akkadian

ANCIENT ANATOLIAN LANGUAGES COURSES

AANL 30150. Art and Iconography of the Hittite Kingdom. 100 Units.

This course offers an overview of the art/visual culture from the period of the Hittite Kingdom (1650-1200 BC). We will explore all materials (stone, metal, ceramics, etc.), problems of dating, iconography and its possible developments, questions of

Instructor(s): Theo van den Hout Terms Offered: Winter

Equivalent Course(s): AANL 20150

AANL 30701. Linguistic Methods for Extinct Languages. 100 Units.

This course explores the ways linguistic theory can be used in the study of extinct languages. We will investigate how to use typological data and the predictive force of modern theories to critically assess claims regarding grammatical issues in extinct languages. We will also start developing a method for fact-finding in extinct languages. The course will focus on three topics that are known to be relevant for several extinct languages of the Mediterranean and Middle Eastern area, covering many extinct languages ((near)-isolates, Sumerian, Elamite, Hurrian, Semitic (Akkadian, Ugaritic, Phoenician, Hebrew Aramaic), Indo-European (Hittite, Indo-Iranian, Greek, Latin, etc. etc.), Egyptian: 1. Ergativity (typology, morpho-syntax, semantics) 2. Topic and Focus (morpho-syntax, information structure) 3. Lexical and grammatical aspect (semantics, morphology, discourse grammar)

Instructor(s): P. Goedegebuure Terms Offered: Winter

Prerequisite(s): Course is consent only.

Equivalent Course(s): LING 31410

ARABIC COURSES

ARAB 30201-30202-30203. High Intermediate Modern Standard Arabic I-II-III.

This is a three course sequence in High Intermediate Modern Standard Arabic.

ARAB 30201. High Intermediate Modern Standard Arabic-1. 100 Units.

High Intermediate Arabic, the modern track, provides students with a full academic year to activate the language and grammar studied in the first two years, while expanding their cultural and literary knowledge of the Arab world. This three-quarter sequence is taught in Arabic and focuses on all four language skills. The purpose of this sequence is conceived of functionally (what can students do) rather than with an eye to finishing a given textbook. It will have reached its objective if each student leaves with a clearly improved ability to produce oral and written Arabic in a variety of contexts (personal and professional correspondence, description, prescription, comparison narration, argumentation, etc.), to listen and understand spoken MSA, and to read a variety of texts (short stories, a novel, media writing, poetry, social media, opinion pieces, etc.) and a deepened understanding of the diversity of the Arab experience. An important component of the course is taking the learning outside the classroom: through visits to an Arab neighborhood, interviews of Arabs in Chicago, producing a play.

Instructor(s): N. Forster Terms Offered: Autumn

Prerequisite(s): ARAB 20103 or equivalent

Note(s): Open to qualified undergraduates with consent of the instructor

ARAB 30202. High Intermediate Modern Standard Arabic-2. 100 Units.

Instructor(s): N. Forster Terms Offered: Winter

Prerequisite(s): ARAB 30201 or equivalent

ARAB 30203. High Intermediate Modern Standard Arabic-3. 100 Units.

In this class, we will read the iconic Arabic novel, *Season of Migration to the North*, by Sudanese writer, Tayeb Salih (1929-2009). Written in 1966, ten years after Sudan's official independence from Britain, the novel is one of a handful of truly masterful literary works in Arabic that address the postcolonial effects on the individual. More than a novel on Sudan, the story speaks to the universal traumas accompanying interactions between cultures when the power differential is huge. The class is for students who have high intermediate reading skills and want to solidify or improve them. In addition to a close reading of the novel, students will write essays and offer oral presentations on aspects of it. Listening skills will be tested against related materials (interviews with the author, documentary reports on the novel and its writer, etc.). Guest speakers and cultural outings are part of the class.

Instructor(s): N. Forster Terms Offered: Spring

Prerequisite(s): ARAB 30202 or equivalent

ARAB 30202. High Intermediate Modern Standard Arabic-2. 100 Units.

Instructor(s): N. Forster Terms Offered: Winter

Prerequisite(s): ARAB 30201 or equivalent

ARAB 30203. High Intermediate Modern Standard Arabic-3. 100 Units.

In this class, we will read the iconic Arabic novel, *Season of Migration to the North*, by Sudanese writer, Tayeb Salih (1929-2009). Written in 1966, ten years after Sudan's official independence from Britain, the novel is one of a handful of truly masterful literary works in Arabic that address the postcolonial effects on the individual. More than a novel on Sudan, the story speaks to the universal traumas accompanying interactions between cultures when the power differential is huge. The class is for students who have high intermediate reading skills and want to solidify or improve them. In addition to a close reading of the novel, students will write essays and offer oral presentations on aspects of it. Listening skills will be tested against related materials (interviews with the author, documentary reports on the novel and its writer, etc.). Guest speakers and cultural outings are part of the class.

Instructor(s): N. Forster Terms Offered: Spring

Prerequisite(s): ARAB 30202 or equivalent

ARAB 30301-30302-30303. High Intermediate Classical Arabic I-II-III.

This is a three-segment course offered in three quarters; Autumn, Winter and Spring. The main objective of the complete three segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues.

ARAB 30301. High Intermediate Classical Arabic-1. 100 Units.

This is a three-segment course offered in three quarters; Autumn, Winter and Spring. The main objective of the complete three segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues.

Prerequisite(s): ARAB 20103 or equivalent

Instructor(s): K. Heikkinen Terms Offered: Autumn

Prerequisite(s): ARAB 20103 or equivalent

ARAB 30302. High Intermediate Classical Arabic-2. 100 Units.

The main objective of the complete three-quarter segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues."

Instructor(s): K. Heikkinen Terms Offered: Winter

Prerequisite(s): ARAB 30201 or equivalent

ARAB 30303. High Intermediate Classical Arabic-III. 100 Units.

The main objective of the complete three-quarter segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues.

Instructor(s): K. Heikkinen Terms Offered: Spring

Prerequisite(s): ARAB 30302 or equivalent

ARAB 30302. High Intermediate Classical Arabic-2. 100 Units.

The main objective of the complete three-quarter segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues."

Instructor(s): K. Heikkinen Terms Offered: Winter

Prerequisite(s): ARAB 30201 or equivalent

ARAB 30303. High Intermediate Classical Arabic-III. 100 Units.

The main objective of the complete three-quarter segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues.

Instructor(s): K. Heikkinen Terms Offered: Spring

Prerequisite(s): ARAB 30302 or equivalent

ARAB 30588. Media Arabic. 100 Units.

Media Arabic is a course designed for the advanced student of Modern Standard Arabic. The course objective is to improve students' listening comprehension and writing skills. Students will advance toward this goal through listening to and reading a variety of authentic materials from Arabic Media (on politics, literature, economics, education, women, youth, etc.).

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): At least two years of Modern Standard Arabic

Equivalent Course(s): ARAB 20588

ARAB 30800. Arabic for Heritage Learners. 100 Units.

This course is meant to prepare heritage speakers of Arabic to enter either Arabic 202 or Arabic 302 in the Winter Quarter. By "heritage" learners, we mean those students who know the alphabet, speak or have spoken Arabic at home, are familiar with a broad vocabulary but lack the grammatical underpinnings of Arabic, its case system, its structure, verb forms, etc. As such, the course will train students in listening, speaking, reading and writing in Modern Standard Arabic, but with an overt and systematic focus on grammar. Materials used will be authentic, up-to-date, and relevant to student interests. In addition, the class will host guests from Chicago's Arab community to visit and speak with the students.

Instructor(s): Noha Forster Terms Offered: Autumn

ARAB 40101-40102. Advanced Arabic Syntax I-II.

This two-quarter sequence is an introduction to the classical Arabic language. It is useful for students whose research includes the reading of classical Arabic texts in varied fields such as literature, history, political science, theology and philosophy. In the class 1) rules of Arabic grammar are studied intensively, topic by topic; 2) parsing (i'rab) is an important component, with a view to understanding the structure of the language; 3) brief texts from different fields of classical Arabic are read focusing on their grammatical structure, and 4) some theory about the development of the grammatical genre is introduced, as are the basic features of prosody ('arud) and rhetoric (balagha).

ARAB 40101. Advanced Arabic Syntax I. 100 Units.

This two-quarter sequence is an introduction to the classical Arabic language. It is useful for students whose research includes the reading of classical Arabic texts in varied fields such as literature, history, political science, theology and philosophy. In the class 1) rules of Arabic grammar are studied intensively, topic by topic; 2) parsing (i'rab) is an important component, with a view to understanding the structure of the language; 3) brief texts from different fields of classical Arabic are read focusing on their grammatical structure, and 4) some theory about the development of the grammatical genre is introduced, as are the basic features of prosody ('arud) and rhetoric (balagha).

Instructor(s): T. Qutbuddin Terms Offered: Autumn

Prerequisite(s): Three years (or equivalent) of Modern Standard Arabic. Open to grads and undergrads.

Equivalent Course(s): ISLM 40101

ARAB 40102. Advanced Arabic Syntax II. 100 Units.

This two-quarter sequence is an introduction to the classical Arabic language. It is useful for students whose research includes the reading of classical Arabic texts in varied fields such as literature, history, political science, theology and philosophy. In the class 1) rules of Arabic grammar are studied intensively, topic by topic; 2) parsing (i'rab) is an important component, with a view to understanding the structure of the language; 3) brief texts from different fields of classical Arabic are read focusing on their grammatical structure, and 4) some theory about the development of the grammatical genre is introduced, as are the basic features of prosody ('arud) and rhetoric (balagha).

Instructor(s): T. Qutbuddin Terms Offered: Spring

Prerequisite(s): ARAB 40101 or equivalent. This is the second part of a 2 quarter sequence; open to grads and undergrads

ARAB 40102. Advanced Arabic Syntax II. 100 Units.

This two-quarter sequence is an introduction to the classical Arabic language. It is useful for students whose research includes the reading of classical Arabic texts in varied fields such as literature, history, political science, theology and philosophy. In the class 1) rules of Arabic grammar are studied intensively, topic by topic; 2) parsing (i'rab) is an important component, with a view to understanding the structure of the language; 3) brief texts from different fields of classical Arabic are read focusing on their grammatical structure, and 4) some theory about the development of the grammatical genre is introduced, as are the basic features of prosody ('arud) and rhetoric (balagha).

Instructor(s): T. Qutbuddin Terms Offered: Spring

Prerequisite(s): ARAB 40101 or equivalent. This is the second part of a 2 quarter sequence; open to grads and undergrads

ARAB 40200. Advanced Readings in Arabic. 100 Units.

Advanced Readings in Arabic

Instructor(s): Kay Heikkinen, Lakhdar Choudar Terms Offered: Autumn Winter

ARAB 40388. Readings in Early Islamic Apocalyptic Literature. 100 Units.

The course explores the role of eschatological and apocalyptic ideas in the inception and early history of the Islamic community, through readings of relevant Arabic sources from the seventh through ninth centuries CE, and modern scholarship exploring these issues.

Instructor(s): Fred Donner Terms Offered: Spring

Prerequisite(s): High Intermediate Arabic or equivalent.

ARAB 40925. Readings in Islamic Law. 100 Units.

This course provides a survey of the primary literatures of Islamic law and their treatment in modern scholarship. Primary texts read and discussed in class cover the following genres: compendium (mukhtasar), commentary (sharh), legal disputation (jadal), legal theory (usul al-fiqh), legal maxims (qawa'id fiqhiyya), handbooks for judges (adab al-qadi), handbooks for muftis (adab al-mufti), and legal responsa (fatawa). We will read closely selected excerpts from each of these genres and discuss relevant secondary literature in order to contextualize the primary texts thematically and historically and to examine critically the research questions that have thus far animated the modern study of Islamic law. Undergraduate students by instructor permission only.

Instructor(s): Ahmed El Shamsy Terms Offered: Autumn

Prerequisite(s): 3 years of Arabic or the equivalent

Equivalent Course(s): NEHC 40925, ISLM 40925, CMES 40925

ARAMAIC COURSES

ARMENIAN COURSES

EGYPTIAN COURSES

EGPT 30006. Ancient Near Eastern Thought & Literature-3. 100 Units.

This course employs English translations of ancient Egyptian literary texts to explore the genres, conventions and techniques of ancient Egyptian literature. Discussions of texts examine how the ancient Egyptians conceptualized and constructed their equivalent of literature, as well as the fuzzy boundaries and subtle interplay between autobiography, history, myth and fiction.

Instructor(s): Brian Muhs Terms Offered: Winter

Equivalent Course(s): NEHC 30006, EGPT 20006, NEHC 20006

EGPT 30120. Introduction to Demotic. 100 Units.

This course provides a basic introduction to the grammar, vocabulary, and orthographic styles of the administrative and literary stage of the Egyptian language and script used in the Late Period (into the Roman Empire).

Instructor(s): Robert Ritner Terms Offered: Winter

Prerequisite(s): EGPT 10201 and/or EGPT 20210

Equivalent Course(s): ANCM 32100

EGPT 30121. Demotic Texts. 100 Units.

Building on the basic grammar, vocabulary, and orthographic styles learned in EGPT 30120, this course focuses on the reading and analysis of various Demotic texts.

Instructor(s): Robert Ritner Terms Offered: Spring

Prerequisite(s): EGPT 30120 or Consent of the Instructor

COURSES

GE'EZ COURSES

HEBREW COURSES

KAZAKH COURSES

KAZK 49900. Reading and Research. 100 Units.

Reading and Research

Instructor(s): STAFF Terms Offered: Autumn Spring Winter

Note(s): Select section from faculty list

KAZK 49901. Independent Study: Intermediate Kazakh. 100 Units.

Independent Study: Intermediate Kazakh

Instructor(s): Kagan Arik Terms Offered: Autumn Spring Winter

NEAR EASTERN ART AND ARCHEOLOGY COURSES

NEAA 30015. Pottery of Ancient Anatolia. 100 Units.

This course is an in-depth survey of the various ceramic traditions that have characterized Anatolia from the invention of pottery in the Neolithic period to the Islamic period (time permitting). We will use collections in the Oriental Institute Museum to gain hands-on familiarity with these corpora, although the ceramic repertoire of Anatolia is so vast and diverse that the class will also involve lectures and student presentations on ceramics only available in scholarly literature. This class is structured less as a teacher-directed instructional, and more as a collaborative project in which we become masters of the Anatolian ceramic repertoire together.

Instructor(s): James Osborne Terms Offered: Spring

NEAA 30061. Ancient Landscapes I. 100 Units.

This is a two-course sequence that introduces students to theory and method in landscape studies and the use of Geographical Information Systems (GIS) to analyze archaeological, anthropological, historical, and environmental data. Course one covers the theoretical and methodological background necessary to understand spatial approaches to landscape and the fundamentals of using ESRI's ArcGIS software, and further guides students in developing a research proposal. Course two covers more advanced GIS-based analysis (using vector, raster, and satellite remote sensing data) and guides students in carrying out their own spatial research project. In both courses, techniques are introduced through the discussion of case studies (focused on the archaeology of the Middle East) and through demonstration of software skills. During supervised laboratory times, the various techniques and analyses covered will be applied to sample archaeological data and also to data from a region/topic chosen by the student.

Instructor(s): Staff Terms Offered: Autumn

Equivalent Course(s): ANTH 36710, GEOG 25400, ANTH 26710, NEAA 20061, GEOG 35400

NEAA 30062. Ancient Landscapes II. 100 Units.

This is a two-course sequence that introduces students to theory and method in landscape studies and the use of Geographical Information Systems (GIS) to analyze archaeological, anthropological, historical, and environmental data. Course one covers the theoretical and methodological background necessary to understand spatial approaches to landscape and the fundamentals of using ESRI's ArcGIS software, and further guides students in developing a research proposal. Course two covers more advanced GIS-based analysis (using vector, raster, and satellite remote sensing data) and guides students in carrying out their own spatial research project. In both courses, techniques are introduced through the discussion of case studies (focused on the archaeology of the Middle East) and through demonstration of software skills. During supervised laboratory times, the various techniques and analyses covered will be applied to sample archaeological data and also to data from a region/topic chosen by the student.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): NEAA 20061

Equivalent Course(s): ANTH 36711, GEOG 35800, ANTH 26711, NEAA 20062, GEOG 25800

NEAA 30070. Intro to the Archaeology of Afghanistan. 100 Units.

Intro to the Archaeology of Afghanistan

Instructor(s): Gil J. Stein Terms Offered: Winter

Prerequisite(s): Any introductory course in archaeology is desirable but not required

Equivalent Course(s): ANTH 36755, NEAA 20070, ANTH 26755

NEAA 30091. Field Archaeology. 300 Units.

This course takes place outside of Chicago and can only be taken by arrangement with the instructor well in advance of the quarter in which it is offered.

Instructor(s): N. Moeller Terms Offered: Autumn

Note(s): This course is for students that will be overseas participating in an Archaeological Field Project. Consent of instructor required.

NEAA 30100. Archaeological Methods and Interpretations. 100 Units.

This course surveys (1) the wide range of methods used by archaeologists to recover and analyze evidence concerning the human past; and (2) the various theoretical paradigms archaeologists have employed to interpret their finds and reconstruct ancient societies and cultures.

Instructor(s): David Schloen Terms Offered: Autumn

Equivalent Course(s): NEAA 20100

NEAA 30162. Topics: Mesopotamian History II: Uruk Mesopotamia and Neighbor. 100 Units.

The Uruk period (4th millennium BC) saw the emergence of the earliest known state societies, urbanism, kingship, writing, and colonial network extending from Mesopotamia across the Jazira and into neighboring resource zones in the Taurus and Zagros mountains. This seminar examines Uruk Mesopotamia and neighboring regions from several perspectives â€” an examination of key sites in Mesopotamia and contemporaneous local late chalcolithic polities in Syria, southeast Anatolia and Iran. The seminar also considers the main theoretical issues involved in understanding inter-regional interaction in the social, economic, and political organization of this period.

Instructor(s): G. Stein Terms Offered: Spring

Prerequisite(s): Any introductory course in Near Eastern archaeology.

Equivalent Course(s): NEAA 20162

NEAA 30332. Trade and Exchange in the Ancient Near East. 100 Units.

In this course, we will discuss premodern modes of economic exchange and their systemic societal effects in light of their institutional embedding, with emphasis on trade and markets in the ancient Mediterranean and Middle East.

Instructor(s): David Schloen Terms Offered: Winter

Equivalent Course(s): NEAA 20332

NEAA 30522. Archaeology of Islamic Syria-Palestine. 100 Units.

This course is an exploration of the cultural patterns in the Levant from the late Byzantine period down to modern times, a span of some 1500 years. While the subject matter is archaeological sites of this period in Syria, Lebanon, Jordan, and Israel, the focus is on the role of medieval archaeology in amplifying the history of economic and social systems. It is this connective quality of Islamic archaeology that contributes to an understanding of the earlier history and archaeology of this region.

Instructor(s): D. Whitcomb Terms Offered: Spring

Prerequisite(s): Introductory course in archaeology

Equivalent Course(s): NEAA 20522

NEAA 30532. Problems in Islamic Archaeology: The Islamic City. 100 Units.

This course is intended to present the dominant typologies of Islamic ceramics, most of which have been studied from an art historical approach. Specific archaeological typologies will be assembled from published reports and presented in seminar meetings. Half of the course will consist of analysis of sherd collections, observatory analysis of typological criteria, and training in drawing these artifacts.

Instructor(s): Donald Whitcomb Terms Offered: Winter

Equivalent Course(s): MDVL 20532, NEAA 20532

NEAA 40020. Ceramic Analysis in Archaeology. 100 Units.

This course introduces the theoretical foundations and analytical techniques that allow archaeologists to use ceramics to make inferences about ancient societies. Ethnographic, experimental, and physical science approaches are explored to develop a realistic, integrated understanding of the nature of ceramics as a form of material culture. Practical training in the use of the ceramic labs is included.

Instructor(s): James Osborne Terms Offered: Winter

Prerequisite(s): Any course in ancient history or archaeology

Equivalent Course(s): ANTH 26200, ANTH 36200, NEAA 10020

NEAR EASTERN HISTORY AND CIVILIZATIONS COURSES**NEHC 30001. Ancient Near Eastern History and Society I: Egypt. 100 Units.**

This course surveys the political, social, and economic history of ancient Egypt from pre-dynastic times (ca. 3400 B.C.) until the advent of Islam in the seventh century of our era.

Instructor(s): Brian Muhs, Robert Ritner Terms Offered: Autumn

Equivalent Course(s): NEHC 20001

NEHC 30002. Ancient Near Eastern History and Society II. 100 Units.

This course offers an overview of the history of Mesopotamia from its origins down to the Achaemenid and Hellenistic periods, when Mesopotamia became part of larger empires. Weeks 1 to 5, preceding mid-term exam, cover the periods ranging from the late Chalcolithic down to the end of the Middle Bronze age (late fifth to mid-second millennia BCE). Weeks 6 to 10 study the developments of the Late Bronze and Iron Ages, from the period of the archives of El-Amarna in the fourteenth century BCE down to the time of Alexander the Great in the late fourth century BCE.

Instructor(s): Hervé Reculeau Terms Offered: Winter

Prerequisite(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): NEHC 20002

NEHC 30003. Ancient Near Eastern History and Society III. 100 Units.

This course introduces students to the history of ancient Anatolia and its neighbors from the first historical texts around 2000 BCE, with a short detour through prehistory and the appearance of Proto-Indo-European culture, to the arrival of Alexander the Great. Some of the famous ancient Near Eastern civilizations that we encounter include the Assyrians, Hittites, Phrygians, Lydians, Persians, and Israelites. We will focus on the information provided by inscriptions - especially political and socioeconomic history - as well as the relevant archaeological and art historical records. No prior knowledge of Anatolian or Near Eastern history is required.

Instructor(s): Petra Goedegebuure Terms Offered: Spring

Equivalent Course(s): NEHC 20003

NEHC 30004. Ancient Near Eastern Thought and Literature I: Mesopotamian Literature. 100 Units.

This course gives an overview of the richness of Mesopotamian Literature (modern Iraq) written in the 3rd-1st millennium BC. We will read myths and epics written on clay tablets in the Sumerian and Akkadian language in English translation and discuss content and style, but also the religious, cultural and historic implications.

Particular focus will be on the development of stories over time, the historical context of the literature and mythological figures. The texts treated cover not only the famous Epic of Gilgamesh, but also various legends of Sumerian and Akkadian kings, stories about Creation and World Order, and destruction. The topics covered range from the quest for immortality, epic heroes and monsters, sexuality and love.

Instructor(s): Susanne Paulus Terms Offered: Autumn

Note(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): NEHC 20004

NEHC 30005. Ancient Near Eastern Thought & Literature-2: Anatolian Lit. 100 Units.

This course will provide an overview of Anatolian/Hittite literature, as "defined" by the Hittites themselves, in the wider historical-cultural context of the Ancient Near East. In the course of discussions, we will try to answer some important questions about Hittite inscriptions, such as: why were they written down, why were they kept, for whom were they intended, and what do the answers to these questions (apart from the primary content of the texts themselves) tell us about Hittite society?

Instructor(s): Theo van den Hout Terms Offered: Spring

Note(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): NEHC 20005

NEHC 30006. Ancient Near Eastern Thought & Literature-3. 100 Units.

This course employs English translations of ancient Egyptian literary texts to explore the genres, conventions and techniques of ancient Egyptian literature. Discussions of texts examine how the ancient Egyptians conceptualized and constructed their equivalent of literature, as well as the fuzzy boundaries and subtle interplay between autobiography, history, myth and fiction.

Instructor(s): Brian Muhs Terms Offered: Winter

Equivalent Course(s): EGPT 30006, EGPT 20006, NEHC 20006

NEHC 30027. Sources of the Pentateuch. 100 Units.

Seminar for hands-on experience in identifying, "separating," and interpreting sources within the Pentateuch (and Joshua) through varied examples.

Instructor(s): Simeon Chavel Terms Offered: Spring

Prerequisite(s): Biblical Hebrew and Greek

Equivalent Course(s): BIBL 55110

NEHC 30030. Introduction to the Qur'an. 100 Units.

This course introduces the historical context, thematic and literary features, major biblical figures, and exegetical literature on the Qur'an, with a focus on the early (8th-10th century CE) and medieval periods (11th - 15th century CE). We will read select English translations from the Qur'an and its commentators, accompanied by academic secondary literature that emphasize the Qur'an's literary structure, theological underpinnings, historical, geographical, social, political and cultural contexts in early and medieval Islamic civilization, and the role of the Qur'an as both a fixed and a living and dynamic text in Muslim devotional life.

Instructor(s): Yousef Casewit Terms Offered: Autumn

Prerequisite(s): Knowledge of Arabic is not a prerequisite, but general knowledge about Islam or an "Introduction to Islam" course is highly recommended.

Equivalent Course(s): MDVL 10030, ISLM 30030, RLST 11030

NEHC 30034. From the Harem to Helem: Gender and Sexuality in the Modern Middle East. 100 Units.

This course will provide a historical and theoretical survey of issues pertaining to gender and sexuality in the modern Middle East. First, we will outline the colonial legacies of gender politics and gendered discourses in modern Middle Eastern history. We will discuss orientalist constructions of the harem and the veil (Allouche, Laila Ahmed, Lila Abu-Loghod), and their contested afterlives across the Middle East. We will also explore colonial (homo)sexuality, and attendant critiques (Najmabadi, Massad). We will pay especial attention to local discourses about gender and sexuality, and trouble facile assumptions of "writing back" while attending to the various specificities of local discourses of everyday life across various sites of the Middle East. Eschewing reductive traps for more nuanced explorations of the specifics of life in Beirut, Cairo, Istanbul, or Tehran - as well as to rural areas - we will show how gender and sexuality are constructed and practiced in these locales. In addition to foundational scholarly texts in the field, we will also engage with an array of cultural texts (films, novels, poetry, comics) and - where possible - have conversations with activists who are working in these sites via Skype/teleconferencing.

Instructor(s): Ghenwa Hayek Terms Offered: Autumn

Equivalent Course(s): GNSE 20112, NEHC 20034, GNSE 30112

NEHC 30035. What is a Madrasa Education? 100 Units.

Although public education has almost completely eclipsed and replaced traditional educational systems throughout the Muslim world, madrasas continue to play a significant role in Muslim societies to this day. This course explores the complex, evolving, and often conflicting pedagogical models of learning in Islamic civilization from the medieval period up to the present. Three fundamental concerns guide our examination of the various modes of organization, acquisition, embodiment, and transference of knowledge in madrasa institutions: (1) Epistemology: What is knowledge (#ilm)? And what is an #ālim, or "traditional Muslim knower" expected know? (2) Pedagogy: How does an #ālim acquire, organize, transmit, and publish his/her #ilm? (3) Religious Authority: How is #ilm verified, authenticated, institutionalized, certificated, and mainstreamed in madrasa institutions? The sheer enormity of the subject and the variety of competing pedagogical models in the Muslim world belie a comprehensive survey. Our approach will thus be grounded in multidisciplinary research (history, ethnography, sociology, religious studies) and anchored in case studies. The readings covered in class will address questions of philosophy of education; the politics of knowledge; core texts studied in madrasas; day-to-day lived experience of students and teachers; how classical texts are taught.

Instructor(s): Yousef Casewit Terms Offered: Winter

Prerequisite(s): Basic knowledge of Arabic or another Islamic language is highly recommended, though not a formal prerequisite for this course.

Equivalent Course(s): ISLM 30035

NEHC 30092. Classical Arabic Linguistics. 100 Units.

This course delves into debates in Arabic linguistics of the classical period (before the fifteenth century) on questions such as, What is the origin of language? How does language work? How do languages relate to one another? Where does the Arabic language come from? Is the distinction between literal and figurative uses of language real? We read writings by seminal Arabic linguists, such as al-Tabari, Abu Hilal al-'Askari, Ibn Faris, al-Qadi 'Abd al-Jabbar, and Ibn Taymiyya, addressing not only linguistics proper but also topics in fields such as Quranic exegesis, theology, and legal theory. We also discuss key works of secondary scholarship on the subject. Undergraduate students by instructor permission only.

Instructor(s): Ahmed El Shamsy Terms Offered: Autumn

Prerequisite(s): 3 years of Arabic or the equivalent

Equivalent Course(s): NEHC 20092, ISLM 30092

NEHC 30121. The Bible and Archaeology. 100 Units.

In this course we will look at how interpretation of evidence unearthed by archaeologists contributes to a historical-critical reading of the Bible, and vice versa. We will focus on the cultural background of the biblical narratives, from the stories of Creation and Flood to the destruction of the Jerusalem temple by the Romans in the year 70. No prior coursework in archaeology or biblical studies is required, although it will be helpful for students to have taken JWSC 20120 (Introduction to the Hebrew Bible).

Instructor(s): David Schloen Terms Offered: Winter

Equivalent Course(s): NEHC 20121, RLST 20121, JWSC 20121

NEHC 30300. Intro. Qur'anic Arabic III. 100 Units.

This course is the third in a 3-quarter sequence "Introduction to Qur'anic Arabic" (IQA), which aims to provide students with foundational philological and reading skills by covering the essentials of Qur'anic/Classical Arabic grammar. This course also features readings of select passages from the Qur'an, *#adith* and Tafsir. The 3 quarters of IQA are sequential, and students are strongly encouraged to join in the first quarter. Exceptions can be made on a case by case basis.

Instructor(s): Adi Shiran Terms Offered: Spring

Prerequisite(s): Graduate and undergraduate students from any department are welcome to register. The minimum prerequisite for IQA III is the successful completion of IQA II or equivalent training. The IQA sequence is also open to students who may have had more exposure to Arabic (modern or classical) but wish to acquire a solid foundation in Arabic grammar, and/or students who feel they are not yet ready for third-year Arabic courses.

Equivalent Course(s): RLST 15300, ISLM 30300

NEHC 30433. Israeli Society from a Sociological Point of View. 100 Units.

This course integrates between sociological themes such as stratification, gender, culture, ethnicity, race, religion, political sociology and economy in order to study the Israeli society with all its diversity. Israeli society is a unique case for sociological study. A young nation which on the one side has a successful economy, but on the other side is dealing with an ongoing conflict with its Arab and Palestinian neighbors. Inequality rates in Israel are among the highest in the OECD, based on class, gender, ethnicity and nationality. Israel is exhibiting opposite trends between promoting gay rights and becoming more religious. In its 70th year Israel is facing deep social and political dilemmas which intertwine with major sociological themes. This course wishes to reveal these dilemmas and their deep complexities. The course will be divided to meetings which in each of them sociological themes and theories will be explored and problematized vis-à-vis Israeli society.

Instructor(s): STAFF Terms Offered: Spring

Equivalent Course(s): NEHC 20433

NEHC 30435. From Seclusion to Global Success: Creativity and Politics on Israeli Television. 100 Units.

Television is one of the major media phenomena of the 20th and 21st centuries. Television had a significant part in the building of the modern nation-state and is, nowadays, one of the main manifestations of global capitalism. The Israeli television market went from one public channel, dominated by the government, to become a leading exporter of television content to the Western World. During the semester we will review the political history of global and Israeli TV, we will learn to distinguish between different TV genres such as soap opera, sitcom, "reality" TV and quality drama series. We will explain how the growth of various creative products and different genres reflected both the political and economic zeitgeist. Likewise, we will focus on how the unique characteristics of the Israeli television market brought about its international success. We will focus on the narratives of Israeli successful drama series such as *Fauda* (a series about an under-cover IDF unit aired on Netflix), *In treatment* (a psychological drama which was aired on HBO) and *Homeland* (an Israeli action format aired on Show-time) and try to explain their global success. We will also focus on how the various political minorities in Israel are represented on television and the political and social impact of their representation. In addition, we will discuss concepts such as "quality" and "trash" TV as concepts reflecting social, political and economic struggles.

Terms Offered: Autumn

Prerequisite(s): Open to advanced undergraduates.

Equivalent Course(s): NEHC 20435, JWSC 20435

NEHC 30501. Islamic History and Society I: The Rise of Islam and the Caliphate. 100 Units.

This course covers the period from ca. 600 to 1100, including the rise and spread of Islam, the Islamic empire under the Umayyad and Abbasid caliphs, and the emergence of regional Islamic states from Afghanistan and eastern Iran to North Africa and Spain.

Instructor(s): Fred Donner Terms Offered: Autumn

Equivalent Course(s): CMES 30501, HIST 25704, HIST 35704, ISLM 30500, RLST 20501, MDVL 20501, NEHC 20501

NEHC 30502. Islamic History and Society II: The Middle Period. 100 Units.

This course covers the period from ca. 1100 to 1750, including the arrival of the Steppe Peoples (Turks and Mongols), the Mongol successor states, and the Mamluks of Egypt and Syria. We also study the foundation of the great Islamic regional empires of the Ottomans, Safavids, and Moghuls.

Instructor(s): J. Woods Terms Offered: Winter

Prerequisite(s): Not open to first-year students

Equivalent Course(s): CMES 30502, ISLM 30600, MDVL 20502, HIST 35804, HIST 25804, NEHC 20502

NEHC 30503. Islamic History and Society III: The Modern Middle East. 100 Units.

This course covers the period from ca. 1750 to the present, focusing on Western military, economic, and ideological encroachment; the impact of such ideas as nationalism and liberalism; efforts at reform in the Islamic states; the emergence of the "modern" Middle East after World War I; the struggle for liberation from Western colonial and imperial control; the Middle Eastern states in the cold war era; and local and regional conflicts.

Instructor(s): Holly Shissler Terms Offered: Spring

Prerequisite(s): Not open to first-year students

Note(s): This course does not apply to the medieval studies major or minor.

Equivalent Course(s): NEHC 20503, HIST 25904, HIST 35904

NEHC 30504. Introduction to the Hebrew Bible. 100 Units.

The Hebrew Bible (Old Testament) is a complex anthology of disparate texts and reflects a diversity of religious, political, and historical perspectives from ancient Israel, Judah, and Yehud. Because this collection of texts continues to play an important role in modern religions, new meanings are often imposed upon it. In this course, we will attempt to read biblical texts apart from modern preconceptions about them. We will also contextualize their ideas and goals through comparison with texts from ancient Mesopotamia, Syro-Palestine, and Egypt. Such comparisons will demonstrate that the Hebrew Bible is fully part of the cultural milieu of the Ancient Near East. To accomplish these goals, we will read a significant portion of the Hebrew Bible in English, along with representative selections from secondary literature. We will also spend some time thinking about the nature of biblical interpretation.

Instructor(s): J. Stackert Terms Offered: Autumn

Equivalent Course(s): RLST 11004, JWSC 20120, NEHC 20504, BIBL 31000

NEHC 30568. Balkan Folklore. 100 Units.

Vampires, fire-breathing dragons, vengeful mountain nymphs. 7/8 and other uneven dance beats, heart-rending laments, and a living epic tradition. This course is an overview of Balkan folklore from historical, political, and anthropological perspectives. We seek to understand folk tradition as a dynamic process and consider the function of different folklore genres in the imagining and maintenance of community and the socialization of the individual. We also experience this living tradition firsthand through visits of a Chicago-based folk dance ensemble, "Balkan Dance."

Instructor(s): A. Ilieva Terms Offered: Winter

Equivalent Course(s): REES 39009, CMLT 33301, CMLT 23301, REES 29009, NEHC 20568, ANTH 35908, ANTH 25908

NEHC 30570. Mughal India: Tradition & Transition. 100 Units.

The focus of this course is on the period of Mughal rule during the late sixteenth, seventeenth, and eighteenth centuries, especially on selected issues that have been at the center of historiographical debate in the past decades.

Instructor(s): M. Alam Terms Offered: Autumn

Prerequisite(s): Advanced standing or consent of instructor. Prior knowledge of appropriate history and secondary literature required.

Equivalent Course(s): NEHC 20570, SALC 27701, HIST 26602, HIST 36602, SALC 37701

NEHC 30573. The Burden of History: The Nation and Its Lost Paradise. 100 Units.

What makes it possible for the imagined communities called nations to command the emotional attachments that they do? This course considers some possible answers to Benedict Anderson's question on the basis of material from the Balkans. We will examine the transformation of the scenario of paradise, loss, and redemption into a template for a national identity narrative through which South East European nations retell their Ottoman past. With the help of Žižek's theory of the subject as constituted by trauma and Kant's notion of the sublime, we will contemplate the national fixation on the trauma of loss and the dynamic between victimhood and sublimity.

Instructor(s): A. Ilieva Terms Offered: Autumn

Equivalent Course(s): REES 39013, CMLT 33401, REES 29013, NEHC 20573, HIST 24005, CMLT 23401, HIST 34005

NEHC 30585. Journeys Real & Virtual. Travel in the Pre-modern Mediterranean. 100 Units.

This course focuses on the art of travel in the Medieval and early modern Mediterranean. From the late Middle Ages through the sixteenth century, European pilgrimage to the Holy Land constituted some of the most advanced experiments in representing travel, describing foreign cities, and mapping out territories. Travel accounts represent the core material around which this course is structured along with images and maps in other contexts that such experiments influenced. Course material will span the fields of religion, art, literary, and urban history, encompassing historical geography, cartography, and cultural history. Students will engage directly with the verbal and visual modes that characterize the documentary legacy of mental and physical travel in order to come to terms with the different regimes of knowledge they construct as well as the cognitive demands they place on their audience. Through a comparison of techniques, students will explore the ways in which texts, images, and maps sought to understand human interaction, visualize geographical context, locate history, and make sense of the world beyond their drama of their local experience.

Instructor(s): Niall Atkinson and Karin Krause Terms Offered: Spring

Prerequisite(s): Consent required: Please email Prof. Atkinson or Prof. Krause for request form.

Equivalent Course(s): CDIN 45085, RLVC 45805, HCHR 45805, ARTH 40585, RLLT 33020, HIST 60705

NEHC 30601-30602-30603. Islamic Thought and Literature I-II-III.

This sequence meets the general education requirement in civilization studies. Taking these courses in sequence is recommended but not required.

NEHC 30601. Islamic Thought and Literature I. 100 Units.

This sequence explores the thought and literature of the Islamic world from the coming of Islam in the seventh century C.E. through the development and spread of its civilization in the medieval period and into the modern world. Including historical framework to establish chronology and geography, the course focuses on key aspects of Islamic intellectual history: scripture, law, theology, philosophy, literature, mysticism, political thought, historical writing, and archaeology. In addition to lectures and secondary background readings, students read and discuss samples of key primary texts, with a view to exploring Islamic civilization in the direct voices of the people who participated in creating it. All readings are in English translation. No prior background in the subject is required. This course sequence meets the general education requirement in civilization studies.

Instructor(s): Tahera Qutbuddin Terms Offered: Autumn

Equivalent Course(s): HIST 35610, SOSC 22000, NEHC 20601, ISLM 30601, CMES 30601, HIST 25610, RLST 20401, MDVL 20601

NEHC 30602. Islamic Thought and Literature II. 100 Units.

This course covers the period from ca. 950 to 1700, surveying works of literature, theology, philosophy, sufism, politics, history, etc., written in Arabic, Persian and Turkish, as well as the art, architecture and music of the Islamicate traditions. Through primary texts, secondary sources and lectures, we will trace the cultural, social, religious, political and institutional evolution through the period of the Fatimids, the Crusades, the Mongol invasions, and the "gunpowder empires" (Ottomans, Safavids, Mughals).

Instructor(s): Franklin Lewis Terms Offered: Winter

Note(s): Taking these courses in sequence is recommended but not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): SOSC 22100, MDVL 20602, RLST 20402, NEHC 20602, CMES 30602, ISLM 30602, HIST 35615, HIST 25615

NEHC 30603. Islamic Thought and Literature III. 100 Units.

This class explores works of Muslim intellectuals, who interpreted various aspects of Islamic philosophy, political theory and law in the modern age. We will look at diverse interpretations concerning the role of religion in a modern society, at secularized and historicized approaches to religion and at the critique of both religious establishments and nation states as articulated by Middle Eastern intellectuals. Consequently, we will contextualize concepts like "woman," "nation," "East" and "jihad" as we follow the meanings assigned to these conceptions by different intellectuals at different historical moments. The class likewise examines the ways in which Muslim reformers synthesized cultural trends to revive the Islamic faith in face of Western economic and political hegemony. Our debate will focus on the influence of the colonial settings on the formation of these new readings and on the ways in which Muslim thinkers both appropriated and critiqued Western notions of civilization and guidance. We will consider the impact of these new ideas on political theory, and in particular on the political systems which emerged in the modern Middle East. Finally, the class will scrutinize the ways in which Muslim writers manipulated new means of communication such as the print media in order to propagate their ideas regarding the nature of their state and society. Generally, we shall discuss secondary literature first and the primary sources later.

Instructor(s): Orit Bashkin Terms Offered: Spring

Equivalent Course(s): SOSC 22200, HIST 35616, RLST 20403, ISLM 30603, NEHC 20603, HIST 25616

NEHC 30602. Islamic Thought and Literature II. 100 Units.

This course covers the period from ca. 950 to 1700, surveying works of literature, theology, philosophy, sufism, politics, history, etc., written in Arabic, Persian and Turkish, as well as the art, architecture and music of the Islamicate traditions. Through primary texts, secondary sources and lectures, we will trace the cultural, social, religious, political and institutional evolution through the period of the Fatimids, the Crusades, the Mongol invasions, and the "gunpowder empires" (Ottomans, Safavids, Mughals).

Instructor(s): Franklin Lewis Terms Offered: Winter

Note(s): Taking these courses in sequence is recommended but not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): SOSC 22100, MDVL 20602, RLST 20402, NEHC 20602, CMES 30602, ISLM 30602, HIST 35615, HIST 25615

NEHC 30603. Islamic Thought and Literature III. 100 Units.

This class explores works of Muslim intellectuals, who interpreted various aspects of Islamic philosophy, political theory and law in the modern age. We will look at diverse interpretations concerning the role of religion in a modern society, at secularized and historicized approaches to religion and at the critique of both religious establishments and nation states as articulated by Middle Eastern intellectuals. Consequently, we will contextualize concepts like "woman," "nation," "East" and "jihad" as we follow the meanings assigned to these conceptions by different intellectuals at different historical moments. The class likewise examines the ways in which Muslim reformers synthesized cultural trends to revive the Islamic faith in face of Western economic and political hegemony. Our debate will focus on the influence of the colonial settings on the formation of these new readings and on the ways in which Muslim thinkers both appropriated and critiqued Western notions of civilization and guidance. We will consider the impact of these new ideas on political theory, and in particular on the political systems which emerged in the modern Middle East. Finally, the class will scrutinize the ways in which Muslim writers manipulated new means of communication such as the print media in order to propagate their ideas regarding the nature of their state and society. Generally, we shall discuss secondary literature first and the primary sources later.

Instructor(s): Orit Bashkin Terms Offered: Spring

Equivalent Course(s): SOSC 22200, HIST 35616, RLST 20403, ISLM 30603, NEHC 20603, HIST 25616

NEHC 30605. Colloquium: Sources for the Study of Islamic History. 100 Units.

This course is designed to acquaint the student with the basic problems and concepts as well as the sources and methodology for the study of premodern Islamic history. Sources will be read in English translation and the tools acquired will be applied to specific research projects to be submitted as term papers.

Instructor(s): J. Woods Terms Offered: Autumn

Equivalent Course(s): NEHC 20605, HIST 36005, HIST 26005

NEHC 30613. Dreams in the Ancient World. 100 Units.

Dreams belong to the universals of human existence as human beings have always dreamt and will continue to dream across time and cultures. The questions where do dreams come from and how to unravel a dream have always preoccupied the human mind. In this course we will focus on dreams in the Greco-Roman and Greco-Egyptian cultural environments. We will cover dreams from three complementary perspectives: dreams as experience, dream interpretation and dream theory. The reading materials will include: (a) a selection of dream narratives from different sources, literary texts as well as documentary accounts of dreams; (b) texts which document the forms and contexts of dream interpretation in the Greco-Roman and Greco-Egyptian cultures and (c) texts which represent attempts to approach dreams from a more general perspective by among others explaining their genesis and defining dream-types.

Instructor(s): S. Torallas. A. Maravela Terms Offered: Autumn

Equivalent Course(s): ANCM 44519, RLST 24503, CLAS 34519, NEHC 20613, CLCV 24519

NEHC 30625. Approaches to the Study of the Ancient Near East. 100 Units.

This is a required introductory course for all CMES ancient-track students.

Instructor(s): Brian Muhs Terms Offered: Autumn

Equivalent Course(s): CMES 31002

NEHC 30630. Introduction to Islamic Philosophy. 100 Units.

This course offers an introduction to the terms and concepts current in Arabic philosophical writings in the classical period of Islamic thought (roughly 9th to 17th century). It begins with the movement to translate Greek texts into Arabic and the debate among Muslims about the validity of philosophy versus revelation. From a close reading of key works (in English) by important philosophers such as al-Kindī, al-Rāzī, al-Sijistānī, al-Fārābī, Ibn Sīnā (Avicenna), al-Ghazzālī, Ibn Bājjā, Ibn Tufayl, Ibn Rushd (Averroes), Suhrawardī, and Mullā ḥadrā, a series of lectures will follow the career of philosophy in the Islamic world, first as a 'foreign' science and then, later, as selectively rejected but also substantially accepted as a natural component of sophisticated discourse.

Instructor(s): Paul Walker Terms Offered: Spring

Equivalent Course(s): NEHC 20630, ISLM 30630

NEHC 30631. Approaches to the Study of the Middle East. 100 Units.

The course introduces beginning graduate students to the range of basic resources, methods, and analytical tools that must be mastered by those engaging in the study of the Islamic Middle East. As such, it covers the period from the seventh century to the present and is focused on developing professional skills necessary for successful completion of a master's or doctoral program.

Instructor(s): P. Walker Terms Offered: Autumn

Equivalent Course(s): CMES 30001

NEHC 30643. Topics: Med Islam Social Hist. 100 Units.

The course reviews the issues and scholarship on various facets of the social history of the Islamic Near East, ca. 700-1500 CE), including Patterns of Social Organization ("class," tribal or kinship ties, professional ties, ethnicity, etc.), the role of pastoral nomadism in Near Eastern societies, non-Muslim communities and their relations with Muslims, Women and Gender issues, Technology and Social Change, Historical Demography, and Urbanism.

Instructor(s): Fred Donner Terms Offered: Autumn

Prerequisite(s): Islamic History and Society 1 and 2, or Islamic Thought and Literature 1 and 2, or equivalent.

NEHC 30687. Coll: Persian Historical Texts. 100 Units.

This course will focus on the study and utilization of narrative, normative and archival sources in Persian. Texts of the major Iranian historians and biographers will be subjected to close readings and analysis. The scripts, protocols, and formula used by Irano-Islamic chancelleries will also be introduced and the form and content of published an unpublished archival documents will be transcribed and examined in their institutional context. Knowledge of Persian required.

Instructor(s): J. Woods

Prerequisite(s): Knowledge of Persian required

Equivalent Course(s): CMES 30687, HIST 59000

NEHC 30692. Armenian History through Art and Culture. 100 Units.

This 10-week crash-course surveys Armenian history and elements of culture (religion, mythology and music, manuscript illumination, art and architecture) as well as offer a mosaic of traditions and customs (festivals and feasts, birth and wedding rituals, funerary cult) of Armenia. It also discusses transformations of Armenian identity and symbols of 'Armenianness' through time (especially in Soviet and post-Soviet eras) based on such elements of national identity, as language, religion, art or shared history. Recommended for students with interest in Armenian Studies or related fields, in Area or Civilizations Studies, Art and Cultural Studies, etc.

Instructor(s): Hripsime Haroutunian Terms Offered: Autumn

Equivalent Course(s): HIST 25711, NEHC 20692

NEHC 30766. Shamans and Oral Poets of Central Asia. 100 Units.

This course explores the rituals, oral literature, and music associated with the nomadic cultures of Central Eurasia.

Instructor(s): K. Arik Terms Offered: Spring

Equivalent Course(s): ANTH 25906, NEHC 20766

NEHC 30837. Early Turkish Republic. 100 Units.

This course will examine the development of the Turkish state following WWI including questions of economy, institutions, and identity formation. The first quarter make be taken as a free-standing colloquium, or students may take both quarters and produce a research paper.

Instructor(s): Holly Shissler Terms Offered: Winter

Prerequisite(s): open to graduate students and to upper division undergraduates

Equivalent Course(s): HIST 35702, NEHC 20837, HIST 25702

NEHC 30840. Radical Islamic Pieties: 1200 to 1600. 100 Units.

Some knowledge of primary languages (i.e., Arabic, French, German, Greek, Latin, Persian, Spanish, Turkish) helpful. This course examines responses to the Mongol destruction of the Abbasid caliphate in 1258 and the background to formation of regional Muslim empires. Topics include the opening of confessional boundaries; Ibn Arabi, Ibn Taymiyya, and Ibn Khaldun; the development of alternative spiritualities, mysticism, and messianism in the fifteenth century; and transconfessionalism, antinomianism, and the articulation of sacral sovereignties in the sixteenth century. All work in English. This course is offered in alternate years.

Instructor(s): C. Fleischer Terms Offered: Winter

Prerequisite(s): Consent of instructor

Equivalent Course(s): HIST 35901, NEHC 20840, HIST 25901, MDVL 20840, RLST 20840

NEHC 30847. History of the Early Turkish Republic II. 100 Units.

This is the continuation of NEHC 20837/20837: History Early Turkish Republic I. Students will produce a seminar/research paper and meet to discuss selected readings on the transition from Ottoman Empire to Turkish Republic and the consolidation of the Republican regime.

Instructor(s): Holly Shissler Terms Offered: Spring

NEHC 30852-30853. Seminar: Ottoman World/Suleyman I-II.

This two-quarter seminar focuses on the transformation of the Muslim Ottoman principality into an imperial entity--after the conquest of Constantinople in 1453--that laid claim to inheritance of Alexandrine, Roman/ Byzantine, Mongol/Chinggisid, and Islamic models of Old World Empire at the dawn of the early modern era. Special attention is paid to the transformation of Ottoman imperialism in the reign of Sultan Süleyman the Lawgiver (1520-1566), who appeared to give the Empire its "classical" form. Topics include: the Mongol legacy; the reformulation of the relationship between political and religious institutions; mysticism and the creation of divine kingship; Muslim-Christian competition (with special reference to Spain and Italy) and the formation of early modernity; the articulation of bureaucratized hierarchy; and comparison of Muslim Ottoman, Iranian Safavid, and Christian European imperialisms. The first quarter comprises a chronological overview of major themes in Ottoman history, 1300-1600; the second quarter is divided between the examination of particular themes in comparative perspective (for example, the dissolution and recreation of religious institutions in Islamdom and Christendom) and student presentations of research for the seminar paper. In addition to seminar papers, students will be required to give an oral presentation on a designated primary or secondary source in the course of the seminar.

NEHC 30852. The Ottoman World in the Age of Suleyman the Magnificent. 100 Units.

This two-quarter seminar focuses on the transformation of the Muslim Ottoman principality into an imperial entity--after the conquest of Constantinople in 1453--that laid claim to inheritance of Alexandrine, Roman/ Byzantine, Mongol/Chinggisid, and Islamic models of Old World Empire at the dawn of the early modern era. Special attention is paid to the transformation of Ottoman imperialism in the reign of Sultan Süleyman the Lawgiver (1520-1566), who appeared to give the Empire its "classical" form. Topics include: the Mongol legacy; the reformulation of the relationship between political and religious institutions; mysticism and the creation of divine kingship; Muslim-Christian competition (with special reference to Spain and Italy) and the formation of early modernity; the articulation of bureaucratized hierarchy; and comparison of Muslim Ottoman, Iranian Safavid, and Christian European imperialisms. The first quarter comprises a chronological overview of major themes in Ottoman history, 1300-1600; the second quarter is divided between the examination of particular themes in comparative perspective (for example, the dissolution and recreation of religious institutions in Islamdom and Christendom) and student presentations of research for the seminar paper. In addition to seminar papers, students will be required to give an oral presentation on a designated primary or secondary source in the course of the seminar.

Instructor(s): Cornell Fleischer Terms Offered: Autumn

Equivalent Course(s): HIST 58302, CMES 30852

NEHC 30853. Ottoman World/Suleyman II. 100 Units.

This two-quarter seminar focuses on the transformation of the Muslim Ottoman principality into an imperial entity--after the conquest of Constantinople in 1453--that laid claim to inheritance of Alexandrine, Roman/ Byzantine, Mongol/Chinggisid, and Islamic models of Old World Empire at the dawn of the early modern era. Special attention is paid to the transformation of Ottoman imperialism in the reign of Sultan Süleyman the Lawgiver (1520-1566), who appeared to give the Empire its "classical" form. Topics include: the Mongol legacy; the reformulation of the relationship between political and religious institutions; mysticism and the creation of divine kingship; Muslim-Christian competition (with special reference to Spain and Italy) and the formation of early modernity; the articulation of bureaucratized hierarchy; and comparison of Muslim Ottoman, Iranian Safavid, and Christian European imperialisms. The first quarter comprises a chronological overview of major themes in Ottoman history, 1300-1600; the second quarter is divided between the examination of particular themes in comparative perspective (for example, the dissolution and recreation of religious institutions in Islamdom and Christendom) and student presentations of research for the seminar paper. In addition to seminar papers, students will be required to give an oral presentation on a designated primary or secondary source in the course of the seminar.

Instructor(s): Cornell Fleischer Terms Offered: Winter

Equivalent Course(s): CMES 38052, HIST 58303

NEHC 30853. Ottoman World/Suleyman II. 100 Units.

This two-quarter seminar focuses on the transformation of the Muslim Ottoman principality into an imperial entity--after the conquest of Constantinople in 1453--that laid claim to inheritance of Alexandrine, Roman/ Byzantine, Mongol/Chinggisid, and Islamic models of Old World Empire at the dawn of the early modern era. Special attention is paid to the transformation of Ottoman imperialism in the reign of Sultan Süleyman the Lawgiver (1520-1566), who appeared to give the Empire its "classical" form. Topics include: the Mongol legacy; the reformulation of the relationship between political and religious institutions; mysticism and the creation of divine kingship; Muslim-Christian competition (with special reference to Spain and Italy) and the formation of early modernity; the articulation of bureaucratized hierarchy; and comparison of Muslim Ottoman, Iranian Safavid, and Christian European imperialisms. The first quarter comprises a chronological overview of major themes in Ottoman history, 1300-1600; the second quarter is divided between the examination of particular themes in comparative perspective (for example, the dissolution and recreation of religious institutions in Islamdom and Christendom) and student presentations of research for the seminar paper. In addition to seminar papers, students will be required to give an oral presentation on a designated primary or secondary source in the course of the seminar.

Instructor(s): Cornell Fleischer Terms Offered: Winter

Equivalent Course(s): CMES 38052, HIST 58303

NEHC 30884. The Brighter Side of the Balkans: Humor & Satire in Lit & Film. 100 Units.

In this course, we examine the poetics of laughter in the Balkans. In order to do so, we introduce humor as both cultural and transnational. We unpack the multiple layers of cultural meaning in the logic of "Balkan humor." We also examine the functions and mechanisms of laughter, both in terms of cultural specificity and general practice and theories of humor. Thus, the study of Balkan humor will help us elucidate the "Balkan" and the "World," and will provide insight not only into cultural mores and social relations, but into the very notion of "funny." Our own laughter in class will be the best measure of our success - both cultural and intellectual.

Instructor(s): Angelina Ilieva Terms Offered: Spring

Prerequisite(s): Readings in English. Background in the Balkans will make the course easier, but is not required.

Equivalent Course(s): NEHC 20884, CMLT 26610, REES 29007

NEHC 30885. Returning the Gaze: The Balkans and Western Europe. 100 Units.

This course investigates the complex relationship between South East European self-representations and the imagined Western "gaze" for whose benefit the nations stage their quest for identity and their aspirations for recognition. We also think about differing models of masculinity, the figure of the gypsy as a metaphor for the national self in relation to the West, and the myths Balkans tell about themselves. We conclude by considering the role that the imperative to belong to Western Europe played in the Yugoslav wars of succession. Some possible texts/films are Ivo Andric, *Bosnian Chronicle*; Aleko Konstantinov, *Baj Ganyo*; Emir Kusturica, *Underground*; and Milcho Manchevski, *Before the Rain*.

Instructor(s): A. Ilieva Terms Offered: Winter

Equivalent Course(s): CMLT 33201, REES 39012, NEHC 20885, REES 29012, CMLT 23201

NEHC 30901. Orality, Literature and Popular Culture of Afghanistan and Pakistan. 100 Units.

Course description unavailable.

Instructor(s): C. R. Perkins Terms Offered: Winter 2013

Equivalent Course(s): HIST 36905, CMLT 36901, CMLT 26901, HIST 26905, NEHC 20901, SALC 26901

NEHC 30937. Nationalism & Colonialism in the Middle East. 100 Units.

The seminar covers the history of the region during the 19th and 20th centuries. It looks at how the modern historiography of modern Middle Eastern studies shaped, and was shaped by, post-colonial studies, subaltern studies, and historical perceptions of urbanity, modernity, Orientalism, and class. The class will pay heed to the fluid and constructed nature of Arab national culture, and the terminology used by Arab nationalists concerning "nahda," "revival," and "rebirth." We will explore various "golden ages" Arab nationalists envisioned, like pre-Islamic Semitic empires, the first Islamic state under the leadership of the Prophet Muhammad, the Umayyads, the Abbasids and Muslim Spain, as a way of analyzing the the constructed and temporal nature of national discourses. We will finally examine the distinction between Pan-Arab nationalism (qawmiyya), which considered Arab culture, history, and language as markers of one's national identity, and often strove for political unity with other Arab states; and territorial-patriotic nationalism (wataniyya), which hailed the national cultures of particular Arab states (Egyptian, Iraqi, Lebanese), focusing on their geography, archaeology, and history the key features of national identity.

Instructor(s): Orit Bashkin Terms Offered: Autumn

NEHC 30943. Colloquium: Iran and Central Asia I-Safvid Iran. 100 Units.

The first quarter will take the form of a colloquium on the sources for and the literature on the political, social, economic, technological, and cultural history of Western and Central Asia from approximately 1500 to 1750. Classroom presentations and a short paper are required.

Instructor(s): J. Woods Terms Offered: Autumn

Prerequisite(s): Open to upper-level undergrads with consent of instructor.

Equivalent Course(s): HIST 58601, CMES 58601

NEHC 30944. Colloquium: Iran and Central Asia II-Safvid Iran. 100 Units.

The second quarter will be devoted to the preparation of a major research paper.

Instructor(s): J. Woods Terms Offered: Winter

Prerequisite(s): HIST 58601; open to upper-level undergraduates with consent

Equivalent Course(s): CMES 58602, HIST 58602

NEHC 31116. Herodotus. 100 Units.

Herodotus has a well-deserved reputation as a great story teller. He broke new ground in his writing of a history of the world as he knew it in prose, while at the same time claiming the heritage of Homeric epic. While reading Herodotus will prove to be a pleasure in itself, it will also help aspiring Hellenists get the hang of the structural characteristics of Greek narrative prose. Readings will be primarily from book 1, with a selection of passages from the later books. Students are encouraged to read the full Histories in translation. Instructor(s): H. Dik Terms Offered: Autumn

Equivalent Course(s): GREK 31116

Instructor(s): D. Martinez Terms Offered: Autumn

Equivalent Course(s): GREK 31116, GREK 21116, FNDL 21116, RLST 21116, BIBL 31116, NEHC 21116

NEHC 32205. Writing Central Asian Cultures. 100 Units.

This course examines contemporary ethnographies to show how anthropologists have tried to capture and represent Central Asian cultures and societies. We will seek out broader ideas and ideologies that inform the anthropologists' research questions.

Instructor(s): Russel Zanca Terms Offered: Winter

Equivalent Course(s): NEHC 21612, ANTH 21612, ANTH 32205

NEHC 34110. The Soviet Empire. 100 Units.

What kind of empire was the Soviet Union? Focusing on the central idea of Eurasia, we will explore how discourses of gender, sexuality and ethnicity operated under the multinational empire. How did communism shape the state's regulation of the bodies of its citizens? How did genres from the realist novel to experimental film challenge a cohesive patriarchal, Russophone vision of Soviet Eurasia? We will examine how writers and filmmakers in the Caucasus and Central Asia answered Soviet Orientalist imaginaries, working through an interdisciplinary archive drawing literature and film from the Soviet colonial 'periphery' in the Caucasus and Central Asia as well as writings about the hybrid conception of Eurasia across linguistics, anthropology, and geography.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): NEHC 24110, REES 24110, CMLT 34111, CRES 34111, REES 34110, CMLT 24111, CRES 24111

NEHC 35004. Readings in Ibn Tufayl's Hayy b. Yaqzan. 100 Units.

A study of Ibn Tufayl's twelfth-century philosophical/mystical romance about a boy spontaneously generated on a desert island who achieves knowledge of God through empirical study of nature. The many themes in Hayy ibn Yaqzan will be studied in relation to the philosophical literature that formed it and in light of recent modern scholarship about it.

Instructor(s): James T. Robinson Terms Offered: Winter

Equivalent Course(s): FNDL 25105, MDVL 15004, RLST 25105, ISLM 35004, HIJD 35004

NEHC 35020. Culture and Zionism. 100 Units.

This seminar will examine the intersection of culture and Zionism. We will begin by considering the historical formation referred to as "cultural Zionism" and examining its ideological underpinnings. Other topics include: Hebrew revival, the role of culture in the Zionist revolution, Israeli culture as Zionist culture. Readings include: Ahad Haam, Haim Nahman Bialik, S.Y. Agnon, Orly Kastel-Blum, Edward Said, Benjamin Harshav.

Instructor(s): Na'ama Rokem Terms Offered: Autumn

Equivalent Course(s): JWSC 25020, CMLT 35020, NEHC 25020, CMLT 25020, HIJD 35020

NEHC 35147. Anthropology of Israel. 100 Units.

This seminar explores the dynamics of Israeli culture and society through a combination of weekly screenings of Israeli fiction and documentary films with readings from ethnographic and other relevant research. Among the (often overlapping) topics to be covered in this examination of the institutional and ideological construction of Israeli identity/ies: the absorption of immigrants; ethnic, class, and religious tensions; the kibbutz; military experience; the Holocaust; evolving attitudes about gender and sexuality; the struggle for minorities' rights; and Arab-Jewish relations.

Equivalent Course(s): NEHC 25147, ANTH 35150, MAPS 35150, CMES 35150, ANTH 25150, JWSC 25149

NEHC 35148. Israel in Film and Ethnography. 100 Units.

This seminar explores the dynamics of Israeli culture and society through a combination of weekly screenings of Israeli fiction and documentary films with readings from ethnographic and other relevant research. Among the (often overlapping) topics to be covered in this examination of the institutional and ideological construction of Israeli identity/ies: the absorption of immigrants; ethnic, class, and religious tensions; the kibbutz; military experience; the Holocaust; evolving attitudes about gender and sexuality; the struggle for minorities' rights; and Arab-Jewish relations. In addition to the readings, participants will be expected to view designated films before class related to the topic.

Equivalent Course(s): CMES 35148, JWSC 25148, ANTH 35148, ANTH 25148, MAPS 35148, NEHC 25148

NEHC 35222. Readings in Syriac Literature. 100 Units.

This course provides the student with an introduction to the major authors and various genres of Syriac literature, including chronicles and historical texts, hagiography, biblical commentary, and letters/responses. Following this introduction, selected portions of several Syriac texts will be read in English translation and discussed in class. A brief (6-10 pages) paper and class presentation will be required (topic subject to the approval of the instructor). There will also be a final exam.

Instructor(s): Stuart Creason Terms Offered: Spring

Equivalent Course(s): NEHC 25222

NEHC 37302. Transmission of Islamic Knowledge in South Asia since 1800. 100 Units.

Equivalent Course(s): SALC 47302, ISLM 37302, HIST 45904

NEHC 39023. Returning the Gaze: The West and the Rest. 100 Units.

Aware of being observed. And judged. Inferior... Abject... Angry... Proud... This course provides insight into identity dynamics between the "West," as the center of economic power and self-proclaimed normative humanity, and the "Rest," as the poor, backward, volatile periphery. We investigate the relationship between South East European self-representations and the imagined Western gaze. Inherent in the act of looking at oneself through the eyes of another is the privileging of that other's standard. We will contemplate the responses to this existential position of identifying symbolically with a normative site outside of oneself-self-consciousness, defiance, arrogance, self-exoticization and consider how these responses have been incorporated in the texture of the national, gender, and social identities in the region. Orhan Pamuk, Ivo Andrić, Nikos Kazantzakis, Aleko Konstantinov, Emir Kusturica, Milcho Manchevski.

Instructor(s): Angelina Ilieva Terms Offered: Autumn

Equivalent Course(s): REES 29023, HIST 23609, CMLT 39023, REES 39023, CMLT 29023, HIST 33609, NEHC 29023

NEHC 40020. The Mediterranean Sea in Antiquity: Imperial Connections. 100 Units.

The Mediterranean Sea has long inspired imaginings of lands and peoples connected by its waters. From the Romans' *Mare Nostrum*, "our sea," to today's variants of "middle sea" - Greek *Mesogeios*, German *Mittelmeer*, and of course, Latin *Mediterranean* - imaginings of the sea have often celebrated its spatial and social cohesion. The Mediterranean continues to possess a middling geopolitical identity today, situated as it is between continental Europe, the Aegean, the Middle East, and North Africa. And yet, despite our diachronic investment in recognizing the Mediterranean's grand narrative as a locus of cultural connectivity, its long-term histories of interregional dynamics remain difficult to approach holistically. This concern is especially salient when it comes to the study of ancient empires, those large, expansionary polities whose social, political, and economic practices drew disparate groups together, and at times forced them apart. This class has two closely related objectives. First, we tackle the most ambitious pieces of scholarship on Mediterranean history to evaluate how various disciplines have sought to analyze and to bound the sea as a cartographic whole. In the process, we gain an appreciation not only for the methodological and interpretive scales involved in such an undertaking, but for the various disciplinary strategies the Mediterranean's diverse histories have inspired. Second, we interrogate one sociopolitical structure - the empire - and question how the Mediterranean encouraged and challenged imperialism as a recurring formation that worked to maintain sovereignty across broad geographical expanses. In doing so, we explore the variegated processes of cultural connectivity that have characterized the ancient Mediterranean from east to west.

Equivalent Course(s): ANCM 41717, CDIN 41717, ANTH 46715, HIST 51300, CLAS 41717

NEHC 40122. Nations in Crisis, Nations in Diaspora. 100 Units.

The class compares the histories of both Iraq and Palestine to explore questions relating to colonialism, nationalism and resistance in the modern Middle East. Each class will take up a theme, ranging from arm resistance to gender roles in post colonialist contexts, and will compare the Iraqi to the Palestinian case.

Instructor(s): Orit Bashkin Terms Offered: Spring

Equivalent Course(s): HIST 35711

NEHC 40470. Readings in Maimonides' Guide of the Perplexed. 100 Units.

A careful study of select passages in Maimonides' *Guide of the Perplexed*, focusing on the method of the work and its major philosophical-theological themes, including: divine attributes, creation vs. eternity, prophecy, the problem of evil and divine providence, law and ethics, the final aim of human existence.

Instructor(s): James Robinson Terms Offered: Winter

Equivalent Course(s): RLST 21107, ISLM 45400, HREL 45401, HIJD 45400, JWSC 21107, MDVL 25400, RLVC 45400, FNDL 24106

NEHC 40600. Islamic Love Poetry. 100 Units.

The focus of this course is classical Islamic love poetry, Arabic and Persian love lyric will be covered, as well as some Ottoman love lyric (at least in translation). In the past we have incorporated Urdu, Punjabi, Bangla, Bosnian, and Turkish traditions, and-for comparative and historical purposes-Hebrew poetry from medieval Andalus. Because none of us are proficient in the all these languages, students who are proficient a given language are asked to provide a guide (including text, translation, explanation of key vocabulary, etc.) for selected poems from in that language. Each member of the class will be asked to present one poem guide, in addition to a final assignment. Among the poets commonly included in the course are Ibn Zaydun, Ibn al-Farid, Ibn al-'Arabi, Rumi, Hafiz, Baba Fighani, Na'ili, Mir Dard, Bulleh Shah, and Ghalib.

Equivalent Course(s): CMLT 40100, ISLM 40100, RLIT 40300

NEHC 40601. Readings in the Text of the Qur'an. 100 Units.

Intensive readings in the Arabic text of the Qur'an. We focus on reading the Qur'anic text closely, with attention to grammar, syntax, recitation protocols, vocabulary, parables, symbols, figures of speech, rhetoric, changes in voice and person, allusions to parallel Qur'anic passages, and theology. Classical and modern commentaries are consulted, but the primary emphasis is on the Qur'anic text itself. The winter 2013 course will focus upon suras attributed to the Meccan period of Muhammad's prophetic career, particularly those such as suras 52, 53, 55, and 56 that take up the theme of the garden. Students may well have different levels of Arabic; the course does not make Arabic proficiency into a matter of evaluation, but encourages each participant to work at his or her level. Instructor(s): Michael Sells Terms Offered: Spring
Prerequisite(s): The second quarter of "Introduction to Qur'anic Arabic", or 2 years of Arabic or the equivalent.
Equivalent Course(s): ISLM 40500

NEHC 40604. Readings in Arabic Religious Texts. 100 Units.

Texts to be covered include the 27th Sura of the Qur'an, selections from the Adab work *Muhadarat al-Abrar* of Ibn 'Arabi, and examples of the Hadith Qudsi genre (hadiths that report divine, non-Qur'anic messages given to the Prophet). Instructor(s): Michael Sells Terms Offered: Spring
Equivalent Course(s): ISLM 50200, HIJD 50200

NEHC 40605. From Caliphate to Nation State: A Survey of Modern Muslim Constitutional Thought. 100 Units.

Equivalent Course(s): ISLM 49200

NEHC 40666. Hell! Discussion about Hell in Middle Eastern Cultures. 100 Units.

The class looks at images of, and narratives about, hell, from depictions of hell in the Quran to depictions of contemporary refugee camps as modern infernos. We will also study the construction of the image of Satan (Iblis) and of demons (jins) in various Islamic texts. The class will focus on reading of primary sources in translation (*The Quran*, Ibn 'Arabi, Abu al-'Ala al-Ma'ari, Nagib Mahfouz, Ghassan Kanfani) and the text book "Locating Hell in Islamic Traditions", edited by Christian Lange (Brill, 2015, open online access) Instructor(s): Orit Bashkin Terms Offered: Autumn
Equivalent Course(s): NEHC 10666

NEHC 40711. Cinema Without an Archive. 100 Units.

This seminar takes a comparative approach to issues of archival precarity with particular attention to cinema, memory, and materiality. We will investigate the fraught and contested histories and problems of the archive and the limitations of archival thinking and practice in a comparative context, focusing on post-colonial and post-conflict sites in the Middle East, Asia, Africa, as well as the low rates of survival for minoritarian film practices in the United States. Some of these problems are about gaps: how do we attend to the absence and instability of the film artifact? How do these problems surface-and how are they mediated-in postcolonial sites that grapple with conflict, weak state structures, and contested commemorative practices and issues? Other questions concern definitive versions, remediation, degraded extant material, and barriers to archival access. Topics include the use of extrafilmic evidence and primary paracinematic evidence, fiction and speculative approaches to history, theories of evidence, archival theories and practices, commemorative practices, and the role of state and nongovernmental institutions in the formation of cultural memory. Instructor(s): Allyson Nadia Field & Ghenwa Hayek Terms Offered: Winter
Prerequisite(s): none
Note(s): There will be a weekly screening with this seminar.
Equivalent Course(s): CMLT 67814, CMST 67814, CDIN 67814

NEHC 40925. Readings in Islamic Law. 100 Units.

This course provides a survey of the primary literatures of Islamic law and their treatment in modern scholarship. Primary texts read and discussed in class cover the following genres: compendium (*mukhtasar*), commentary (*sharh*), legal disputation (*jadal*), legal theory (*usul al-fiqh*), legal maxims (*qawa'id fiqhiyya*), handbooks for judges (*adab al-qadi*), handbooks for muftis (*adab al-mufti*), and legal responsa (*fatawa*). We will read closely selected excerpts from each of these genres and discuss relevant secondary literature in order to contextualize the primary texts thematically and historically and to examine critically the research questions that have thus far animated the modern study of Islamic law. Undergraduate students by instructor permission only. Instructor(s): Ahmed El Shamsy Terms Offered: Autumn
Prerequisite(s): 3 years of Arabic or the equivalent
Equivalent Course(s): ISLM 40925, CMES 40925, ARAB 40925

NEHC 41000. Writings of Ibn al-'Arabi. 100 Units.

This course will focus on sections from Ibn al-'Arabi's *al-Futuhat al-Makkiyya* "The Meccan Openings," including chapters 1 and 10, as well as the commentary he wrote upon his own love poems. The important new critical edition of the *Futuhat*, by Abd al-'Aziz Sultan al-Mansub (Yemen, 2013), will serve as the base text. We will also engage one of the chapters from Ibn 'Arabi's *Fusus al-Hikam* (Bezels of Wisdom) and will be able to take advantage of the new, fully-vocalized edition of that work. Equivalent Course(s): ISLM 51000

NEHC 41005. Colloquium: Late Antique Mediterranean I. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. Will continue in winter quarter. Equivalent Course(s): CLAS 31515, HIST 41005, ANCM 31515

NEHC 41006. Colloquium: Late Antique Mediterranean II. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. In the winter quarter, we focus on research topics for the colloquium paper. Equivalent Course(s): CLAS 31516, HIST 41006, ANCM 31516

NEHC 42800. The Book of Kings: Seminar. 100 Units.

Equivalent Course(s): BIBL 52800

NEHC 44602. Song of Songs. 100 Units.

Equivalent Course(s): BIBL 44602

NEHC 45516. Seminar: State and Society under the Ptolemies. 100 Units.

Recent research encourages a reexamination of the classical opposition between pre-modern and modern states. As traditionally defined, the key difference would be the inability of a pre-modern state to exercise in-depth control of society. Being unable to develop a significant bureaucratic apparatus, a pre-modern state could have only achieved a weak control of the people it administered. To a certain extent, the opposition still has some validity, but the alleged "weakness" of pre-modern states, for instance in terms of capacity for extraction of revenue, should be revisited. Thanks to the sources available, the Ptolemaic possessions (by which one will understand not only Egypt but all the other territories under Ptolemaic control, from Asia Minor to Syria and from Cyrene to Cyprus) provide an ideal case study to test these concepts. We will examine written documents in their original languages, but translations will also be provided, which will allow students who do not control the ancient languages to also participate in the seminar. Equivalent Course(s): HIST 70407, ANCM 45516

NEHC 48603. Talking Birds and Cunning Jackals: A Survey of Indo-Persian Prose. 100 Units.

Prerequisites: intermediate level of Persian. This course features a selection of Persian prose texts such as tales, premodern translations of romance and epic texts on Indian themes (Mahābhārata, Rāmāyaṇa, Pañcatantra, etc...), letters, models of elegant prose writings, and anecdotes from chronicles, tadhkira literature, and autobiographical writings. We will first read easy, plain prose texts, such as Naqīb Khān's translation of the Mahābhārata commissioned by Akbar, which will allow the students to familiarize themselves with the cultural context of South Asia. Then, toward the middle of the quarter we will shift to increasingly difficult texts to reach the characteristically ornate prose of the Mughal period, such as #Ināyat Allāh Kambūh's Bahār-i dānish or Bedlī's Chahār #un#ur. Students with an intermediate level of Persian will thus be able to take this class and then, the following year, be ready to attend the more challenging course titled "Persian Philology and Poetry in South Asia" offered every other year, alternately with the present survey of Indo-Persian prose. Thibaut d'Hubert and Muzaffar Alam, Spring 2018

Equivalent Course(s): SALC 48603, PERS 48693

NEHC 49000. Thesis Research: Nehc. 100 Units.

Students may register for this course while conducting research for the MA thesis. Students need to obtain permission of their advisor and contact the department coordinator for assistance in registration.

NEAR EASTERN LANGUAGES COURSES

NELG 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring

Note(s): Select section from faculty list

PERSIAN COURSES

PERS 30220. Poetics/Politics Modern Iran. 100 Units.

Poetics/Politics Modern Iran

Terms Offered: Spring

Equivalent Course(s): PERS 20220

PERS 30320. Persian Poetry: Shahnameh of Ferdowsi. 100 Units.

The Shahnameh, the Persian "Book of Kings," is generally classed as an epic or national epic. While it does not lack for battling champions and heroic saga, it also includes episodes in a variety of disparate genres and themes: creation narrative, mythology, folk tale, romance, royal chronicle, and political history. In this course we gain familiarity with the style and language of Ferdowsi's Shahnameh by slow reading and discussion of select episodes in Persian, in tandem with a reading of the whole text in English translation. We approach the work as a foundational text of Iranian identity;; compendium of pre-Islamic mythology and lore; a centrifugal axis of Persianate civilization and Iranian monarchical tradition throughout Anatolia, Central Asia and South Asia; and as an instance of "world literature." We will read with an eye toward literary structure; genre; Indo-Iranian mythology; political theory and commentary; character psychology; ideals of masculinity, femininity and heroism; the interaction of text, oral tradition, illustration, scholarship, and translation in the shaping of the literary reception of the Shahnameh; and, of course, the meaning(s) of the work. We also address wider issues of textual scholarship: the sources of the Shahnameh, the scribal transmission of Ferdowsi's text, and the production of modern critical editions and theories of textual editing. Class discussions will be in English.

Instructor(s): Franklin Lewis Terms Offered: Autumn

Prerequisite(s): PERS 30320; 2 years of Persian or the equivalent.

Equivalent Course(s): ISLM 20320, PERS 20320, FNDL 26108

PERS 30321. Persian Poetry: Shahnameh-2. 100 Units.

The Shahnameh, the Persian "Book of Kings," is generally classed as an epic or national epic. While it does not lack for battling champions and heroic saga, it also includes episodes in a variety of disparate genres and themes: creation narrative, mythology, folk tale, romance, royal chronicle, and political history. In this course we gain familiarity with the style and language of Ferdowsi's Shahnameh by slow reading and discussion of select episodes in Persian, in tandem with a reading of the whole text in English translation. We approach the work as a foundational text of Iranian identity;; compendium of pre-Islamic mythology and lore; a centrifugal axis of Persianate civilization and Iranian monarchical tradition throughout Anatolia, Central Asia and South Asia; and as an instance of "world literature." We will read with an eye toward literary structure; genre; Indo-Iranian mythology; political theory and commentary; character psychology; ideals of masculinity, femininity and heroism; the interaction of text, oral tradition, illustration, scholarship, and translation in the shaping of the literary reception of the Shahnameh; and, of course, the meaning(s) of the work. We also address wider issues of textual scholarship: the sources of the Shahnameh, the scribal transmission of Ferdowsi's text, and the production of modern critical editions and theories of textual editing. Class discussions will be in English.

Instructor(s): Franklin Lewis Terms Offered: Spring

Prerequisite(s): PERS 30320; 2 years of Persian or the equivalent.

Equivalent Course(s): PERS 20321, SALC 20602, FNDL 26109, ISLM 30321

PERS 48693. Talking Birds and Cunning Jackals: A Survey of Indo-Persian Prose. 100 Units.

Prerequisites: intermediate level of Persian. This course features a selection of Persian prose texts such as tales, premodern translations of romance and epic texts on Indian themes (Mahābhārata, Rāmāyaṇa, Pañcatantra, etc...), letters, models of elegant prose writings, and anecdotes from chronicles, tadhkira literature, and autobiographical writings. We will first read easy, plain prose texts, such as Naqīb Khān's translation of the Mahābhārata commissioned by Akbar, which will allow the students to familiarize themselves with the cultural context of South Asia. Then, toward the middle of the quarter we will shift to increasingly difficult texts to reach the characteristically ornate prose of the Mughal period, such as #Ināyat Allāh Kambūh's Bahār-i dānish or Bedlī's Chahār #un#ur. Students with an intermediate level of Persian will thus be able to take this class and then, the following year, be ready to attend the more challenging course titled "Persian Philology and Poetry in South Asia" offered every other year, alternately with the present survey of Indo-Persian prose. Thibaut d'Hubert and Muzaffar Alam, Spring 2018

Equivalent Course(s): SALC 48603, NEHC 48603

SUMERIAN COURSES**TURKISH COURSES****TURK 30101-30102-30103. Advanced Turkish I-II-III.**

The objectives of the course are to develop advanced language skills in Modern Turkish through reading, writing, listening, and speaking, with special emphasis on the proper usage of vocabulary and idiomatic expressions, and to continue the study of Turkish literature and texts begun in the second year. This course is conducted entirely in Turkish. The course is designed to bring the advanced student to a professional level of proficiency. Students are expected to produce advanced level writing in Turkish.

TURK 30101. Advanced Turkish I. 100 Units.

Advanced Turkish students will develop their language skills in speaking, reading, translating, listening, and writing, while learning about Turkish society and culture at the same time. To address all of these aspects each class is divided into three sections which focuses on a specific skill. Section one is the conversation part: it involves reading (or listening to) short (audio) pieces or phrases on a given topic; section two is reading and translation: students read and prepare pieces from Turkish literature, literature readings are short stories or selected parts from novels; section three is the listening part: by watching parts of a Turkish movie, students' skills in listening and understanding will get faster while we progress through the movie.

Instructor(s): Kagan Arik Terms Offered: Autumn

TURK 30102. Advanced Turkish II. 100 Units.

Advanced Turkish students will develop their language skills in speaking, reading, translating, listening, and writing, while learning about Turkish society and culture at the same time. To address all of these aspects each class is divided into three sections which focusses on a specific skill. Section one is the conversation part: it involves reading (or listening to) short (audio) pieces or phrases on a given topic; section two is reading and translation: students read and prepare pieces from Turkish literature, literature readings are short stories or selected parts from novels; section three is the listening part: by watching parts of a Turkish movie, students' skills in listening and understanding will get faster while we progress through the movie.

Terms Offered: Winter

TURK 30103. Advanced Turkish/Ottoman Turkish III. 100 Units.

Advanced Turkish students will develop their language skills in speaking, reading, translating, listening, and writing, while learning about Turkish society and culture at the same time. To address all of these aspects each class is divided into three sections which focuses on a specific skill. Section one is the conversation part: it involves reading (or listening to) short (audio) pieces or phrases on a given topic; section two is reading and translation: students read and prepare pieces from Turkish literature, literature readings are short stories or selected parts from novels; section three is the listening part: by watching parts of a Turkish movie, students' skills in listening and understanding will get faster while we progress through the movie.

Instructor(s): Helga Anesthofer Terms Offered: Spring

TURK 30102. Advanced Turkish II. 100 Units.

Advanced Turkish students will develop their language skills in speaking, reading, translating, listening, and writing, while learning about Turkish society and culture at the same time. To address all of these aspects each class is divided into three sections which focusses on a specific skill. Section one is the conversation part: it involves reading (or listening to) short (audio) pieces or phrases on a given topic; section two is reading and translation: students read and prepare pieces from Turkish literature, literature readings are short stories or selected parts from novels; section three is the listening part: by watching parts of a Turkish movie, students' skills in listening and understanding will get faster while we progress through the movie.

Terms Offered: Winter

TURK 30103. Advanced Turkish/Ottoman Turkish III. 100 Units.

Advanced Turkish students will develop their language skills in speaking, reading, translating, listening, and writing, while learning about Turkish society and culture at the same time. To address all of these aspects each class is divided into three sections which focuses on a specific skill. Section one is the conversation part: it involves reading (or listening to) short (audio) pieces or phrases on a given topic; section two is reading and translation: students read and prepare pieces from Turkish literature, literature readings are short stories or selected parts from novels; section three is the listening part: by watching parts of a Turkish movie, students' skills in listening and understanding will get faster while we progress through the movie.

Instructor(s): Helga Anesthofer Terms Offered: Spring

TURK 30200. Colloquium: Sources for the Study of the Ottoman World. 100 Units.

This course introduces the students the major sources for the study of Ottoman history and culture.

Instructor(s): Hakan Karateke Terms Offered: Autumn

TURK 30501-30502-30503. Ottoman Turkish I-II-III.

A selection of Turkish texts in Arabic script, both printed and handwritten, introduced in order of difficulty, and ranging from the fourteenth to the nineteenth centuries. Texts are drawn from chronicles, official documents, memoirs, poetry, and other genres.

TURK 30501. Ottoman Turkish I. 100 Units.

A selection of Turkish printed texts in Arabic script from the nineteenth and twentieth centuries is introduced in order of difficulty. Hakan Karateke's unpublished "Ottoman Reader" serves as a text book. The texts are drawn from historical textbooks, official documents, novels, and other genres.

Instructor(s): H. Anesthofer-Karateke Terms Offered: Autumn

Prerequisite(s): TURK 20103 or consent of instructor

TURK 30502. Ottoman Turkish II. 100 Units.

A selection of Turkish printed texts in Arabic script from the nineteenth and twentieth centuries is introduced in order of difficulty. Hakan Karateke's unpublished "Ottoman Reader" serves as a text book. The texts are drawn from historical textbooks, official documents, novels, and other genres.

Instructor(s): H. Aneshofer-Karateke Terms Offered: Winter

Prerequisite(s): TURK 30501

TURK 30503. Ottoman Turkish III. 100 Units.

A selection of Turkish printed texts in Arabic script from the nineteenth and twentieth centuries is introduced in order of difficulty. Hakan Karateke's unpublished "Ottoman Reader" serves as a text book. The texts are drawn from historical textbooks, official documents, novels, and other genres.

Instructor(s): H. Aneshofer-Karateke Terms Offered: Spring

Prerequisite(s): TURK 30502

TURK 30502. Ottoman Turkish II. 100 Units.

A selection of Turkish printed texts in Arabic script from the nineteenth and twentieth centuries is introduced in order of difficulty. Hakan Karateke's unpublished "Ottoman Reader" serves as a text book. The texts are drawn from historical textbooks, official documents, novels, and other genres.

Instructor(s): H. Aneshofer-Karateke Terms Offered: Winter

Prerequisite(s): TURK 30501

TURK 30503. Ottoman Turkish III. 100 Units.

A selection of Turkish printed texts in Arabic script from the nineteenth and twentieth centuries is introduced in order of difficulty. Hakan Karateke's unpublished "Ottoman Reader" serves as a text book. The texts are drawn from historical textbooks, official documents, novels, and other genres.

Instructor(s): H. Aneshofer-Karateke Terms Offered: Spring

Prerequisite(s): TURK 30502

TURK 40586. Advanced Ottoman Reading I. 100 Units.

This course is in Advanced Ottoman Readings.

Instructor(s): H. Karateke Terms Offered: Winter

Prerequisite(s): TURK 30503 or equivalent

Note(s): Open to qualified undergraduate students

TURK 40589. Advanced Ottoman Historical Texts. 100 Units.

Based on selected readings from major Ottoman chronicles from the fifteenth to the seventeenth centuries, the course provides an introduction to the use of primary narrative materials and an overview of the development and range of Ottoman historical writing. Knowledge of modern and Ottoman Turkish required.

Instructor(s): C. Fleischer Terms Offered: Autumn

Prerequisite(s): Consent required

Equivalent Course(s): HIST 58301

TURK 49901. Reading and Research in Old Turkic. 100 Units.

Independent study in Old Turkic.

Terms Offered: Autumn Spring Winter

UGARITIC COURSES

UZBEK COURSES

UZBK 49900. Reading and Research Course: UZBK. 100 Units.

Reading and Research Course: UZBK



DEPARTMENT OF PHILOSOPHY

Department Website: <http://philosophy.uchicago.edu>
Chair

- Michael Kremer

Professors

- Matthew Boyle
- Daniel Brudney
- James Conant
- Arnold Ira Davidson, Divinity
- Michael Kremer
- Gabriel Richardson Lear, Social Thought
- Jonathan Lear, Social Thought
- Martha C. Nussbaum, Law
- Robert Pippin, Social Thought
- Robert J. Richards, History
- Candace A. Vogler

Associate Professors

- Jason Bridges
- Agnes Callard
- Kevin Davey
- David Finkelstein
- Anton Ford
- Anubav Vasudevan
- Malte Willer

Assistant Professors

- Matthias Haase
- Raoul Moati
- Daniel Moerner
- Thomas Pashby
- Ginger Schultheis

Lecturers

- Benjamin Callard
- Ben Laurence
- Bart Schultz
- Lisa Van Alstyne

Emeritus Faculty

- Howard Stein
- Josef J. Stern
- William W. Tait
- William C. Wimsatt

The programs in philosophy are designed to develop skill in philosophical analysis, to enable the student to think clearly, systematically, and independently on philosophical issues, and to achieve a thorough acquaintance with major classics and contemporary works in philosophy. Philosophy classes are conducted so that students may develop philosophical skills by class discussions and by the writing of carefully directed papers.

The following is an outline of the main features of the graduate program. For full details, please write the Department of Philosophy directly.

GRADUATE DEGREES

The graduate program in philosophy is primarily a doctoral program. Admission as a graduate student normally implies that, in the opinion of the department, the student is a promising candidate for the Ph.D.

degree. The Master of Arts degree, however, may be awarded to students in the program who meet the requirements specified below.

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions>.

Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Current minimum scores, etc., are provided with the application. For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu>, or call them at (773) 702-7752.

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

THE DEGREE OF MASTER OF ARTS

The objective of the program is the Ph.D. degree. Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study in a number of areas of interest to students. Further details about the MAPH program are available at <http://maph.uchicago.edu/>

Doctoral students who are enrolled in a Ph.D. program at the University of Chicago may receive an M.A. in Philosophy. These can be either:

- Doctoral students in another discipline who seek a "secondary" M.A. in Philosophy, in conjunction with their doctoral studies in that other discipline; or
- Doctoral students in Philosophy who want to receive the M.A.

The requirements for the degree are the same in either case. The requirements can be satisfied entirely by course-work; no thesis is required. They are specified in five clauses:

- **Quality:** No course for which the student received a grade lower than a B+ will satisfy any requirement for the M.A.
- **Level:** Only courses taken at the graduate level (that is, with a course-number of 30000 or higher) can satisfy any requirement for the M.A.
- **Quantity:** The student must complete at least eight courses in Philosophy at the University of Chicago. (Reading and research courses do not count toward satisfying this requirement, nor do courses taken pass/fail—except the first-year seminar, which counts as one course if passed.)
- **Distribution:** The student must have taken at least one designated course in each of the Philosophy Department's five "areas" — namely:
 - Area I: Value theory
 - Area II: Philosophy of science, philosophy of language, and logic
 - Area III: Epistemology and metaphysics
 - Area IV: Ancient or Medieval philosophy
 - Area V: Modern philosophy (17th-19th centuries)
- **Elementary Logic:** The student must demonstrate competence in elementary logic. This can be achieved by an interview in which the candidate satisfies one of the Department's logicians that he or she has the required competence, or by taking the Elementary Logic course (PHIL 30000 Elementary Logic), or any more advanced logic course offered by the Department. Philosophy 30000 can count as one of the minimum eight courses, but it does not satisfy the Area II requirement. A more advanced logic class does both.

APPLICATION PROCEDURE

Doctoral Students in the Department of Philosophy may apply for the M.A. at any time after they have completed the requirements. 1. Contact the Department Coordinator so that the proper paperwork is submitted verifying your courses (above) and 2. contact the office of the Humanities Dean of Students in order to gain access to the degree application in <http://my.uchicago.edu>. Keep your expected graduation date set to the date you anticipate receiving the Ph.D.

Students in a Ph.D. program at the University of Chicago in a department other than Philosophy who wish to receive a "secondary" M.A. in Philosophy must first apply for admission to the M.A. program in the department of Philosophy. No student can apply unless she has taken at least three Philosophy courses, and it is expected that the student will apply soon after completing that number of courses. To initiate the application

process, the student should set up an appointment with the Assistant Dean of Students for Admissions in the Division of Humanities who will direct the student through the required paperwork and obtain:

- The applicant's transcript of courses taken for the B.A.
- His/Her GRE scores
- A transcript of the applicant's courses at the University of Chicago taken up to the time of the application.
- A sample of her best philosophical writing. This may but need not be a paper written for one of the applicant's already completed Philosophy courses at the University.
- A brief letter from the chair or director of graduate studies of the applicant's home department supporting the application. The letter should explain why the student is seeking an M.A. in philosophy to complement her doctoral studies.
- Names of two faculty in the Dept. of Philosophy who can comment on work done by the applicant and on her philosophical potential.
- A statement by the applicant that explains why she is seeking an M.A. in Philosophy.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The divisional and University requirements for the Ph.D. degree must be fulfilled. Departmental requirements are as follows:

COURSE REQUIREMENTS

The Course Requirement has seven parts concerning:

- The number of required courses
- The distribution of required courses
- The logic requirement
- Required progress
- Policies concerning incompletes
- Grades
- Transfer credits

NUMBER OF REQUIRED COURSES

Students must complete at least thirteen courses in their first two years of study: the first year seminar and twelve graduate courses.

First-year students must enroll in the first-year seminar. The exact organization and scheduling varies from year to year according to the instructor's discretion. It is graded on a pass-fail basis.

In addition, twelve graduate courses must be completed with a grade of B or better:

- At least ten of these courses must be in the Philosophy Department listings;
- Reading and research courses do not count among these twelve classes
- At least one must be a graduate seminar in Philosophy

DISTRIBUTION OF REQUIRED COURSES

Students are required to take one course in each of the following three areas of contemporary philosophy:

- Value theory (listed in the course descriptions as I)
- Philosophy of science, philosophy of language, and logic (listed in the course descriptions as II)
- Epistemology and metaphysics (listed in the course descriptions as III)

and three courses on the history of philosophy as follows:

- A figure or movement in either Ancient or Medieval Philosophy (listed in the course descriptions as IV)
- A figure or movement in Modern Philosophy from the 17th through 19th centuries (listed in the course descriptions as V)
- One additional course on a figure or movement in either IV or V.

It should be noted that not all graduate courses satisfy a field distribution requirement; those not classified in the published course descriptions as belonging to I-V cannot be used to satisfy the distribution requirement. Nor can Philosophy 30000 (Elementary Logic) be used to satisfy a field distribution requirement.

LOGIC REQUIREMENT

There is a requirement in logic that can be satisfied in several ways.

- By passing PHIL 30000 Elementary Logic with a grade of B or higher. Philosophy 30000 is offered every Autumn quarter. It counts toward the twelve course requirement but does not satisfy the field II distribution requirement.
- By passing a course equivalent to or better than Philosophy 30000 (Elementary Logic), at another institution or in another department at Chicago, with a grade of B+ or higher. The equivalence of the course in question to Philosophy 30000 will be determined by the instructor in Philosophy 30000 in the year in question, on the basis of an interview with the student, and such evidence as the syllabus for the course, the textbook for the course, and any other course materials which the student can provide. Note that satisfying the logic requirement in this way will count neither towards one of the twelve required courses nor towards satisfying the field II distribution requirement.
- By passing an advanced graduate course in logic with a grade of B or higher. Passing an advanced graduate course in logic would both satisfy the logic requirement and count towards the field II distribution requirement.

REQUIRED PROGRESS

Courses must be completed, with a grade of B or better, according to the following timetable.

- Two courses should be completed by the beginning of the Winter quarter of the first year
- Four courses (at least three in the Philosophy Department) should be completed by the beginning of the third quarter
- Six courses should be completed by 30 September of the second year
- Ten courses should be completed by the end of the fifth quarter
- All thirteen courses (twelve plus the first year seminar) must be completed by 30 September following the sixth quarter.

In addition to this timetable, students should keep in mind that because they are expected to be working on their Preliminary Essay over the summer following their sixth quarter, they would be ill-advised not to have completed their course requirements by the early part of the summer.

INCOMPLETES

At the discretion of the instructor, coursework not completed on time may be regarded as an "incomplete." This means that the instructor will permit a student to complete the work for a course after the normal deadline.

The instructor sets the time period for completion of the incomplete, subject to the following limitation: all coursework must be submitted by September 30th following the quarter in which the course was taken in order to count toward fulfillment of the requirements for the M.A. and Ph.D. This date is an absolute deadline and is not subject to further extensions by individual faculty members.

Note: Students in their first year in the program are not permitted to take any incompletes in their first quarter.

GRADES

Satisfactory grades for work toward the Ph.D. in Philosophy are A, A-, B+, and B.

For Philosophy faculty, those grades mean the following. A: pass with distinction; A-: high pass; B+: pass; B: low pass.

TRANSFER CREDITS

The following policy applies to the Philosophy Ph.D. program. Special requirements of joint programs take precedence over this policy.

1. Of the required 12 graduate courses, no more than 2 can be taken at the University, but outside the Philosophy Department.
2. Of the required 12 graduate courses, no more than 3 can be transferred from other institutions.
3. Of the required 12 graduate courses, at least 9 must be taken within the Philosophy Department's course offerings.
4. Only courses taken while enrolled in a doctoral program in Philosophy can be counted towards the required 12 graduate courses.

For example, a student might transfer 2 courses from another institution and take one course from another department within the University, with the remaining 9 courses taken within the Philosophy Department. Or a student might transfer 3 courses from another institution, with the remaining 9 courses taken within the Philosophy Department.

Students wishing to obtain credit for graduate courses taken from the listings of other departments within the University toward the required 12 course do not need to petition the department, within the two-course limit specified above.

Students wishing to obtain transfer credit for courses taken at other institutions must petition the Graduate Program Committee. Students should be prepared to provide evidence in support of their transfer application at the request of the Committee. Such evidence may include course descriptions, syllabi, assignments, written work completed for the course, and so on. Students who are transferring from other graduate programs must make such a request upon their entry into the Philosophy Department. Students who take a course at another institution while enrolled in the PhD program should consult with the Director of Graduate Studies beforehand, but must still petition the Graduate Program Committee to have the course accepted for transfer credit upon completion of the course.

Note that elementary logic courses taken outside the department may fulfill the elementary logic requirement but may not be used to meet the 12 course requirement. See "Logic Requirement" above for further details.

FOREIGN LANGUAGE EXAM

All students must pass an examination in French, German, Latin, or Greek by the end of Spring quarter of the fourth year or before the topical examination, whichever comes first. (There is a special rule for students who wish to write theses on ancient Greek or Roman philosophy; this is detailed below).

There are two kinds of language examinations: those administered by the Department and those administered by the University. Departmental language exams will be given twice a year and may not be taken more than twice.

Students who take the University language examination must receive a "High Pass." These are offered every quarter and there is a fee for taking them.

There is a special requirement for those working in ancient philosophy or German philosophy, since work in these fields depends heavily on one's ability to use the relevant languages.

Any student intending to write a thesis on ancient philosophy must pass the Departmental or University exam in Greek (the latter with a "High Pass"). Any student intending to write a thesis on Hellenistic or Roman philosophy must also pass the Departmental or University exam in Latin (the latter with a "High Pass"). Any student intending to write a thesis on German philosophy must pass the Departmental or University exam in German with a "High Pass".

Such students may take the Departmental exam in Greek or Latin or German a maximum of three times (as opposed to two times, which is the rule for other languages).

PRELIMINARY ESSAY

In the Spring quarter of their second year students will register for the first quarter of a two-quarter (Spring, Autumn) workshop on the preliminary essay. The workshop involves discussion of general issues in writing the essay and student presentations of their work. Although students do not register for the Summer quarter, they are expected to make significant progress on their preliminary essay over the summer.

By the end of the eighth week of the Spring quarter at the latest each student will submit to the Director of Graduate Studies a proposed topic and a ranked list of possible readers in the Philosophy Department. The Graduate Program Committee will evaluate proposed topics along the following lines:

- Is the topic philosophically interesting?
- Can a paper on the topic be completed within the given time?
- Can a committee be formed to supervise an essay on the topic?

If the topic is approved, the Graduate Program Committee will form a preliminary essay committee for the student in question consisting of two faculty readers, each of whom the student is expected to consult regularly and each of whom have equal responsibility in directing the preliminary essay. The student's primary responsibility in this process is regularly to provide each of the faculty readers with a new draft of the essay and then rewrite the most recent draft in accordance with their instructions. The primary responsibility of the faculty readers is to provide the student with prompt and focused instructions about how to rewrite each draft, while ensuring that it remain within the page-length requirement. The preliminary essay should be no longer than 8,000 words in the body of the text, with an additional 1000 words of philosophical prose permitted in the footnotes. The word-count does not include bibliographical and philological footnotes or block quotations in the text.

In addition to the supervision furnished by the student's preliminary essay committee, further direction and structure is provided through participation in the Preliminary Essay Seminar, which runs for two quarters. Every student enrolled in the PhD program is required to take the Preliminary Essay Seminar for credit during the Spring Quarter of their second year and the Fall Quarter of their third year. The seminar is taught by the Director of Graduate Studies, who offers additional supervision and oversight throughout the entire preliminary essay process, from beginning to end. One of the primary purposes of the Preliminary Essay Seminar is to provide a forum in which students can present their ongoing work on the essay in a seminar-environment, in order to discuss it with their peers and receive additional oral feedback on their work.

From the point of view of the faculty, the aim of the exercise of the preliminary essay is to enable the student to acquire the following two skills before embarking upon a full-scale dissertation: (1) to learn to improve a piece of philosophical prose by subjecting it to many rounds of revision, without in the process permitting it to grow in length, and (2) to learn to work with a committee of faculty advisors whose distinct forms of supervision are to be synthesized and harmonized in that single piece of writing. From the point of view of the student, the exercise of the preliminary essay affords the following two opportunities: (1) to test out a possible dissertation topic, without having immediately to make a costly investment of time and effort in it, and (2) to test out a pair of possible dissertation advisors, without immediately having to commit to these individuals as final choices for members of the student's dissertation committee. If, after completing the preliminary essay, a student wishes to change (one or more of) their faculty advisors or their topic or both, then they are utterly free to do so.

The final draft of the Preliminary Essay must be submitted by the first day of the Winter quarter of the student's third year. Essays submitted late are penalized as follows: A letter grade is reduced by one notch if the essay is submitted after the deadline but before the first day of the sixth week of the Winter quarter (e.g. an 'A' is reduced to an 'A-'). A letter grade is reduced by two notches if the essay is submitted after the first day of the sixth week of the Winter quarter but by the end of Exam Week of the Winter quarter (e.g. an 'A' is reduced to a B+). Essays submitted after the end of the Winter quarter do not count toward satisfaction of the requirement.

TOPICAL EXAMINATION

Following the Preliminary Essay, students begin work toward their dissertations. During the Winter and Spring quarters of their third year, they should be meeting with various faculty members to discuss and refine possible dissertation topics, and possible dissertation committees.

By the end of the seventh week of the spring quarter, each student should meet with a prospective committee for an informal "dissertation chat," based on a "dissertation sketch" submitted to those faculty and to the Graduate Program Committee. The character of that sketch will vary from case to case; but, in any case, is not expected to be long or elaborate. Some sketches may be more definitive than others; some may be seriously disjunctive; some students may submit more than one sketch. The point of the sketch and preliminary meetings is to provide some faculty guidance for the more independent research that begins over the summer. After the "dissertation chat" the student should submit to their committee a document that describes the work toward formulating a dissertation project and lays out a plan of research for the summer that will lead to a "Topical Examination" by the beginning of the Winter quarter of their fourth year.

At the beginning of the following fall (fourth year), students will again meet with their advisors (optimally all together), to discuss progress and developments over the summer, and make concrete plans for the Topical Examination (to be held later that quarter, or, if necessary, early in the Winter quarter). Those plans will include:

- a tentative timetable
- a determination of the dissertation committee
- the expected character of the materials to be submitted by the student, on which the Examination will be based.

Though the details will vary (depending on the subject matter, the state of the research, individual work habits, and so on), these materials must include a substantial piece of new written work by the student (something on the order of twenty-five double-spaced pages) -- perhaps a draft of a chapter, an exposition of a central argument, a detailed abstract (or outline) of the whole dissertation, or whatever the committee as a whole agrees upon. (It is expected that students will abide by these agreements; but, if there are unanticipated problems, they may petition their advisors and the DGS, in writing, for a revision).

The Topical Examination is an oral examination administered by the members of a student's dissertation committee with the aim of evaluating the viability of the proposed dissertation project and the student's ability to complete it within a reasonable amount of time. Students will be admitted to candidacy for the Ph.D. **only** once they have officially passed their Topical Examination.

Note: students must have scheduled their Topical Examination by the end of their fifteenth quarter (normally the end of the fifth year) to remain in the Program. (**For students admitted before 2010:** students must have scheduled their Topical Examination by the end of their sixth year to remain in the Program.)

Students cannot take their Topical until they have met all other program requirements including passing their foreign language exam or exams. Students must finish their language exams by the end of their fourth year in the program (independently of their status with regard to any other requirements). The Department's normal expectation is that students will have advanced to candidacy (including passing their Topical Examination and their language examination(s)) by the end of third week of their 11th quarter (normally the Winter quarter of their fourth year). Summer funding at the end of the fourth year is contingent on satisfying this expectation.

The Department requires that each student submit a written progress report on his or her progress by the end of the winter quarter of each year, beginning with his or her fourth year in the program. The report should be submitted to the Director of Graduate Studies and (after the Topical) to the student's dissertation committee. In addition to this report, students who have advanced to candidacy must submit a substantial piece of new writing

(25-30 pages in length) to the chair of their dissertation committee. The student will be notified whether or not he or she is making good progress following the annual review meetings in Spring.

It is very much in each student's own interest to be well along with his or her dissertation early in the fifth year, for several related reasons. First, of course, all students are obligated to teach a stand-alone course that year as part of their GAI teaching requirements. This is inevitably time and energy consuming. Second, GAI funding runs out at the end of that year; and some students will not get any more support from the University. And, finally, such sixth-year support as there is from the University is systematically directed to those applicants whose work is not only of the best quality, but also the furthest along (as documented not only by faculty testimonials but also by submitted chapters). Keep in mind also that so-called "dissertation-year fellowships" are awarded competitively on a Division-wide basis, and there are not enough to go around. Though Philosophy students have often done well in this competition, there is no guarantee for the future; and, in any case, not all applications will be successful.

To be sure, supporting oneself without aid, while finishing up a dissertation, is a time-honored academic tradition. But, for most students, the available opportunities are far from deluxe (either inside or outside the University), and it is clearly wise to minimize one's dependence on them, if possible.

NOTE: The Department Coordinator must be informed of the date and time of your Topical Exam, and documentation of the Topical. This is so that department and university can record the exam and admit the student to candidacy. Students need to email the Department Coordinator the names of the members of the committee, the sample chapter on which the Topical examination is based, and the working title of the dissertation.

TEACHING REQUIREMENTS

The Philosophy Department views the development of teaching competence as an integral part of its overall Ph.D. program and takes various steps to train its doctoral students to become excellent teachers of philosophy. It offers different types of teaching opportunities, which gradually prepare its students to teach their own classes. These opportunities are enhanced by the department's pedagogical support through individual faculty mentorship and year round discipline-specific pedagogical events offered through its pedagogy program (<http://philosophy.uchicago.edu/graduate/pedagogy.html>). The first teaching opportunities come in the form of course assistantships. The professor responsible for the course in which a doctoral student serves as an assistant is also responsible for monitoring the doctoral student's teaching progress in that course and preparing a written report of her teaching performance therein. Once a doctoral student has proven herself as a teaching assistant, she is permitted to do stand-alone teaching. In these cases, too, however, the design of the syllabus of the course is developed in consultation with a member of the faculty. Here, too, that faculty member is responsible for further monitoring the doctoral student's teaching progress over the duration of the stand-alone course and preparing a written report of her teaching performance as a solo instructor.

The initial guaranteed funding for five years awarded to students admitted to the program includes a teaching obligation. That obligation standardly takes the form of the student serving four times as an instructor -- usually three times as a course assistant and once as an instructor of a stand-alone course. Normally, students complete one teaching assistantship in their third year, after completion of the Preliminary Essay, and two in their fourth year. Normally, students give their stand-alone course in the fifth year. These first four teaching stints are not further compensated: they are a component of the five-year fellowship package. This four-time teaching obligation is a requirement of the Department of Philosophy's Ph.D. program.

These first four teaching opportunities are built into the basic requirements of the Ph.D. program in order to ensure that students in the program acquire a certain minimum degree of teaching competence. However, the Department views the teaching obligation as a bare minimum with regard to teaching preparation. Doctoral students in the program are encouraged to do more teaching in the later years.

The Department's primary responsibility with respect to doctoral students is to support their work toward the doctoral degree. Teaching preparation is a crucial aspect of that responsibility and any additional teaching must be consistent with timely progress toward the doctoral degree. Accordingly, the policy on teaching beyond the departmental teaching obligation is as follows:

1. In Years 1 & 2, when doctoral students are expected to satisfy their course and logic requirements as well as to formulate topics, find readers, and begin research toward their Preliminary Essays, doctoral students are not given departmental teaching and will not be permitted to accept extra-departmental teaching. The students may, however, complete the Training Course for Writing Interns and Lectors offered by the University of Chicago Writing Program before Autumn of Year 3.
2. In Years 3-5, students may petition the DGS for permission to apply for extra teaching. If, and only if, the following conditions are met, the Department (normally through the DGS) may petition the Dean of Students in the Humanities and the Master of the Humanities Collegiate Division to allow the student to apply for extra-departmental teaching:
 - a. The student is making exemplary progress toward the degree in Philosophy (that is, the student has met every deadline set in the time to degree expectations and the students' work toward the degree is strong).
 - b. There is a sound pedagogic reason to allow the student to seek extra teaching.

3. Students must make their petitions to the DGS by the second week of the term prior to the term in which they hope for extra-GAI teaching—students must make their petitions by the second week of Spring quarter for extra teaching in Autumn, by the second week of Autumn quarter for extra teaching in Winter, and by the second week in Winter quarter for extra teaching in Spring. The Department must make its petition to the DOS and Master of the HCD by the end of the third week of the term prior to the term in which students seek extra-GAI teaching.
4. If the DOS and the HCD approve the Department's petition, and if the students are offered extra teaching appointments, funding for these positions cannot be drawn from the students' fellowship teaching obligation monies.
5. Extra teaching permissions may be withdrawn if students cease to make exemplary progress toward their degrees.

Petitions to the DOS and Master of the HCD will attest to the students' progress and provide the rationale for allowing these students to seek teaching beyond the departmental teaching obligation.

Students do not need departmental permission to seek extra teaching assignments after their fifth year of residence.

Over the course of a doctoral student's career, that student together with the Department builds a teaching dossier, containing the syllabuses of the courses that she has taught, written reports by faculty teaching mentors on those courses, and last but not least, undergraduate evaluations of those courses. When doctoral students prepare to go on the job market, the Department sees to it that one member of the faculty undertakes the responsibility of writing a teaching letter for the student that documents and surveys the highlights of her teaching career at the University of Chicago.

The Department of Philosophy offers a non-credit and not required Pedagogy Program for PhD students. For more information, click here (<http://philosophy.uchicago.edu/graduate/pedagogy.html>).

DISSERTATION AND FINAL ORAL EXAM

Students must inform their committee members of their intention to schedule a defense during the term PRIOR to the term in which they plan to defend. Committee members will consult concerning whether the dissertation is in sufficiently final form to warrant the fixing of a date for the oral examination. Committee members will normally have seen the bulk of the work of the dissertation before making this judgment. Students should consult with their Dissertation Director and other Committee members about the amount of material they will need to see, the state of completion needed, and the time required for this judgment to be made. When the Dissertation Committee judges that the student is ready to defend, the student must coordinate with the Dissertation Committee and the Department Co-ordinator to settle the date and time for the dissertation.

Students should consult with their Committee concerning a precise deadline for submission of the final draft of the dissertation for the defense. This is normally several weeks to a month before the defense date. Students should be aware that, in practice, in order to graduate in a given quarter, the final draft of the dissertation must be submitted to the Dissertation Committee in the first week or two of that quarter, so that the defense can take place prior to the Library's deadline for submitting the final form of the dissertation, leaving time for any necessary revisions noted during the defense. For information regarding the precise deadline by which your approved dissertation must be submitted in a given quarter for the degree to be granted in that same quarter, please click here (<http://www.lib.uchicago.edu/e/phd/deadlines.html>). Note also that an exam cannot be scheduled for at least two weeks after the formal request has been submitted.

The defense must take place at the University of Chicago, preferably in the Autumn, Winter, or Spring quarters. Summer defenses are scheduled at the discretion of the student's Dissertation Committee.

The student and at least one member of the Dissertation Committee must be physically present at the defense.

The student should submit, within the timeline notes, to the Department Coordinator:

- the scheduled date, time, and the members of the committee, and any special room requirements, *at least 3 weeks prior, or as soon as the date and time are settled*
- an electronic copy (.doc or .docx) of a 1-2 paragraph abstract, *at least 3 weeks prior*
- an electronic copy of a 10-page abstract of the dissertation, *at least 2 weeks prior*

The final oral exam is a public event. The examining committee consists of the members of the dissertation committee, along with an appointed member of the Humanities Division faculty who serves as a representative of the Dean's Office. Other faculty and graduate students from the Philosophy Department may and generally do attend. Family members of the doctoral candidate and other members of the general public are also welcome.

If a student passes, then it is customary in the final phase of the exam for the members of the student's dissertation committee to request a final round of revisions to the dissertation. The final granting of the degree is conditional upon the completion of these final revisions. These are to be made promptly after the exam and prior

to the formal submission of the PhD document. After the dissertation is submitted, the student is required to provide each member of the dissertation committee with an electronic version of the document in its final form.

Director of Graduate Studies

- Kevin Davey

Director of Undergraduate Studies

- TBD

PHILOSOPHY COURSES

PHIL 30000. Elementary Logic. 100 Units.

An introduction to the concepts and principles of symbolic logic. We learn the syntax and semantics of truth-functional and first-order quantificational logic, and apply the resultant conceptual framework to the analysis of valid and invalid arguments, the structure of formal languages, and logical relations among sentences of ordinary discourse. Occasionally we will venture into topics in philosophy of language and philosophical logic, but our primary focus is on acquiring a facility with symbolic logic as such.

Instructor(s): G. Schultheis Terms Offered: Autumn

Equivalent Course(s): CHSS 33500, HIPS 20700, PHIL 20100

PHIL 30116. American Pragmatism. 100 Units.

This course is a first introduction to American Pragmatism. We will examine some of the seminal philosophical works of the three most prominent figures in this tradition: Charles Sanders Peirce, William James, and John Dewey. Our main aim will be to extract from these writings the central ideas and principles which give shape to pragmatism as a coherent alternative to the two main schools of modern philosophical thought, empiricism and rationalism. (B) (III)

Instructor(s): A. Vasudevan Terms Offered: Autumn

Equivalent Course(s): PHIL 20116

PHIL 30210. Kant's Ethics. 100 Units.

In this course we will read, write, and think about Kant's ethics. After giving careful attention to the arguments in the Second Critique, portions of the Third Critique, the Groundwork of the Metaphysics of Morals, the Metaphysics of Morals, and several other primary texts, we will conclude by working through some contemporary neo-Kantian moral philosophy, paying close attention to work by Christine Korsgaard, David Velleman, Stephen Engstrom, and others. (A) (I)

Instructor(s): C. Vogler Terms Offered: Autumn

Equivalent Course(s): PHIL 20210, FNDL 20210

PHIL 30506. Philosophy of History: Narrative & Explanation. 100 Units.

This lecture-discussion course will focus on the nature of historical explanation and the role of narrative in providing an understanding of historical events. Among the authors discussed are Edward Gibbon, Immanuel Kant, R. G. Collingwood, Leopold von Ranke, Lord Acton, Fernand Braudel, Carl Gustav Hempel, Arthur Danto, and Hayden White. (III)

Instructor(s): R. Richards Terms Offered: Winter

Equivalent Course(s): CHSS 35110, PHIL 20506, HIST 25110, HIST 35110, HIPS 25110, KNOW 31401

PHIL 30926. Wonder, Wonders, and Knowing. 100 Units.

In wonder is the beginning of philosophy," wrote Aristotle; Descartes also thought that those deficient in wonder were also deficient in knowledge. But the relationship between wonder and inquiry has always been an ambivalent one: too much wonder stupefies rather than stimulates investigation, according to Descartes; Aristotle explicitly excluded wonders as objects of inquiry from natural philosophy. Since the sixteenth century, scientists and scholars have both cultivated and repudiated the passion of wonder; ON the one hand, marvels (or even just anomalies) threaten to subvert the human and natural orders; on the other, the wonder they ignite fuels inquiry into their causes. Wonder is also a passion tinged with the numinous, and miracles have long stood for the inexplicable in religious contexts. This seminar will explore the long, vexed relationship between wonder, knowledge, and belief in the history of philosophy, science, and religion.

Instructor(s): Lorraine Daston Terms Offered: Spring. Course to be taught Spring 2020

Prerequisite(s): Reading knowledge of at least one language besides English, some background in intellectual history. Consent is required for both grads and undergrads. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): SCTL 30926, HIST 35318, KNOW 30926, HIST 25318, CHSS 30936

PHIL 31002. Human Rights: Philosophical Foundations. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 21002, PHIL 21002, INRE 31602, HIST 29319, LLSO 21002, HIST 39319, MAPH 42002, HMRT 31002

PHIL 31108. Time After Physics. 100 Units.

This course provides a historical survey of the philosophy of time. We begin with the problems of change, being and becoming as formulated in Ancient Greece by Parmenides and Zeno, and Aristotle's attempted resolution in the Physics by providing the first formal theory of time. The course then follows theories of time through developments in physics and philosophy up to the present day. Along the way we will take in Descartes' theory of continuous creation, Newton's Absolute Time, Leibniz's and Mach's relational theories, Russell's relational theory, Broad's growing block, Whitehead's epochal theory, McTaggart's A, B and C theories, Prior's tense logic, Belnap's branching time, Einstein's relativity theory and theories of quantum gravity. (B) (II)

Instructor(s): T. Pashby Terms Offered: Autumn

Equivalent Course(s): CHSS 31108, KNOW 21108, HIPS 21108, PHIL 21108, KNOW 31108

PHIL 31214. The Philosophy of Art. 100 Units.

This course is an introduction to the philosophy of aesthetics, with a focus on art and art objects. With respect to art, our questions will include: What is art? What is the point of making art? What is it to appreciate art? (Does discursive knowledge (of the technique, the history of the painting or its subjects, the artist's life, etc.) help or hinder this appreciation?) What is the metaphysical character of art objects (symphonies, paintings, novels, etc.)? What is the ethical status of art? (Were Plato's ethical suspicions about art warranted?) With respect to aesthetics more generally, our questions will include: is beauty in the eye of the beholder? (What is it for something to be in the eye of the beholder?) Does beauty track (or even constitute) scientific truth? If so: why? If not, why have so many mathematicians, physicists, and biologists been preoccupied with the beauty of their theories?

Instructor(s): B. Callard Terms Offered: Winter

Equivalent Course(s): PHIL 21214

PHIL 31414. MAPH Core Course: Contemporary Analytic Philosophy. 100 Units.

This course is designed to provide MAPH students with an introduction to some recent and ongoing debates between philosophers working in the analytic tradition. The course is, however, neither a history nor an overview of analytic philosophy. Instead, we will focus on three different debates, spending about three weeks on each, with topics selected from the general areas of epistemology, metaphysics, and ethics.

Instructor(s): M. Kremer Terms Offered: Autumn

Prerequisite(s): This course is open only to MAPH students. MAPH students who wish to apply to Ph.D. programs in philosophy are strongly urged to take this course.

Equivalent Course(s): MAPH 31414

PHIL 31514. What is so good about virtue? 100 Units.

Virtue is a central concept in many traditions of moral philosophy. What is its relation to notions such as action, practical reason, norm, obligation, goodness, happiness, pleasure? Why not put any of these other notions first in one's ethical thinking? - The answer is to be found in a unique contribution that virtues, as dispositions of the human will, make to what we are, and what we are conscious of being.

Instructor(s): A. Mueller; C. Vogler Terms Offered: Spring

Equivalent Course(s): PHIL 21514

PHIL 31609. Medical Ethics: Central Topics. 100 Units.

Decisions about medical treatment, medical research, and medical policy often have profound moral implications. Taught by a philosopher, two physicians, and a medical lawyer, this course will examine such issues as paternalism, autonomy, assisted suicide, kidney markets, abortion, and research ethics. (A)

Instructor(s): D. Brudney; Staff Terms Offered: Winter

Prerequisite(s): Third or fourth year standing. This course does not meet requirements for the Biological Sciences major.

Note(s): Philosophy majors: this course fulfills the practical philosophy (A) requirement.

Equivalent Course(s): BIOS 29314, HIPS 21609, PHIL 21609, HLTH 21609, BPRO 22612

PHIL 31722. Thomas Aquinas's Commentary on Aristotle's Nicomachean Ethics. 100 Units.

We will read through and discuss the commentary, looking at it both as an interpretation of the Ethics and as a philosophical work in its own right. (A) (IV)

Instructor(s): S. Brock Terms Offered: Spring

Prerequisite(s): For the undergraduates, those who are not Philosophy or Fundamentals majors should seek permission to enroll.

Equivalent Course(s): PHIL 21722, FNDL 21722

PHIL 31723. The Will: Aristotle, Augustine, Aquinas. 100 Units.

Aristotle's approach to ethics is sometimes termed intellectualist, meaning that it has no room for a notion of the will, understood as a principle of human action distinct from intellect or reason. Such a notion, it is said, gained currency only centuries later, at least partly through influences alien to Greek philosophy. St Augustine is often cited as one of the thinkers most responsible for the notion's becoming prevalent. St Thomas Aquinas, however, presents a highly articulated theory of human action that appears to integrate a robust conception of the will, and one heavily indebted to Augustine, into a largely Aristotelian framework. We will read and discuss substantial passages from these three authors bearing on the question of the will, in the hope that seeing them side by side can help to get at what they really mean and what the philosophical merits of their views are. (A) (IV)

Instructor(s): S. Brock Terms Offered: Autumn

Prerequisite(s): Undergraduates should either be Philosophy majors or obtain the consent of the Professor.

Equivalent Course(s): PHIL 21723

PHIL 32401. Modern Logic and the Structure of Knowledge. 100 Units.

In this course, we will examine the various ways in which the concepts and techniques of modern mathematical logic can be utilized to investigate the structure of knowledge. Many of the most well-known results of mathematical logic, such as the incompleteness theorems of Gödel and the Löwenheim-Skolem theorem, illustrate the fundamental limitations of formal systems of logic to fully capture the structure of the semantic models in which truth and validity are assessed. Some philosophers have argued that these results have profound epistemological implications, for instance, that they can be used to ground skeptical claims to the effect that there must be truths that logic and mathematics are powerless to prove. One of the aims of this course is to assess the legitimacy of these epistemological claims. In addition, we will explore the extent to which the central results of mathematical logic can be extended so as to apply to systems of inductive logic, and examine what forms of inductive skepticism may emerge as a result. We will, for example, discuss the epistemological implications of Putnam's diagonalization argument, which shows that, for any Bayesian theory of confirmation based on a definable prior, there must exist hypotheses which, if true, can never be confirmed. (B) (II)

Instructor(s): K. Davey; A. Vasudevan Terms Offered: Winter

Equivalent Course(s): PHIL 22401

PHIL 32709. Introduction to Philosophy of Quantum Mechanics. 100 Units.

In this class we examine some of the conceptual problems associated with quantum mechanics. We will critically discuss some common interpretations of quantum mechanics, such as the Copenhagen interpretation, the many-worlds interpretation and Bohmian mechanics. We will also examine some implications of results in the foundations of quantum theory concerning non-locality, contextuality and realism. (B) (II)

Instructor(s): T. Pashby Terms Offered: Spring

Prerequisite(s): Prior knowledge of quantum mechanics is not required since we begin with an introduction to the formalism. Only familiarity with high school geometry is presupposed but expect to be introduced to other mathematical tools as needed.

Equivalent Course(s): CHSS 32709, HIPS 22709, KNOW 22709, PHIL 22709

PHIL 32961. Social Epistemology. 100 Units.

Traditionally, epistemologists have concerned themselves with the individual: What should I believe? What am I in a position to know? How should my beliefs guide my decision-making? But we can also ask each of these questions about groups. What should we -- the jury, the committee, the scientific community--believe? What can we know? How should our beliefs guide our decision-making? These are some of the questions of social epistemology. Social epistemology also deals with the social dimensions of individual opinion: How should I respond to disagreement with my peers? When should I defer to majority opinion? Are there distinctively epistemic forms of oppression and injustice? If so, what are they like and how might we try to combat them? This class is a broad introduction to social epistemology. (B)

Instructor(s): G. Schultheis Terms Offered: Winter

Equivalent Course(s): PHIL 22961

PHIL 34109. John McDowell's Mind and World. 100 Units.

This course will be an overview and introduction of some of the main themes of the Philosophy of John McDowell, orientated around his book *Mind and World*. We will also read some of his writings on philosophy of perception and disjunctivism dating from before the book, as well as some of his later responses to critics of the book. The course will conclude with a brief glance at the subsequent development of his views, especially in philosophy of perception since *Mind and World*. (B) (III)

Instructor(s): J. Conant Terms Offered: Spring

Prerequisite(s): One previous course in philosophy.

PHIL 34266. Habit, Skill and Virtue. 100 Units.

(I)

Instructor(s): M. Haase Terms Offered: Winter

Equivalent Course(s): PHIL 24266

PHIL 34799. Same-Sex Sexuality: History, Philosophy, and Law. 100 Units.

This new course examines two important historical periods in Western thought during which same-sex conduct and attraction were extensively debated, both politically and philosophically: ancient Greece and Rome, and Victorian and post-Victorian Britain. We will examine the evidence for ancient Greek and Roman attitudes and practices and the normative arguments of the philosophers, especially Plato and the Greek Stoics. Then we leap forward to Victorian Britain, where a newly honest reading of the Greek evidence provided gay men with a rallying point against Christian laws (female same-sex acts were never illegal in Britain), and philosopher Jeremy Bentham provided eloquent arguments for the decriminalization of same-sex acts (fully published only in 2013). We then pause to study a literature that questions whether sexual orientation is a timeless category or a cultural artifact, and a related debate about alleged biological accounts of same-sex desire. Then we move on to the Wolfenden Commission Report of 1957 that recommended the decriminalization of same-sex acts in Britain (with the case of Alan Turing as a central example of what troubled the reformers), along with the related legal-philosophical debate between H. L. A. Hart and Lord Devlin debate (and its roots in the earlier debate about liberty between J. S. Mill and Fitzjames Stephen).

Instructor(s): M. Nussbaum Terms Offered: Spring

Prerequisite(s): Undergraduates may enroll only with the permission of the instructor. Graduate students (Ph.D. and MA) do not need permission. Assessment is by an 8 hour take home final exam, although Ph.D. students and law students may select a paper option.

Equivalent Course(s): PHIL 24799, CLCV 24719, CLAS 34719, RETH 34799, PLSC 34799, PLSC 24799, GNSE 24799, GNSE 34799

PHIL 35707. The Different Senses of Being. 100 Units.

Aristotle states that "being is said in many ways," we shall seek to understand this statement and to study the history of its interpretations. Among the modern authors we shall discuss are Franz Brentano, Martin Heidegger, Ernst Tugendhat, Charles Kahn, Aryeh Kosman, G.E.L. Owen, Stephen Menn, David Charles.

Instructor(s): Irad Kimhi Terms Offered: Winter. This course will be taught winter quarter 2020

Prerequisite(s): Undergrads by permission of instructor only.

Note(s): Graduate seminar open to advanced undergrads

Equivalent Course(s): SCTH 35706

PHIL 37322. Jerusalem and Athens - On the Conflict between Revelation and Philosophy. 100 Units.

I shall discuss the subject on the basis of 4 lectures Leo Strauss gave on "Jerusalem and Athens" and "Reason and Revelation" in the period 1946-1967.

Instructor(s): Heinrich Meier Terms Offered: Spring. course will be taught spring 2020

Note(s): Open to undergrads by consent only. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): PLSC 37322, FNLD 27322, SCTH 37322

PHIL 37500. Kant: Critique of Pure Reason. 100 Units.

This will be a careful reading of what is widely regarded as the greatest work of modern philosophy, Immanuel Kant's Critique of Pure Reason. Our principal aims will be to understand the problems Kant seeks to address and the significance of his famous doctrine of "transcendental idealism". Topics will include: the role of mind in the constitution of experience; the nature of space and time; the relation between self-knowledge and knowledge of objects; how causal claims can be justified by experience; whether free will is possible; the relation between appearance and reality; the possibility of metaphysics. (B) (V)

Instructor(s): M. Boyle Terms Offered: Autumn

Equivalent Course(s): CHSS 37901, FNLD 27800, PHIL 27500, HIPS 25001

PHIL 38203. Hegel's Philosophy of Right. 100 Units.

TBD

Instructor(s): M. Haase Terms Offered: Spring

Equivalent Course(s): FNLD 28204, PHIL 28203

PHIL 39425. Logic for Philosophy. 100 Units.

Key contemporary debates in the philosophical literature often rely on formal tools and techniques that go beyond the material taught in an introductory logic class. A robust understanding of these debates---and, accordingly, the ability to meaningfully engage with a good deal of contemporary philosophy---requires a basic grasp of extensions of standard logic such as modal logic, multi-valued logic, and supervaluations, as well as an appreciation of the key philosophical virtues and vices of these extensions. The goal of this course is to provide students with the required logic literacy. While some basic metalogical results will come into view as the quarter proceeds, the course will primarily focus on the scope (and, perhaps, the limits) of logic as an important tool for philosophical theorizing. (B)

Instructor(s): M. Willer Terms Offered: Winter

Prerequisite(s): Elementary Logic or equivalent. Open for Graduates but no field credit.

Equivalent Course(s): PHIL 29425

PHIL 39600. Intermediate Logic. 100 Units.

This course provides a first introduction to mathematical logic. In this course we will prove the soundness and completeness of deductive systems for both propositional and first-order predicate logic. (B) (II)

Instructor(s): A. Vasudevan Terms Offered: Winter

Prerequisite(s): Elementary Logic (PHIL 20100) or its equivalent.

Equivalent Course(s): PHIL 29400, CHSS 33600, HIPS 20500

PHIL 40120. The Philosophical Investigations. 100 Units.

A close reading of Philosophical Investigations. Topics include: meaning, explanation, understanding, inference, sensation, imagination, intentionality, and the nature of philosophy. Supplementary readings will be drawn from other later writings. (III)

Instructor(s): J. Bridges Terms Offered: Winter

PHIL 42961. Social Epistemology. 100 Units.

This course will introduce some main themes of Social Epistemology, that is the study of knowledge in relation to social institutions and relationships. The course will focus on four topics: epistemic authority; testimony as a source of knowledge; peer disagreement and epistemic conflict; and epistemic justice and injustice. (III)

Instructor(s): M. Kremer Terms Offered: Winter

Note(s): The course is exploratory: the instructor is relatively new to this field and will be learning the material with the students.

PHIL 49701. Topical Workshop. 100 Units.

This is a workshop for 3rd year philosophy graduate students, in which students prepare and workshop materials for their Topical Exam.

Instructor(s): K. Davey Terms Offered: Autumn Winter

Prerequisite(s): A two-quarter (Autumn, Winter) workshop for all and only philosophy graduate students in the relevant years.

PHIL 49702. Revision Workshop. 100 Units.

This is a workshop for 2nd year philosophy graduate students, in which students revise a piece of work to satisfy the PhD program requirements.

Instructor(s): K. Davey Terms Offered: Spring

Prerequisite(s): All and only philosophy graduate students in the relevant years.

PHIL 49900. Reading & Research. 100 Units.

Reading and Research.

Instructor(s): Staff Terms Offered: Autumn Spring Winter

Prerequisite(s): Consent of Instructor.

PHIL 50100. First-Year Seminar. 100 Units.

This course meets in Autumn and Winter quarters.

Instructor(s): D. Finkelstein Terms Offered: Autumn Winter

Prerequisite(s): Enrollment limited to first-year graduate students.

PHIL 50114. Wittgenstein's Tractatus. 100 Units.

This course will provide a close reading of Wittgenstein's only published book. We will place the Tractatus in the context of Frege and Russell's logical works, examining Wittgenstein's debts to and critique of his predecessors.

We will explore both the overall strategy of the book and the contemporary debate about how to read its mysterious, seemingly self-undermining conclusion, and the details of his views (e.g. the "picture theory" of language, the context principle and meaning, the nature of logic, the general form of proposition, the accounts of mathematics, science, and ethics). We will close with a brief discussion of Wittgenstein's later philosophy in relation to the Tractatus. Secondary literature will include selections from Ramsey, Ryle, Anscombe, Geach, Hacker, Conant, Diamond, Goldfarb, Kremer, Ricketts, and Sullivan. (II)

Instructor(s): M. Kremer Terms Offered: Autumn

PHIL 51200. Workshop: Law and Philosophy. 50 Units.

Substantial Writing Requirement. The theme for 2019-20 is "Migration and Citizenship." This is a seminar/workshop many of whose participants are faculty from various related disciplines. It admits approximately ten students. Its aim is to study, each year, a topic that arises in both philosophy and the law and to ask how bringing the two fields together may yield mutual illumination. Most sessions are led by visiting speakers, from either outside institutions or our own faculty, who circulate their papers in advance. The session consists of a brief introduction by the speaker, followed by initial questioning by the two faculty coordinators, followed by general discussion, in which students are given priority. Several sessions involve students only, and are led by the instructors. Students write a 20-25 page seminar paper at the end of the year. The course satisfies the Law School Instructor(s): D. Guillery; M. Nussbaum Terms Offered: Autumn Spring Winter Prerequisite(s): Students are admitted by permission of the two instructors. They should submit a c.v. and a statement (reasons for interest in the course, relevant background in law and/or philosophy) to the instructors by e mail by September 20. Ph.D. students in Philosophy and Political Theory and law students do not need permission.

Note(s): Students must enroll for all three quarters to receive credit.

Equivalent Course(s): HMRT 51301, GNSE 50101, RETH 51301, PLSC 51512

PHIL 51210. Literature of the Shoah, Philosophy in the Shoah. 100 Units.

This seminar will focus on three authors—Charlotte Delbo, Primo Levi, and Zalman Gradowski—each of whom wrote a literary masterpiece about their experiences in Auschwitz. All of their works also raise profound philosophical questions. Delbo, a member of the French Resistance, was deported to Auschwitz and wrote a truly remarkable trilogy, *Auschwitz and After*, that makes use of a variety of literary genres. Levi, deported as a Jew, wrote two classic prose works, *If This is a Man* and *The Drowned and the Saved*. Gradowski, the least well known of these authors, was assigned to the Sonderkommando in Auschwitz. Before being murdered, he wrote two extraordinary manuscripts and buried them under the ashes of Birkenau, where they were discovered after the war. Delbo and Levi both exist in English translation. However, there is not yet a complete translation of Gradowski into English. (His manuscripts were written in Yiddish). We will read the superb French translation of his manuscripts, which is accompanied by an important critical apparatus. Reading knowledge of French is therefore a prerequisite for this course. A central concern of this seminar will be the relation between literary expression and philosophical insight. We will also take up the question of how the Shoah can be represented and what philosophy can say about it. Finally, we will consider writing as a form of ethical and political resistance. We will read these works from several perspectives.

Instructor(s): A. Davidson Terms Offered: Winter

Prerequisite(s): All students interested in enrolling in this course should send an application to jbarbaro@uchicago.edu by 12/13/2019. Applications should be no longer than one page and should include name, email address, phone number, and department or committee. Applicants should briefly describe their background and explain their interest in, and their reasons for applying to, this course.

Equivalent Course(s): HIJD 51210, ITAL 41201, CMLT 51210, RLVC 51210, FREN 41201, DVPR 51210

PHIL 51489. The Philosophy of Elizabeth Anscombe. 100 Units.

One of the most important English philosophers of her generation, G. E. M. Anscombe (1919-2001) was a colorful figure who drove her seven children around in a retired London taxi cab, wore a monocle, smoked cigars, and was fond of swearing in her famously mellifluous voice. She brought Ludwig Wittgenstein to public knowledge with her translations of his later works—crucially, *Philosophical Investigations* (1953). She almost single-handedly invented contemporary action theory with her 1957 monograph, *Intention*, and changed the course of 20th century Anglophone ethics with her seminal essay, "Modern Moral Philosophy" in 1958. She made important, controversial contributions to a wide variety of topics in philosophy of mind, metaphysics, and philosophy of language. In this seminar, we will read, talk, write, and think about Anscombe's philosophical work.

Instructor(s): C. Vogler Terms Offered: Spring

PHIL 51816. How Do We Do Critical Political Philosophy? 100 Units.

Political philosophy is always of its time, yet many political philosophies have tried to be deeply critical of their times. The seminar will investigate different ways to justify such criticism. We will look first at Rousseau and the young Marx, and then turn to recent writers such as Rawls, Walzer, Anderson, Waldron, Horkheimer/Adorno and Jaeggi. (I)

Instructor(s): D. Brudney Terms Offered: Winter

PHIL 51822. Political French Liberalism. 100 Units.

It is often said in contemporary literature that the difference between different types of democracies, like democratic Republic and Constitutional Monarchy, is a superficial one compared to the true relevant divide of modernity between democratic societies and non-democratic societies. The problem with such a divide is that it entails the reduction of Modern Constitutional Monarchies to decorative regimes - in other words to a variety of Republic. The goal of our seminar is to go back to the French post-revolutionary period in order to examine what has been called the « British moment » of the French Intellectual History because of its quest for the foundation of a Liberal and Constitutional Monarchy in France. That period deals with the difficult intellectual challenge for French thinkers to overcome Absolutism in favor of Democracy without rejecting Monarchy as such. The « British moment » of the French Intellectual History represents then a transitional - and mostly forgotten - moment between the old regime and the contemporary French Republic. Such a particular moment of French History can be decomposed into three main sub-moments and opens three main intellectual, historical and philosophical sequences: 1789 and the debates about the role of the Monarch in the context of « Popular Sovereignty ». The important thinkers of that period we are going to read are J. Necker and Madame de Staël (and some of Rousseau).

Instructor(s): R. Moati Terms Offered: Autumn

PHIL 52961. Topics in Epistemology. 100 Units.

This course will cover a variety of topics at the intersection of epistemology and the philosophy of language. Some possible topics: the relationship partial belief and full belief; self-locating belief; what it is to believe (or know) that something might be the case or that something must be the case; probabilities of conditionals and conditional probabilities. (III)

Instructor(s): G. Schultheis Terms Offered: Spring

PHIL 53021. Knowledge of Agency. 100 Units.

The title of this course is ambiguous. It might be thought to refer, either, to the knowledge of which the agent is the object, or, alternatively, to the knowledge of which the agent is the subject. This course will consider how these two forms of knowledge are related to each other. Its guiding conjecture will be that the knowledge of which the agent is the subject is prior in the order of understanding to that of which the agent is the object. After considering Ryle's account of "knowledge-how" and Anscombe's investigation of the reason-requesting question "Why?", we will widen our focus to consider the general tendency of analytic philosophers to theorize human agency in terms of the way that agency is explained, rather than from the standpoint of the agent in the midst of action. This research seminar will presuppose some familiarity with the philosophy of action. (III)

Instructor(s): A. Ford Terms Offered: Winter

PHIL 53003. Explanation. 100 Units.

This course surveys recent work on explanation across philosophical disciplines. Beginning with classic accounts of scientific explanation we will proceed to consider recent work on mechanical explanation, mathematical explanation, causal explanation (particularly in the physical and social sciences), the relation between explanation and understanding, and metaphysical explanation (particularly the idea of explanation as ground). (II)

Instructor(s): T. Pashby Terms Offered: Spring

Equivalent Course(s): KNOW 53003, CHSS 53003

PHIL 53451. Perception and Self-Consciousness. 100 Units.

In the first part of the course, we'll be discussing an argument to the effect that: in order for radical skepticism about empirical knowledge not to be intellectually obligatory, we must understand ourselves as enjoying a very particular kind of self-consciousness. In the remainder of the course, we'll be trying to get into view what an adequate account of that sort of self-consciousness might look like. (III)

Instructor(s): D. Finkelstein Terms Offered: Autumn

PHIL 54602. The Analytic Tradition. 100 Units.

This seminar will be a graduate survey course on the history of the first half of the analytic philosophical tradition. The course will aim to provide an overview of developments within this tradition, starting from the publication of Frege's *Begriffsschrift* in 1879 and reaching up to the publication of Ryle's *The Concept of Mind* in 1949 and the posthumous publication of Wittgenstein's *Philosophical Investigations* in 1953. The course will focus on four aspects of this period in the history of analytic philosophy: (1) its initial founding phase, as inaugurated in the early seminal writings of Gottlob Frege, G. E. Moore, Bertrand Russell, as well as Ludwig Wittgenstein's *Tractatus*; (2) the inheritance and reshaping of some of the central ideas of the founders of analytic philosophy at the hands of the members of the Vienna Circle and their critics, especially as developed in the writings of Otto Neurath, Rudolf Carnap, Moritz Schlick, and W. V. O. Quine, (3) the cross-fertilization of the analytic and Kantian traditions in philosophy and the resulting initiation of a new form of analytic Kantianism, as found in the work of some of the logical positivists, as well as in the writings of some of their main critics, such as C. I. Lewis; (4) the movement of Ordinary Language Philosophy and Oxford Analysis, with a special focus on the writings of Gilbert Ryle and the later Wittgenstein. (V)

Instructor(s): J. Conant Terms Offered: Spring

PHIL 55421. Plato's Timaeus. 100 Units.

The Timaeus is one of Plato's most influential dialogues, and it is also unusual in several respects. The bulk of the work is taken up with a single speech about the origin of the cosmos and the place of human beings within it. The dialogue contains the only discussion in the entire Platonic corpus of numerous topics, including the structure of elemental bodies and the mechanics of sense perception. It is also an important source for understanding Platonic moral psychology, metaphysics, epistemology, and philosophical methodology. In this course, we will study the dialogue closely, focusing on particular topics and sections of the dialogue each week. We will also aim to understand the structure and central argument of the dialogue as a whole.

Instructor(s): E. Fletcher Terms Offered: Spring

PHIL 55110. Reading Religion from a Philosophical Point of View. 100 Units.

We will examine the question of what it means to read religious texts and practices from a philosophical point of view.

Instructor(s): A. Davidson Terms Offered: Autumn

Prerequisite(s): Enrollment requires the consent of the instructor and the course is only open to advanced graduate students who are writing a thesis or preparing comprehensive exams. For more information contact the instructor.

Equivalent Course(s): DVPR 55110

PHIL 55510. Knowing How. 100 Units.

In "Knowing How and Knowing That" (1945) and *The Concept of Mind* (1951), Gilbert Ryle famously argued for a sharp distinction between practical and propositional knowledge. This distinction was settled philosophical orthodoxy for several decades, but has more recently come under attack, beginning with Jason Stanley and Timothy Williamson's "Knowing How" (2001). Responses to their arguments have spawned a rich literature, from replies by such authors such as Alva Noe, and Ian Rumfitt, to Stanley's full presentation of their view in his book *Know How* (2011), to further discussions by authors such as Kieran Setiya, Jennifer Hornsby, Carlotta Pavese, Ellen Fridland, Julia Annas, and many others. This course will delve into this literature, beginning with a careful reading of Ryle, and then turning to a discussion of Stanley and Williamson, their allies, their critics, and recent developments. This is a state of the art seminar on a topic of great current scholarly interest. (III)

Instructor(s): M. Kremer Terms Offered: Spring

PHIL 55912. Aristotle and Marx. 100 Units.

In the preface to the first edition of *Capital*, Marx describes his theoretical standpoint as one from which "the development of the economic formation of society is viewed as a process of natural history." With a view to understanding Marx's theoretical standpoint we will "go back," in Marx's words, "to the great investigator who was the first to analyze the value-form, like so many other forms of thought, society and nature. I mean Aristotle." Aristotle's influence on Marx is well-known and frequently attested by Marx himself. We will explore that influence as it manifests itself in Marx's views on a variety of topics-e.g. on human nature and history; on labor, leisure and the good life; on slavery and freedom; on value and exchange; on property and wealth; on justice; and on alienation.

Instructor(s): A. Ford Terms Offered: Autumn

PHIL 57200. Spinoza's Ethics. 100 Units.

An in-depth study of Benedict Spinoza's major work, the *Ethics*, supplemented by an investigation of some of his early writings and letters. Focus on Spinoza's geometric method, the meaning of and arguments for his substance monism, his doctrine of parallelism, and his account of the good life. (V)

Instructor(s): D. Moerner Terms Offered: Spring

Prerequisite(s): 200: History of PHIL II, or equivalent.

PHIL 57504. Kant's Critique of Judgment. 100 Units.

This will be a study of Kant's third and final Critique, his *Critique of Judgment*. We will attempt to survey the book as a whole, including Kant's influential account of the nature of judgments of beauty and sublimity, as well as his theory of "teleological" judgment and its place in our understanding of the natural world. We will also seek to comprehend and assess Kant's claim that these studies constitute essential contributions to a critique of our cognitive power of judgment, a critique which is crucial to the completion of his larger "critical" project surveying the scope and limits of human cognition as a whole. (V)

Instructor(s): M. Boyle Terms Offered: Winter

Prerequisite(s): Graduate Students from Other Departments Must Have Instructor's Consent to Enroll.

Equivalent Course(s): SETH 57504

PHIL 58010. Philosophy of Language. 100 Units.

A seminar on contemporary issues in philosophy of language and linguistics. The exact topic will be determined closer to the date and in light of students' interests. The list of topics discussed in the past include indexicality, subjectivity, game theory, and conditionals. (II)

Instructor(s): M. Willer Terms Offered: Spring

Equivalent Course(s): LING 58010

PHIL 58205. Fichte on You and I. 100 Units.

(I)

Instructor(s): M. Haase Terms Offered: Winter

PHIL 59950. Workshop: Job Placement. 000 Units.

Course begins in late Spring quarter and continues in the Autumn quarter.

Instructor(s): M. Willer Terms Offered: Autumn Spring

Prerequisite(s): This workshop is open only to PhD Philosophy graduate students planning to go on the job market in the Autumn of 2019/2020. Approval of dissertation committee is required.

PHIL 70000. Advanced Study: Philosophy. 300.00 Units.

Advanced Study: Philosophy



DEPARTMENT OF ROMANCE LANGUAGES AND LITERATURES

Department Website: <http://rll.uchicago.edu>

FACULTY AND STAFF

Professors

- Arnold Davidson
- Frederick A. de Armas
- Daisy Delogu
- Philippe Desan
- Daniel Desormeaux
- Martha Feldman
- Robert Kendrick
- Armando Maggi
- Robert J. Morrissey
- David Nirenberg
- Larry F. Norman
- Thomas Pavel
- François Richard
- H. Justin Steinberg
- Mauricio Tenorio

Associate Professors

- Dain Borges
- Alison James
- Aden Kumler
- Agnes Lugo-Ortiz
- Miguel Martínez
- Rocco Rubini
- Mario Santana
- Jennifer Scappettone
- Jennifer Wild

Assistant Professors

- Larissa Brewer-García
- Maria Anna Mariani
- Danielle Roper
- Victoria Saramago

Postdoctoral Fellow

- Khalid Lyamlahy

Senior Lecturers

- Nadine Di Vito
- Ana María Fiuza Lima
- María C. Lozada
- Alice McLean
- Janet Sedlar
- Veronica Vegna

Full-Time Lecturers

- Marie Berg
- Céline Bordeaux
- Irena Cajkova

- Elga Cremades Cortiella
- Alba Girons Masot
- Sylvie Goutas
- Izas Indacochea
- Céline Legrand
- Verónica Moraga
- Diana Palenzuela
- Rebecca Petrush
- Elizabeth Porretto

Emeritus Faculty

- Paolo Cherchi
- René de Costa
- Peter F. Dembowski
- George Haley
- Elissa Weaver
- Rebecca West

Staff

- Guillaume Beaudin, Department Assistant
- Jennifer Hurtarte, Department Coordinator

PROGRAM OVERVIEW

We offer PhD programs in three areas of study: French and Francophone Studies (<http://rll.uchicago.edu/content/french-and-francophone-studies>), Hispanic and Luso-Brazilian Studies (<http://rll.uchicago.edu/content/hispanic-and-luso-brazilian-studies>), and Italian Studies (<http://rll.uchicago.edu/content/italian-studies>). Our students are supported by faculty members within and outside the department and we encourage students to take advantage of the University's many interdisciplinary programs.

The Joint PhD Program in Theater & Performance Studies (TAPS) allows students to complement their doctoral studies in Romance Languages and Literatures with a program of study in TAPS that reflects their particular training and interests, encompassing both academic and artistic work. Please visit the TAPS graduate program website (<https://arts.uchicago.edu/theater-and-performance-studies/graduate-program/phd-program>) for additional information on the joint program.

SIZE OF THE PROGRAM

There are approximately 5 to 8 students in each year's PhD cohort.

TIME TO COMPLETION

Each program has slightly different requirements but all PhD students in Romance Languages and Literatures should be ABD (All But Dissertation) by the end of their third year. A general program of study summary is below:

- Year 1: Coursework; preparation for language requirement(s); first-year exam (if applicable)
- Year 2: Completion of coursework; fulfill language requirement(s); complete qualifying paper (if applicable); preparation for comprehensive exams
- Year 3: Comprehensive exams; fulfill language requirement (s); complete dissertation proposal and colloquium
- Year 4: Dissertation research and writing; applications for dissertation completion fellowships.
- Year 5: Dissertation research and writing; applications for dissertation completion fellowships; job applications.
- Year 6: Dissertation completion; job applications.

FELLOWSHIPS

Students admitted to doctoral study are typically awarded a six-year fellowship package that includes full tuition, a stipend, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component. The Division of the Humanities has additional information (<http://humanities.uchicago.edu/students/financial-aid>) on the types of financial support available to doctoral students.

MASTERS DEGREE PROGRAM

The University of Chicago offers Masters-level study in Catalan, French, Italian, Portuguese, and Spanish language and culture through the Master of Arts Program in Humanities (<https://maph.uchicago.edu>). In

this one-year program, students build their own curriculum with graduate-level courses in any humanities department (including Romance Languages and Literatures) and complete a thesis with a faculty advisor.

Students may also pursue more thorough language training in the MAPH Two-Year Language Option (<http://rll.uchicago.edu/content/master-arts-program-humanities>) (MAPH TLO). MAPH TLO students begin taking language classes in their first year of the program, weaving language-focused coursework into the traditional MAPH year. Language Option students continue to focus on their language skills in the second year of the program, registering for a minimum of nine total language classes during the two years they are at the University.

APPLICATION

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at <http://humanities.uchicago.edu/students/admissions>.

Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu/page/english-language-requirements>, or call them at (773) 702-7752.

MORE INFORMATION

- Application Requirements (<http://rll.uchicago.edu/content/admission-requirements>)
- Campus Visit (<https://grad.uchicago.edu/admissions/visit-connect>)
- Request More Information (<http://rll.uchicago.edu/content/request-more-information>)

GRADUATE COURSES

Catalan

CATA 31900. Contemporary Catalan Literature. 100 Units.

This course provides a survey of major authors, works, and trends in Catalan literature from the beginning of the twentieth century to the present. We study works representing various literary genres (novel, poetry, short story) and analyze the most important cultural debates of the period.

Note(s): Taught in English.

Equivalent Course(s): SPAN 31910, SPAN 21910, CATA 21900

CATA 33333. Reading Catalan for Research Purposes. 100 Units.

This fast-paced course prepares students to read and do research using texts in Catalan. Students will work on grammar, vocabulary and reading skills, and they will also get introduced to some translation strategies. Part of the texts students will work on will be academic texts in their respective areas of research. This course may fulfill the graduate language requirement in some departments.

Terms Offered: Autumn

Prerequisite(s): Familiarity with a Romance language is highly recommended.

Equivalent Course(s): CATA 23333

CATA 37020. Christianity and Islam in the Western Mediterranean World during the Late Middle Ages. 100 Units.

El curso analizará los contactos mantenidos entre mundo cristiano y mundo islámico en el Mediterráneo bajomedieval, tomando la Corona de Aragón y sus ricas fuentes documentales como observatorio privilegiado. Las particularidades de la Corona de Aragón se compararán con las de otros estados cristianos del Occidente mediterráneo que mantuvieron relaciones sostenidas con los musulmanes. Tras la definición de la naturaleza y de las especificidades de los contactos político-diplomáticos, mercantiles y pirático-corsarios entre Cristiandad e Islam, las clases se focalizarán en la identificación y caracterización de colectivos y personas que actuaron como mediadores lingüísticos y culturales entre ambas realidades. Se determinarán las circunstancias y motivos que permitieron que agentes diplomáticos, mercaderes, mercenarios, piratas-corsarios o cautivos-esclavos vehicularan los contactos. Y se analizarán y compararán las distintas tipologías documentales que son plasmación de todos esos intercambios y contactos culturales y humanos.

Instructor(s): R. Salicrú i Lluch Terms Offered: Spring

Note(s): Taught in Spanish.

Equivalent Course(s): CATA 27020, SPAN 37020, SPAN 27020

CATA 42100. Reading & Research. 100 Units.

Independent study with an individual faculty member.

Terms Offered: Autumn Spring Winter

French

All literature courses taught in French unless otherwise indicated.

FREN 32620. Paris from "Les Misérables" to the Liberation, c. 1830-1950. 100 Units.

Starting with the grim and dysfunctional city described in Victor Hugo's "Les Misérables," the course will examine the history of Paris over the period in which it became viewed as the city par excellence of urban modernity through to the testing times of Nazi occupation and then liberation (c. 1830-1950). As well as focussing on architecture and the built environment, we will examine the political, social, and especially cultural history of the city. A particular feature of the course will be representations of the city-literary (Victor Hugo, Baudelaire, Zola, etc.) and artistic (impressionism and postimpressionism, cubism, surrealism). We will also examine the city's own view of itself through the prism of successive world fairs (expositions universelles).

Instructor(s): C. Jones Terms Offered: Spring

Prerequisite(s): Students taking FREN 22620/32620 must read texts in French.

Equivalent Course(s): HIST 22611, ENST 22611, FREN 22620, HIST 32611

FREN 33333. Reading French for Research Purposes. 100 Units.

This intensive course is designed to take students with a basic knowledge of French to the level of reading proficiency needed for research. To that end, students will work on grammar, vocabulary, and reading strategies. Students will read a range of scholarly texts, a number of which will be directly drawn from their respective areas of research.

Terms Offered: Autumn Spring Summer Winter

Prerequisite(s): FREN 10200 or placement in FREN 10300 for undergraduates. No prerequisite for graduate students, though some prior experience with French is highly recommended.

Equivalent Course(s): FREN 23333

FREN 33335. Racial France. 100 Units.

Over the last two decades, questions of race, racial identity, and racial discrimination have come increasingly to the fore in France, despite (or because of) the country's prevailing rhetoric of colorblind indivisibility. These issues are becoming ever more pressing on a background of intensifying racisms and right-wing populisms in Europe. The purpose of this course is to offer analytical perspectives about these critical tensions and their ripples across the landscape of contemporary French politics. Using readings from a wide variety of fields (among others, anthropology, sociology, literature, philosophy, history, political science, and news media), we will unpack the discourses and lived experiences of race that have shaped the politics of national identity and difference in France since the late 18th century. We will see that the question of 'racial France' has been intimately bound up with the country's history of colonialism and decolonization, with its Republican ideology, with matters of law and government, with questions of citizenship, religion and sexuality, with recent debates on multiculturalism, and with white malaise and resentment stirred by the growth of right-wing extremists. In the course of our examinations, we will also reflect on the specificity of race and racialization in France, and its differences from racecraft in the United States.

Instructor(s): Francois Richard Terms Offered: Autumn. Autumn 2019

Note(s): This course qualifies as a Discovering Anthropology selection for Anthropology Majors.

Equivalent Course(s): ANTH 23335, CRES 23335, ANTH 33335, FREN 23335

FREN 33710. Rousseau's Confessions: Texte et Contexte. 100 Units.

"Les Confessions" de Rousseau est un texte-clé pour comprendre la constitution du moi moderne. Comme personne avant lui, Rousseau décrit tout ce qui est en jeu dans la définition et l'affirmation de soi. "Les Confessions" brossent un vaste tableau critique de la société française à l'Âge des Lumières. Dans ce cours nous lirons cette œuvre fondamentale en dialogue avec les textes théoriques de Rousseau afin de mieux comprendre la place à la fois centrale et paradoxale qu'il occupe dans la pensée des Lumières.

Instructor(s): R. Morrissey Terms Offered: Spring

Prerequisite(s): Open to advanced undergraduates with consent of instructor.

Note(s): Readings in French; discussion in French or English. Papers in French or English, depending on student's field of study.

Equivalent Course(s): FNDL 23710, FREN 23710

FREN 35961. Versailles. 100 Units.

Independent study course

Instructor(s): L. Norman Terms Offered: Spring

Prerequisite(s): Instructor consent

FREN 36019. 19th Century French Poetry in Translation: Tradition and Revolution. 100 Units.

A study of modern French lyric poetry: Tradition and Revolution, Poetry and Politics, the seedbed of Modernism. Desbordes-Valmore, Baudelaire, Mallarme, Verlaine, Rimbaud, Apollinaire. Texts will be read in English with reference to the French originals. Close reading, references to poetry in English, and focus on problems in translation. Students with French should read the poems in the original. Class discussion to be conducted in English; critical essays to be written in English. An extra weekly session will be scheduled for discussion in French, for French-speakers.

Instructor(s): Rosanna Warren Terms Offered: Autumn. Course to be taught autumn 2019

Prerequisite(s): For advanced undergrads seeking French credit: French 20500 or 20503 and at least one literature course taught in French.

Note(s): For graduate students and advanced undergraduates.

Equivalent Course(s): SCTH 26012, ENGL 36012, SCTH 36012, FREN 26019, CMLT 36012

FREN 36333. Introduction à la poésie maghrébine d'expression française. 100 Units.

Depuis son émergence vers le milieu des années 1930, la poésie maghrébine d'expression française a accompagné les bouleversements politiques dans les trois pays du Maghreb et influencé la production romanesque des écrivains maghrébins. Dans les années 1960, des expériences collectives majeures - telles que la revue Souffles au Maroc - placent la poésie au centre du projet de renouvellement culturel dans la région. A la suite de ces dynamiques de groupes, les poètes maghrébins développent des œuvres poétiques ancrées dans leurs expériences individuelles mais désormais ouvertes sur le monde. Des thématiques récurrentes telles que l'exil, l'errance, le désir de révolte et la quête de la liberté mobilisent des techniques poétiques aussi variées que la violence linguistique, le dialogue avec les mythes ou encore l'utilisation des ressources de l'oralité. En étudiant un corpus d'œuvres poétiques choisies du Maroc (Mohammed Khaïr-Eddine, Abdellatif Laâbi, Saïda Menebhi, Abdelkebir Khatibi), de l'Algérie (Jean Sénac, Mohammed Dib, Tahar Djaout, Assia Djebar) et de la Tunisie (Abdelwahab Meddeb, Albert Memmi, Amina Saïd, Tahar Bekri), ce cours présente une introduction générale à la poésie maghrébine d'expression française. On analysera en particulier les formes, les procédés et les motifs poétiques permettant d'appréhender la figure du poète, sa représentation de la patrie, son discours politique ou encore son univers de représentations sensorielles et symboliques.

Instructor(s): K. Lyamlahy Terms Offered: Autumn

Prerequisite(s): FREN 20500 or 20503 for undergraduates

Note(s): Taught in French.

Equivalent Course(s): FREN 26333

FREN 36580. Le rouge et le noir de Stendhal. 100 Units.

Ce cours portera sur *Le Rouge et le noir* de Stendhal vu romancier et comme témoin de son temps. À cheval sur les Lumières et l'époque romantique, à la fois inspiré et hanté par la figure de Napoléon, cet auteur à mille masques ne cesse de se déguiser pour s'imposer aux "Happy few". A travers ses personnages il rêve d'une grandeur qu'il sait impossible et en même temps il formule un commentaire puissant sur son époque.

Instructor(s): R. Morrissey

Note(s): Readings and discussion in French; writing in French or English.

Equivalent Course(s): FREN 26580, FNLD 26580

FREN 37770. Existentialism and Its Literary Legacies. 100 Units.

More than a school of philosophical thought, existentialism was an intellectual movement that dominated French culture in the years following World War II. This course focuses on the literary legacy of existentialism, considering postwar debates over littérature engagée, the intersections of existentialism and the nouveau roman, and the importance of feminist existentialism for women writers. Why did existentialist thinkers turn to forms of literary expression, writing plays and novels? How did they shape the reception of other writers, and how did later writers revisit existentialist concerns? Readings may include texts by Jean-Paul Sartre, Albert Camus, Gabriel Marcel, Simone de Beauvoir, Nathalie Sarraute, Monique Wittig, Georges Perec, and Annie Ernaux.

Instructor(s): A. James Terms Offered: Spring

Prerequisite(s): FREN 20500 or 20503 for undergraduates.

Note(s): Readings and discussion section in French.

Equivalent Course(s): FREN 27770

FREN 39800. Realism in the Novel. 100 Units.

A study of the way in which nineteenth-century narrative prose represents social/cultural conflicts and individual self-reliance.

Instructor(s): T. Pavel Terms Offered: Spring

Note(s): Taught in English, with a one-hour weekly session in French for students seeking French credit.

Equivalent Course(s): CMLT 39801

FREN 42100. Readings And Research: French. 100 Units.

Independent study with an individual faculty member.

Terms Offered: Autumn Spring Winter

Italian

All courses taught in Italian unless otherwise indicated.

ITAL 32000. Dante's Divine Comedy II: Purgatorio. 100 Units.

This course is an intense study of the middle cantica of the "Divine Comedy" and its relationship with Dante's early masterpiece, the "Vita Nuova." The very middleness of the Purgatorio provides Dante the opportunity to explore a variety of problems dealing with our life here, now, on earth: contemporary politics, the relationship between body and soul, poetry and the literary canon, art and imagination, the nature of dreams, and, of course, love and desire. The Purgatorio is also Dante's most original contribution to the imagination of the underworld, equally influenced by new conceptualizations of "merchant time" and by contemporary travel writing and fantastic voyages.

Instructor(s): H.J. Steinberg Terms Offered: Spring

Equivalent Course(s): ITAL 22000, FNLD 27202

ITAL 33001. Machiavelli and Machiavellism. 100 Units.

This course is a comprehensive introduction to Machiavelli's *The Prince* in light of his vast and varied literary corpus and European reception. The course includes discussion of Machiavelli as playwright ("The Mandrake"), fiction writer ("Belfagor," "The Golden Ass"), and historian ("Discourses," "Florentine Histories"). We will also closely investigate the emergence of myths surrounding Machiavelli (Machiavellism and anti-Machiavellism) in Italy (Guicciardini, Botero, Boccacini), France (Bodin and Gentillet), Spain (Ribadeneyra), and Northern Europe (Hobbes, Grotius, Spinoza) during the Counter Reformation and beyond.

Instructor(s): R. Rubini Terms Offered: Autumn

Note(s): Course conducted in English. Those seeking Italian credit will do all work in Italian.

Equivalent Course(s): CMLT 35801, CMLT 25801, FNLD 21603, ITAL 23000

ITAL 33502. Boccaccio's Decameron. 100 Units.

One of the most important and influential works of the middle ages and a lot funnier than the "Divine Comedy." Written in the midst of the social disruption caused by the Black Death (1348), the "Decameron" may have held readers attention for centuries because of its bawdiness, but it is also a profound exploration into the basis of faith and the meaning of death, the status of language, the construction of social hierarchy and social order, and the nature of crisis and historical change. Framed by a storytelling contest between seven young ladies and three young men who have left the city to avoid the plague, the one hundred stories of Boccaccio's "Decameron" form a structural masterpiece that anticipates the Renaissance epics, Chaucer's "Canterbury Tales," and the modern short story. Students will be encouraged to further explore in individual projects the many topics raised by the text, including (and in addition to the themes mentioned above) magic, the visual arts, mercantile culture, travel and discovery, and new religious practices.

Instructor(s): H.J. Steinberg Terms Offered: Winter

Equivalent Course(s): FNLD 21714, ITAL 23502

ITAL 34930. Italy and the Bomb. 100 Units.

A new form of literature, "indispensable for those who know and do not close their eyes" (Elias Canetti) was supposed to have emerged from the contemplation of Hiroshima and Nagasaki harrowing ruins. This new literature was supposed to have been capable of attenuating and reconciling; and it should have been able to engender, with its rhetorical devices, an antidote against the human instinct of destruction. This is the kind of literature that Elsa Morante calls for in her conference *For or Against the Atomic Bomb*, where she chooses to tackle such a "gloomy topic", and yet one that "nobody should dare ignore"-nobody, and especially not a writer. During our course we will read those essays and novels written throughout the Sixties and Seventies that faced the issues posed by the atomic bomb. We will privilege Italian works, but we will also be attuned to the echoes of these themes within a global literary context. Topics to be investigated include the writer's ethical response, the scientist's responsibility and dilemmas, the omnipresence of apocalyptic fear, and the specter of humanity's death drive. Texts by a range of authors, including De Martino, Morante, Moravia, Morselli, Sciascia, Volponi, Anders, Canetti, Oe, and Sebald, will be discussed.

Instructor(s): M. A. Mariani Terms Offered: Autumn

Note(s): Taught in Italian.

Equivalent Course(s): ITAL 24930

ITAL 36000. Gramsci. 100 Units.

In this course we read selections from Antonio Gramsci's *Letters and Prison Notebooks* side by side with their sources. Gramsci's influential interpretations of the Italian Renaissance, Risorgimento, and Fascism are reviewed *testi alla mano* with the aim of reassessing some major turning points in Italian intellectual history. Readings and notions introduced include, for the Renaissance, Petrarch (the cosmopolitan intellectual), Savonarola (the disarmed prophet), Machiavelli (the modern prince), and Guicciardini (the partigiano; for Italys long Risorgimento, Vico (living philology), Cuoco (passive revolution), Manzoni (questione della lingua), Gioberti (clericalism), and De Sanctis (the Man of Guicciardini); and Croce (the anti-Croce) and Pirandello (theater and national-popular literature), for Italy's twentieth century.

Instructor(s): R. Rubini Terms Offered: Autumn

Equivalent Course(s): FNLD 26206, CMLT 26002, CMLT 36002, ITAL 26000

ITAL 36401. Torquato Tasso. 100 Units.

This course investigates the entire corpus of Torquato Tasso, the major Italian poet of the second half of the sixteenth century. We read in detail the "Gerusalemme Liberata" and "Aminta," his two most famous works, in the context of their specific literary genre. We then spend some time examining the intricacies of his vast collection of lyric poetry, including passages from his poem "Il mondo creato." We also consider some of his dialogues in prose that address essential issues of Renaissance culture, such as the theories of love, emblematic expression, and the meaning of friendship.

Instructor(s): A. Maggi Terms Offered: Spring

Note(s): Taught in Italian.

Equivalent Course(s): ITAL 26401, FNDL 26401

ITAL 38702. Italian Comic Theater. 100 Units.

A survey of the history of Italian theater from the Erudite Renaissance Comedy to Goldoni's reform. We will pay particular attention to the tradition of commedia dell'arte (scenarios, stock characters, and plot formation), ancient and medieval influences, evolution and emancipation of female characters, and the question of language. Readings include works by Plautus, Ariosto, Machiavelli, Angelo Beolco (Ruzante), Flaminio Scala, and Goldoni. Toward the end of the course we will consider the legacy of Italian Comedy in relation to the birth of grotesque and realist drama in Pirandello.

Instructor(s): R. Rubini Terms Offered: Winter

Note(s): Taught in English.

Equivalent Course(s): TAPS 38702, TAPS 28702, ITAL 28702

ITAL 42100. Readings And Research: Italian. 100 Units.

Independent study with an individual faculty member.

Terms Offered: Autumn Spring Winter

Portuguese**PORT 34110. Ecocritical Perspectives in Latin American Literature and Film. 100 Units.**

This course provides a survey of ecocritical studies in Latin America. Through novels, poems, and films, we will examine a range of trends and problems posed by Latin American artists concerning environmental issues, from mid-nineteenth century to contemporary literature and film. Readings also include works of ecocritical criticism and theory that have been shaping the field in the past decades.

Instructor(s): V. Saramago Terms Offered: Autumn

Equivalent Course(s): SPAN 34110, SPAN 24110, LACS 34110, LACS 24110, PORT 24110

PORT 35000. The Amazon: Literature, Culture, Environment. 100 Units.

This course proposes a cultural history of the Amazonian region. Through films, novels, visual arts, essays, manifestos, and works on cultural and environmental history, we will explore the history of Amazon from a range of perspectives. We will examine indigenous cultures and epistemologies, extractivist activities, environmental policies, contemporary literature and film, and a global imagination of the Amazon. Authors and projects may include Claudia Andujar, Gaspar de Carvajal, Bernardo Carvalho, Euclides da Cunha, Heitor Dhalia, Ciro Guerra, Milton Hatoum, Susanna Hecht, Alexander von Humboldt, Davi Kopenawa, Ailton Krenak, Chico Mendes, Daniel Mundurucu, Lúcia Sá, Silvano Santos, Candance Slater, Mario Vargas Llosa, Eduardo Viveiros de Castro, Video in the Villages, among others.

Instructor(s): V. Saramago Terms Offered: Spring

Note(s): Taught in English. Materials available in English, Portuguese and Spanish.

Equivalent Course(s): ENST 25000, SPAN 35555, PORT 25000, SPAN 25555, SIGN 26059, LACS 25005, LACS 35005

PORT 42100. Reading And Research. 100 Units.

Independent study with an individual faculty member.

Terms Offered: Autumn Spring Winter

Romance Languages and Literatures**RLT 33020. Journeys Real & Virtual. Travel in the Pre-modern Mediterranean. 100 Units.**

This course focuses on the art of travel in the Medieval and early modern Mediterranean. From the late Middle Ages through the sixteenth century, European pilgrimage to the Holy Land constituted some of the most advanced experiments in representing travel, describing foreign cities, and mapping out territories. Travel accounts represent the core material around which this course is structured along with images and maps in other contexts that such experiments influenced. Course material will span the fields of religion, art, literary, and urban history, encompassing historical geography, cartography, and cultural history. Students will engage directly with the verbal and visual modes that characterize the documentary legacy of mental and physical travel in order to come to terms with the different regimes of knowledge they construct as well as the cognitive demands they place on their audience. Through a comparison of techniques, students will explore the ways in which texts, images, and maps sought to understand human interaction, visualize geographical context, locate history, and make sense of the world beyond their drama of their local experience.

Instructor(s): Niall Atkinson and Karin Krause Terms Offered: Spring

Prerequisite(s): Consent required: Please email Prof. Atkinson or Prof. Krause for request form.

Equivalent Course(s): CDIN 45085, RLVC 45805, HCHR 45805, ARTH 40585, NEHC 30585, HIST 60705

RLLT 37000. Revising Prose. 100 Units.

This course is open to all graduate students and will be run as a workshop. The idea is to work intensely on one piece of scholarship throughout the quarter. Our primary goal will be publication of an article but this is also appropriate for anyone who wants to work on a dissertation proposal or first chapter. We will cover all aspects of professional writing, from abstracts and grant proposals to revising manuscripts after readers' reports.

Instructor(s): A. James Terms Offered: Autumn

Note(s): Taught in English.

Spanish

All literature courses taught in Spanish unless otherwise indicated.

SPAN 32701. Poesía, nación y ciudadanía en el siglo XIX hispanoamericano. 100 Units.

In this course we will explore the relationships between poetry and the constitution of the modern nation-state in nineteenth-century Spanish America. How did poetry partake in the early figuration of national historical imaginaries and in the foundation of their heroic pantheons? Through what languages and aesthetic procedures did it help foster patriotic sentiments and identifications? Was poetry a disciplinary tool for the formation of notions of citizenship and of civic values? Through a series of close textual readings, we will investigate the nature of the entanglement between the poetical and the demands of the political and inquire if there were moments when this relationship proved to be traversed by frictions, if not impossibilities. Authors we may read are José Joaquín Olmedo, Andrés Bello, Esteban Echeverría, José María Heredia, Plácido, Gertrudis Gómez de Avellaneda, José Hernández, José Gautier Benítez, Juana Borrero, Juan Zorrilla de San Martín, and Lola Rodríguez de Tió, among others.

Instructor(s): A. Lugo-Ortiz Terms Offered: Spring

Equivalent Course(s): SPAN 22701, CRES 22701, LACS 32701, LACS 22701

SPAN 33333. Reading Spanish for Research Purposes. 100 Units.

This intensive course is designed to take students with a basic knowledge of Spanish to the level of reading proficiency needed for research. To that end, students will work on grammar, vocabulary, and reading strategies. Students will read a range of scholarly texts, a number of which will be directly drawn from their respective areas of research.

Terms Offered: Spring

Prerequisite(s): One quarter of French or equivalent, placement into SPAN 10200, or an intermediate level of another Romance or classical language.

Equivalent Course(s): SPAN 23333

SPAN 33444. Cultura y Modernidad en América Latina: El caso de José Martí 100 Units.

TBD

Instructor(s): A. Lugo-Ortiz Terms Offered: Spring

Note(s): Taught in Spanish.

SPAN 33950. Latin American Women Perform. 100 Units.

This course examines the ways women from Latin America and the Caribbean wield performance art to engage their social realities and to engage questions of race, gender, and sexuality. How do women both produce and disidentify with constructs of womanhood on stage? How do they use performance to explore the ways histories of genocide, dictatorship, and imperialism shape constructs of gender? We examine the works of performance artists Congelada de Uva, Fomma, Regina Galindo, Nao Bustamante among others.

Instructor(s): D. Roper Terms Offered: Winter

Note(s): Taught in English. Basic knowledge or comprehension of Spanish is strongly recommended.

Equivalent Course(s): LACS 33950, GNSE 33950, TAPS 33950

SPAN 34110. Ecocritical Perspectives in Latin American Literature and Film. 100 Units.

This course provides a survey of of ecocritical studies in Latin America. Through novels, poems, and films, we will examine a range of trends and problems posed by Latin American artists concerning environmental issues, from mid-nineteenth century to contemporary literature and film. Readings also include works of ecocritical criticism and theory that have been shaping the field in the past decades.

Instructor(s): V. Saramago Terms Offered: Autumn

Equivalent Course(s): SPAN 24110, LACS 34110, LACS 24110, PORT 34110, PORT 24110

SPAN 34170. El arte de sobrevivir: la tradición picaresca. 100 Units.

La picaresca es un género de ficción en prosa con una tradición multiseccular en las literaturas en español y con gran influencia en la historia de la novela moderna. La pobreza y la marginalidad convierte a los pícaros y las pícaras que protagonizan estas historias en astutos maestros en el arte de sobrevivir, en héroes pibeysos que luchan contra las determinaciones de la fortuna en una sociedad dinámica, pero sólidamente jerarquizada. Leeremos, por una parte, el "Lazarillo de Tormes," algunas "Novelas ejemplares" de Cervantes, fragmentos de "La pícaro Justina" y del "Guzmán." Por otra, exploraremos los usos del género en algunas novelas modernas escritas en España y Latinoamérica, terminando con ejemplos de ficción televisiva contemporánea. Las estéticas del realismo y la novela moderna, la literatura y la economía, el humor y el lenguaje, el género y la sexualidad, la voz autobiográfica, las subjetividades de la marginalidad, o la relación entre el género picaresco y la historia nacional son algunos de los temas que guiarán nuestras lecturas y discusiones.

Instructor(s): M. Martínez Terms Offered: Winter

Note(s): Taught in Spanish.

Equivalent Course(s): SPAN 24170

SPAN 34400. Cultura y Esclavitud en América Latina. 100 Units.

La esclavitud en las Américas no fue únicamente un sistema de organización socio-económica fundamentado en el trabajo coactivo. Ella también conllevó la gestación de complejas y heterogéneas formas de producción cultural. En el contexto del moderno sistema de la plantación esclavista, esto implicó, en parte, una articulación intelectual y filosófica inédita de las relaciones entre poder, raza y cuerpo así como la producción de sofisticadas formas sincréticas de musicalidad y religiosidad populares y de numerosas representaciones artísticas y literarias en las que se simbolizaron las conflictivas y no pocas veces insólitas relaciones entre amos y esclavos. Enfocándonos especialmente en el caso cubano, en este seminario estudiaremos una serie de textos y artefactos visuales que nos permitirán abordar algunas de las problemáticas clave en la formación de las culturas de la esclavitud en la América Latina: los basamentos intelectuales del régimen (tanto en términos filosóficos como jurídicos) y las críticas de que fue objeto, la dialéctica de subjetividades entre amos/as y esclavos/as y las dinámicas perversas de deseo, género y raza que la constituyeron.

Instructor(s): A. Lugo-Ortiz Terms Offered: Winter

Equivalent Course(s): LACS 34400, HMRT 34401

SPAN 35555. The Amazon: Literature, Culture, Environment. 100 Units.

This course proposes a cultural history of the Amazonian region. Through films, novels, visual arts, essays, manifestos, and works on cultural and environmental history, we will explore the history of Amazon from a range of perspectives. We will examine indigenous cultures and epistemologies, extractivist activities, environmental policies, contemporary literature and film, and a global imagination of the Amazon. Authors and projects may include Claudia Andujar, Gaspar de Carvajal, Bernardo Carvalho, Euclides da Cunha, Heitor Dhalia, Ciro Guerra, Milton Hatoum, Susanna Hecht, Alexander von Humboldt, Davi Kopenawa, Ailton Krenak, Chico Mendes, Daniel Mundurucu, Lúcia Sá, Silvino Santos, Candance Slater, Mario Vargas Llosa, Eduardo Viveiros de Castro, Video in the Villages, among others.

Instructor(s): V. Saramago Terms Offered: Spring

Note(s): Taught in English. Materials available in English, Portuguese and Spanish.

Equivalent Course(s): ENST 25000, PORT 25000, SPAN 25555, SIGN 26059, LACS 25005, LACS 35005, PORT 35000

SPAN 35660. US Imperialism and Cultural Practice in Latin America. 100 Units.

This course examines the ways histories of US intervention in Latin America have been engaged in cultural practice. We assess the history of US intervention by reading primary documents alongside cultural artifacts including film, performance and visual art, song, music, and poetry. The course begins with the Cuban revolution and ends with the ongoing crisis in Puerto Rico.

Instructor(s): D. Roper Terms Offered: Spring

Note(s): Taught in English.

Equivalent Course(s): LACS 25660, LACS 35660, SPAN 25660

SPAN 37020. Christianity and Islam in the Western Mediterranean World during the Late Middle Ages. 100 Units.

El curso analizará los contactos mantenidos entre mundo cristiano y mundo islámico en el Mediterráneo bajomedieval, tomando la Corona de Aragón y sus ricas fuentes documentales como observatorio privilegiado. Las particularidades de la Corona de Aragón se compararán con las de otros estados cristianos del Occidente mediterráneo que mantuvieron relaciones sostenidas con los musulmanes. Tras la definición de la naturaleza y de las especificidades de los contactos político-diplomáticos, mercantiles y pirático-corsarios entre Cristiandad e Islam, las clases se focalizarán en la identificación y caracterización de colectivos y personas que actuaron como mediadores lingüísticos y culturales entre ambas realidades. Se determinarán las circunstancias y motivos que permitieron que agentes diplomáticos, mercaderes, mercenarios, piratas-corsarios o cautivos-esclavos vehicularan los contactos. Y se analizarán y compararán las distintas tipologías documentales que son plasmación de todos esos intercambios y contactos culturales y humanos.

Instructor(s): R. Salicrú i Lluç Terms Offered: Spring

Note(s): Taught in Spanish.

Equivalent Course(s): CATA 27020, SPAN 27020, CATA 37020

SPAN 38800. Problemas críticos y teóricos en el estudio de las culturas ibéricas y latinoamericanas. 100 Units.

En este seminario abordaremos algunas de las problemáticas clave que han estructurado el campo de los estudios literarios hispánicos/ibéricos y latinoamericanos en las pasadas décadas.

Instructor(s): M. Martínez Terms Offered: Autumn

Note(s): Taught in Spanish.

Equivalent Course(s): LACS 38802

SPAN 39220. Espacio y memoria en el cine español. 100 Units.

Through the study of a selection of films and documentaries, this course will provide a critical examination of the history and poetics of cinema in Spain, with particular attention to the relation between the representation of space and the recovery of traumatic memory in contemporary culture.

Instructor(s): M. Santana Terms Offered: Winter

Note(s): Taught in Spanish.

Equivalent Course(s): SPAN 29220

SPAN 42100. Rdgs/Rsch: Spanish. 100 Units.

Independent study with an individual faculty member.

Terms Offered: Autumn Spring Winter



DEPARTMENT OF SLAVIC LANGUAGES AND LITERATURES

Chair

- William Nickell

Professors

- Malynne Sternstein - Director of Undergraduate Studies
- Bozena Shallcross - Director of Graduate Studies

Associate Professors

- William Nickell
- Malynne Sternstein

Senior Lecturers

- Valentina Pichugin

Lecturers

- Mark Baugher
- Erik Houle
- Angelina Ilieva
- Dag Lindskog
- Nada Petkovic
- Maria Yakubovich

Emeritus Faculty

- Howard I. Aronson
- Bill Darden
- Samuel Sandler

Associate Faculty

- Leah Feldman, Comparative Literature
- Eleanora Gilburd, History
- Lenore Grenoble, Linguistics
- Faith Hillis, History
- Matthew Jesse Jackson, Art History & Visual Arts
- Eugene Raikhel, Comparative Human Development
- Olga Solovieva, Comparative Literature
- Anna Torres, Comparative Literature
- Tara Zahra, History

ADMISSIONS

The Slavic Department is not currently accepting applications to the PhD program. Those interested working with our faculty in their PhD studies should apply to PhD programs in related fields such as Comparative Literature, Cinema and Media Studies, and Linguistics.

Students seeking a master's degree may apply to the Master of Arts Program in the Humanities (MAPH). This program has one-year and two-year tracks: both allow students to build their own curriculum with graduate-level courses in any humanities department (including Slavic Languages and Literatures) and complete a thesis with a University of Chicago faculty adviser. The two-year program includes extensive language training, and would allow students to study BCS (Bosnian/Serbian/Croatian), Bulgarian, Czech, Polish, and Russian through the Slavic Department. Further details about the MAPH program are available at <http://maph.uchicago.edu/>

CONTACT INFORMATION

For additional information about the Department of Slavic Languages and Literatures, please see <http://slavic.uchicago.edu/> or e-mail slavic-department@uchicago.edu.

COURSES

The actual offerings for the year will be found on the University Registrar website (<http://registrar.uchicago.edu/>).

BOSNIAN, CROATIAN, AND SERBIAN COURSES

BCSN 31103. Advanced BCS: Literary Readings. 100 Units.

Equivalent Course(s): BCSN 21100

BCSN 31303. (Re)Branding the Balkan City: Comtemp. Belgrade/Sarajevo/Zagreb. 100 Units.

The course will use an urban studies lens to explore the complex history, infrastructure, and transformations of these three cities, now the capitals of Serbia, Bosnia and Hercegovina, and Croatia. Drawing on anthropological theory and ethnography of the city, we will consider processes of urban destruction and renewal, practices of branding spaces and identities, urban life as praxis, art and design movements, architectural histories and styles, metropolitan citizenship, and the broader politics of space. The course is complemented by cultural and historical media, guest speakers, and virtual tours. Classes are held in English. No knowledge of BCS is required. However, this module can fulfill a language requirement or simply further the study of BCS with additional weekly sections, materials, discussions, and presentations in the target language.

Instructor(s): Nada Petkovic Terms Offered: Spring

Equivalent Course(s): REES 31303, REES 21300, BCSN 21300

CZECH COURSES

COURSES

GENERAL SLAVIC COURSES

SLAV 70000. Advanced Study: Slavic Languages & Literatures. 300.00 Units.

Advanced Study: Slavic Languages & Literatures

POLISH COURSES

POLI 30403. Third Year Polish I. 100 Units.

The process of learning in all three quarters of Third-Year Polish is framed by three themes, which most succinctly but aptly characterize Polish life, culture, and history: in the Autumn Quarter—the noble democracy in the Commonwealth of Both Nations, in the Winter Quarter—the fight for independence, and in the Spring Quarter—the newly independent Poland. During the course of the year, students also improve their knowledge of advanced grammar and stylistics. All work in Polish.

Equivalent Course(s): POLI 20403

POLI 30503. Third-Year Polish II. 100 Units.

No course description available

Equivalent Course(s): POLI 20503

POLI 30603. Third-Year Polish-III. 100 Units.

The process of learning in all three quarters of Third-Year Polish is framed by three themes, which most succinctly but aptly characterize Polish life, culture, and history: in the Autumn Quarter—the noble democracy in the Commonwealth of Both Nations, in the Winter Quarter—the fight for independence, and in the Spring Quarter—the newly independent Poland. During the course of the year, students also improve their knowledge of advanced grammar and stylistics. All work in Polish.

Equivalent Course(s): POLI 20603

POLI 39900. Rdg Course: Polish Lit I. 100 Units.**POLI 39901. Reading Course: Polish Lit I. 100 Units.****POLI 39902. Reading Course: Polish Lit II. 100 Units.****POLI 39903. Reading Course: Polish Lit III. 100 Units.**

Advanced Polish studies.

RUSSIAN COURSES

RUSS 30102-30202-30302. Advanced Russian through Media I-II-III.

This course, which is designed for fifth-year students of Russian, covers various aspects of Russian stylistics and discourse grammar in context. It emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in culturally authentic context. Clips from Russian/Soviet films and television news reports are shown and discussed in class. Classes conducted in Russian.

RUSS 30102. Advanced Russian through Media I. 100 Units.

This is a three-quarter sequence designed for fourth- and fifth-year students of Russian. It is also suitable for native speakers of Russian. This sequence covers various aspects of advanced Russian stylistics and discourse grammar in context. This sequence emphasizes the four communicative skills of listening, reading, speaking, and writing in a culturally authentic context. It builds transcultural competence by expanding students' knowledge of the language, culture, history, and daily lives of the Russian-speaking people. Vocabulary building is strongly emphasized. We add to the existing skills and develop our abilities to analyze increasingly complex texts for their meaning: to identify various styles and registers of the Russian language and to provide their neutral equivalents in standard Russian. We also work on developing our abilities to paraphrase, narrate, describe, support opinions, hypothesize, discuss abstract topics, and handle linguistically unfamiliar situations (in spoken and written format). Classes conducted in Russian. Course-specific grammar issues are covered during drill sessions (weekly) and office hours (by appointment). Oral Proficiency Interviews are conducted in the beginning and the end of the course (Autumn and Spring Quarters). Prerequisite(s): Four years of Russian, or equivalent, or consent of instructor.

Instructor(s): Valentina Pichugin Terms Offered: Autumn

Prerequisite(s): Four years of Russian, or equivalent, or consent of instructor.

Equivalent Course(s): RUSS 21302

RUSS 30202. Advanced Russian through Media II. 100 Units.

This course, which is designed for fifth-year students of Russian, covers various aspects of Russian stylistics and discourse grammar in context. It emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in culturally authentic context. Clips from Russian/Soviet films and television news reports are shown and discussed in class. Classes conducted in Russian. Conversation practice is held twice a week.

Instructor(s): Valentina Pichugin Terms Offered: Winter

Prerequisite(s): Four years of Russian, or equivalent, or consent of instructor.

Equivalent Course(s): RUSS 21402

RUSS 30302. Adv Russian Through Media-3. 100 Units.

This course, which is designed for fifth-year students of Russian, covers various aspects of Russian stylistics and discourse grammar in context. It emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in culturally authentic context. Clips from Russian/Soviet films and television news reports are shown and discussed in class. Classes conducted in Russian. Conversation practice is held twice a week.

Equivalent Course(s): RUSS 21502, REES 21502, REES 30302

RUSS 30202. Advanced Russian through Media II. 100 Units.

This course, which is designed for fifth-year students of Russian, covers various aspects of Russian stylistics and discourse grammar in context. It emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in culturally authentic context. Clips from Russian/Soviet films and television news reports are shown and discussed in class. Classes conducted in Russian. Conversation practice is held twice a week.

Instructor(s): Valentina Pichugin Terms Offered: Winter

Prerequisite(s): Four years of Russian, or equivalent, or consent of instructor.

Equivalent Course(s): RUSS 21402

RUSS 30302. Adv Russian Through Media-3. 100 Units.

This course, which is designed for fifth-year students of Russian, covers various aspects of Russian stylistics and discourse grammar in context. It emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in culturally authentic context. Clips from Russian/Soviet films and television news reports are shown and discussed in class. Classes conducted in Russian. Conversation practice is held twice a week.

Equivalent Course(s): RUSS 21502, REES 21502, REES 30302

RUSS 30902. Third-Year Russian through Culture III. 100 Units.

This course, which is intended for third-year students of Russian, covers various aspects of Russian grammar in context and emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in a culturally authentic context. Excerpts from popular Soviet/Russian films and clips from Russian television news reports are shown and discussed in class. Classes conducted in Russian; some aspects of grammar explained in English. Drill practice is held twice a week.

Equivalent Course(s): RUSS 20902

RUSS 33333. Reading Russian for Research Purposes. 100 Units.

This course prepares students to read and do research in Russian. Students will gain a fundamental knowledge of Russian grammar and a basic vocabulary while learning to work intensively with primary and secondary texts in their area of academic interest. Reading Russian for Research Purposes has a limited number of spots available for participation via electronic course sharing, intended for students who are unable to be in Chicago physically for the course.

Equivalent Course(s): RUSS 23333

RUSS 34504. Russian Poetry from Blok to Pasternak. 100 Units.

We will survey the selected poetry of major Russian modernists from 1900 to 1935, including lyrical and narrative genres. Poets covered include: Aleksandr Blok, Andrei Belyi, Viacheslav Ivanov, Nikolai Gumilev, Osip Mandel'shtam, Anna Akhmatova, Velimir Khlebnikov, Vladimir Mayakovsky, Marina Tsvetaeva, Boris Pasternak. In addition to tracing the development of poetic doctrines (from symbolism through acmeism and futurism), we will investigate the close correlations between formal innovation and the changing semantics of Russian poetry. Attention will also be paid to contemporary developments in Western European poetry. Knowledge of Russian required.

Instructor(s): R. Bird, B. Maslov Terms Offered: Winter

Prerequisite(s): Knowledge of Russian required.

Equivalent Course(s): CMLT 34504

RUSS 36900. Strangers to Ourselves: Twentieth Century Émigré Literature from Russia and SE Europe. 100 Units.

Being alienated from myself, as painful as that may be, provides me with that exquisite distance within which perverse pleasure begins, as well as the possibility of my imagining and thinking," writes Julia Kristeva in *Strangers to Ourselves*, the book from which this course takes its title. The authors whose works we are going to examine often alternate between nostalgia and the exhilaration of being set free into the breathless possibilities of new lives. Leaving home does not simply mean movement in space. Separated from the sensory boundaries that defined their old selves, immigrants inhabit a warped, fragmentary, disjointed time. Immigrant writers struggle for breath - speech, language, voice, the very stuff of their craft resounds somewhere else. Join us as we explore the pain, the struggle, the failure and the triumph of emigration and exile. Vladimir Nabokov, Joseph Brodsky, Marina Tsvetaeva, Nina Berberova, Julia Kristeva, Alexander Hemon, Dubravka Ugrešić, Norman Manea, Miroslav Penkov, Ilija Trojanow, Tea Obreht.

Equivalent Course(s): CMLT 36902, SOSL 26900, RUSS 26900, SOSP 36900, CMLT 26902

RUSS 39910. Special Topics in Advanced Russian. 100 Units.

Must complete Advanced Russian through Media or equivalent, or obtain consent of instructor. Class meets for 2 hours each week. We'll work with several topics, all of them are relevant to the general theme of "Geography and Worldview: Russian Perspective". There will be maps, reading materials, several documentaries, clips from TV programs and other media, and feature films. Class meetings will be a combination of group discussions, short presentations, and lectures. Final - one term paper at the end (in English) based on Russian materials.

Instructor(s): Valentina Pichugin Terms Offered: Autumn

Equivalent Course(s): RUSS 29910

RUSS 39911. Special Topics in Advanced Russian. 100 Units.

Must complete Advanced Russian through Media or equivalent, or obtain consent of instructor. Class meets for 2 hours each week. We'll work with several topics, all of them are relevant to the general theme of "Geography and Worldview: Russian Perspective". There will be maps, reading materials, several documentaries, clips from TV programs and other media, and feature films. Class meetings will be a combination of group discussions, short presentations, and lectures. Final - one term paper at the end (in English) based on Russian materials.

Instructor(s): Valentina Pichugin

Equivalent Course(s): RUSS 29911

RUSS 39912. Special Topics in Advanced Russian. 100 Units.

Must complete Advanced Russian through Media or equivalent, or obtain consent of instructor. Class meets for 2 hours each week. We'll work with several topics, all of them are relevant to the general theme of "Geography and Worldview: Russian Perspective". There will be maps, reading materials, several documentaries, clips from TV programs and other media, and feature films. Class meetings will be a combination of group discussions, short presentations, and lectures. Final - one term paper at the end (in English) based on Russian materials.

Instructor(s): Valentina Pichugin Terms Offered: Spring

Equivalent Course(s): RUSS 29912, REES 29912, REES 39912

SOUTH SLAVIC COURSES**SOSL 36900. Strangers to Ourselves: Twentieth Century Émigré Literature from Russia and SE Europe. 100 Units.**

Being alienated from myself, as painful as that may be, provides me with that exquisite distance within which perverse pleasure begins, as well as the possibility of my imagining and thinking," writes Julia Kristeva in *Strangers to Ourselves*, the book from which this course takes its title. The authors whose works we are going to examine often alternate between nostalgia and the exhilaration of being set free into the breathless possibilities of new lives. Leaving home does not simply mean movement in space. Separated from the sensory boundaries that defined their old selves, immigrants inhabit a warped, fragmentary, disjointed time. Immigrant writers struggle for breath - speech, language, voice, the very stuff of their craft resounds somewhere else. Join us as we explore the pain, the struggle, the failure and the triumph of emigration and exile. Vladimir Nabokov, Joseph Brodsky, Marina Tsvetaeva, Nina Berberova, Julia Kristeva, Alexander Hemon, Dubravka Ugrešić, Norman Manea, Miroslav Penkov, Ilija Trojanow, Tea Obreht.

Equivalent Course(s): CMLT 36902, RUSS 36900, SOSL 26900, RUSS 26900, CMLT 26902

RUSSIAN AND EAST EUROPEAN STUDIES COURSES

REES 30011. Gogol. 100 Units.

One of the most enigmatic authors in Russian literature, Nikolai Gogol (1809-1852) was hailed in his own lifetime as the leading prose writer of his generation, a brilliant comic writer, and the innovator of the new school of Russian Naturalism/Realism. Since his death, Gogol has been the subject of ever-greater critical controversy. Reading representative works from each period of Gogol's career, including his Petersburg Tales and *Dead Souls*, we will trace the author's creative development and consider it in relation to his biography and early 19th-century Russian literary and social history. We will work together to identify the characteristic features of Gogol's narrative technique as well as the challenges to interpretation his texts pose. No knowledge of Russian required. Equivalent Course(s): REES 20011

REES 30013. Dostoevsky. 100 Units.

Dostoevsky was an inveterate risk-taker, not only at the bacarat tables of the Grand Casino in Baden-Baden, but in his personal life, his political activities, and his artistic endeavors. This course is intended to investigate his two greatest wagers: on the presence of the divine in the world and on the power of artistic form to convey and articulate this presence. Dostoevsky's wager on form is evident even in his early, relatively conventional texts, like *The Double*. It intensifies after his decade-long sojourn in Siberia, exploding in works like *The Notes from Underground*, which one-and-a-half centuries later remains an aesthetic and philosophical provocation of immense power. The majority of the course will focus on Dostoevsky's later novels. In *Crime and Punishment* Dostoevsky adapts suspense strategies to create a metaphysical thriller, while in *The Demons* he pairs a study of nihilism with the deformation of the novel as a genre. Through close readings of these works we will trace how Dostoevsky's formal experimentation created new ways of exploring realms of existence that traditionally belonged to philosophy and theology. The results were never comfortable or comforting; we will focus on interpreting Dostoevsky's metaphysical provocations.

Equivalent Course(s): REES 20013, FNDL 24612, HUMA 24800, RLIT 39501, RLST 28204

REES 30020. Pale Fire. 100 Units.

This course is an intensive reading of *Pale Fire* by Nabokov.

Equivalent Course(s): FNDL 25311, GNSE 29610, REES 20020, GNSE 39610, ENGL 22817

REES 30302. Adv Russian Through Media-3. 100 Units.

This course, which is designed for fifth-year students of Russian, covers various aspects of Russian stylistics and discourse grammar in context. It emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in culturally authentic context. Clips from Russian/Soviet films and television news reports are shown and discussed in class. Classes conducted in Russian. Conversation practice is held twice a week.

Equivalent Course(s): RUSS 30302, RUSS 21502, REES 21502

REES 31005. Bruno Schulz: An Unfinished Project. 100 Units.

This course examines the fictional, non-fictional and visual oeuvre of the brilliant Polish-Jewish modernist Bruno Schulz who perished in the Holocaust. This year marks not only the 120th anniversary of his birth but also the 70th anniversary of his death in the same town of Drohobycz on the southeastern border of Poland. These dates bracket his relatively short life and are evocative of his several unfinished authorial projects. During the course, we will focus on Schulz's concept of creation through his use of aesthetics of trash and a debased form, kabalistic origins of a fragment, temporality and its movements, myths of province and childhood. We will seek critical answers to his artistic predilection of parochial places and conspiratorial perspectives, masochism, as well as the notion of the moment as both auratic and poetic, in sum, for those components of his world which made him an illusive modernist like no other in his time. The course will be supplemented by the construal of Schulz's legend in contemporary American fiction (Cynthia Ozick, Jonathan Safran Foer, and Nicole Krauss). All readings in English translation.

Instructor(s): B. Shallcross Terms Offered: Autumn

Equivalent Course(s): JWSC 26360

REES 31006. Joseph Conrad's Secret Agent: (In)action, Surveillance, Terrorism. 100 Units.

Course centers on Joseph Conrad's *The Secret Agent: A Simple Tale*. Contemporary critics often consider this novel the archetypal fictional work about terrorism, as it is based on the bomb attack that occurred in Greenwich in 1888. *The Secret Agent* demonstrates, however, much more than its prophetic significance rediscovered after 9/11. Therefore, the course seeks how the novel's relevance stems in equal measure from Conrad's interest in a wider political process and his distrust of state power; in particular, the course explores how these forces determine the individual caught in a confining situation. We read *The Secret Agent* as a political novel, that struggle for solutions defies chaos as well as an imposition of a single ideology or one authorial point of view. Its ambiguities and political antinomies allow for interdisciplinary readings that also present an opportunity to critically overview the established approaches to main Conradian themes. In analyzing the formation of the narrative's ideology we discuss Conrad's historical pessimism that demonstrates with sustained irony how capitalism breeds social injustice that, in turn, breeds anarchism. The class also focuses on how the novel exposes duplicity in staging surveillance, terrorism, as well as adjacent forms of violence or sacrifice. Critical texts include several older but still influential readings (Jameson, Eagleton) and the most recent.

Equivalent Course(s): ENGL 31006, FNDL 21006, ENGL 21006, REES 21006

REES 31303. (Re)Branding the Balkan City: Comtemp. Belgrade/Sarajevo/Zagreb. 100 Units.

The course will use an urban studies lens to explore the complex history, infrastructure, and transformations of these three cities, now the capitals of Serbia, Bosnia and Hercegovina, and Croatia. Drawing on anthropological theory and ethnography of the city, we will consider processes of urban destruction and renewal, practices of branding spaces and identities, urban life as praxis, art and design movements, architectural histories and styles, metropolitan citizenship, and the broader politics of space. The course is complemented by cultural and historical media, guest speakers, and virtual tours. Classes are held in English. No knowledge of BCS is required. However, this module can fulfill a language requirement or simply further the study of BCS with additional weekly sections, materials, discussions, and presentations in the target language.

Instructor(s): Nada Petkovic Terms Offered: Spring

Equivalent Course(s): BCSN 31303, REES 21300, BCSN 21300

REES 32000. Kafka in Prague. 100 Units.

The goal of this course is a thorough treatment of Kafka's literary work in its Central European, more specifically Czech, context. In critical scholarship, Kafka and his work are often alienated from his Prague milieu. The course revisits the Prague of Kafka's time, with particular reference to Josefov (the Jewish ghetto), *Das Prager Deutsch*, and Czech/German/Jewish relations of the prewar and interwar years. We discuss most of Kafka's major prose works within this context and beyond (including *The Castle*, *The Trial*, and the stories published during his lifetime), as well as selected critical approaches to his work.

Instructor(s): Malynne Sternstein Terms Offered: Spring

Equivalent Course(s): REES 22000, GRMN 29600, GRMN 39600

REES 32007. Milan Kundera. 100 Units.

In this course on selected works by Franco-Czech writer Milan Kundera we explore questions of art and kitsch, citizenship pre- and post-communism, and the values of modernity. Texts read include the Czech novels *The Joke*, the film *The Joke* (1969), *Unbearable Lightness of Being*, *The Book of Laughter and Forgetting*, *Farewell Waltz*, and the French novels *Ignorance* and *Festival of Insignificance*, and selected essays from essay collections, *The Art of the Novel*, *Testaments Betrayed*, and *The Curtain*. All texts will be read in their authorized English translations.

Equivalent Course(s): REES 22007, FNDL 22007

REES 33115. Old Church Slavonic. 100 Units.

This course is an introduction to the language of the oldest Slavic texts. It begins with a brief historical overview of the relationship of Old Church Slavonic to Common Slavic and the other Slavic languages. This is followed by a short outline of Old Church Slavonic inflectional morphology. The remainder of the course is spent in the reading and grammatical analysis of original texts in Cyrillic or Cyrillic transcription of the original Glagolitic.

Equivalent Course(s): LING 23115, REES 23115, LING 35100, MDVL 25100

REES 33119. Language/Power/Identity in South East Europe. 100 Units.

This course familiarizes students with the linguistic histories and structures that have served as bases for the formation of modern Balkan ethnic identities and that are being manipulated to shape current and future events. The course is informed by the instructor's thirty years of linguistic research in the Balkans as well as his experience as an adviser for the United Nations Protection Forces in Former Yugoslavia and as a consultant to the Council on Foreign Relations, the International Crisis Group, and other organizations. Course content may vary in response to ongoing current events.

Instructor(s): V. Friedman Terms Offered: Winter

Equivalent Course(s): ANTH 27400, REES 23119, ANTH 37400, LING 27200, HUMA 27400, LING 37200

REES 33137. Narratives Suspense in European/Russian Lit/Film. 100 Units.

This course examines the nature and creation of suspense in literature and film as an introduction to narrative theory. We will question how and why stories are created, as well as what motivates us to continue reading, watching, and listening to stories. We will explore how particular genres (such as detective stories and thrillers) and the mediums of literature and film influence our understanding of suspense and narrative more broadly. Close readings of primary sources will be supplemented with critical and theoretical readings. Literary readings will include work by John Buchan, Arthur Conan Doyle, Feodor Dostoevsky, Graham Greene, Bohumil Hrabal, and J.M. Coetzee. We will also explore Alfred Hitchcock's take on *39 Steps* and the Czech New Wave manifesto film, *Pearls of the Deep*. With theoretical readings by: Roland Barthes, Viktor Shklovsky, Erich Auerbach, Paul Ricoeur, and others.

Equivalent Course(s): ENGL 26901, REES 23137, HUMA 26901, ENGL 46901, CMST 35102, CMLT 22100, CMST 25102

REES 33141. Avant-Garde in East Central Europe. 100 Units.

The avant-gardes of the "other" Europe are the mainstay of this course, which focuses especially, but not exclusively, on the interwar avant-gardes of Austria, Czechoslovakia, Hungary, Poland, Romania, Slovenia, and Yugoslavia. A comparative framework is employed whenever lucrative to comprehend the East/Central European movements in the wider context of the European avant-garde. The course also traces the development and legacy (political and artistic) of these avant-gardes in their contemporary scenes. Plastic, verbal, and performative arts (including film) are studied.

Instructor(s): Malynne Sternstein Terms Offered: Spring

Equivalent Course(s): ARTH 25500, ARTH 35500, REES 23141, CMST 25100, CMST 35100

REES 33154. The Commune: The Making and Breaking of Intentional Communities. 100 Units.

This course will examine attempts to build harmonious sustainable communities in the U.S., U.S.S.R., and around the world. Our content will be historical, philosophical and literary, and will include communal charters, purpose statements, and architectural plans- alongside testimonies to success and memoirs of failure. We will identify patterns and principles that differentiate communal societies from those surrounding them, and consider the relationship of these to the systematic failures and successes of experiments in alternative living. We will also consider the personalities involved: of the founders, stalwart communards, wandering seekers, and troublemakers. We will ask the hard questions that these communities have continually faced, considering how shared space transforms shared beliefs and aspirations, why the latter have been so difficult to sustain, and how the commune could be made to work.

Instructor(s): William Nickell Terms Offered: Winter

Note(s): The first twenty students signing up for the option will also have the opportunity to charter and try out, in groups of four, their own two-week experiments in communal living in an apartment dedicated to the course. Please contact the instructor to be placed on this list.

Equivalent Course(s): REES 23154

REES 33158. Theories of Narrative. 100 Units.

Equivalent Course(s): CLAS 37009, CMLT 38300, CMLT 21300

REES 33812. Russia and the West, 18th-21st Centuries. 100 Units.

There are few problems as enduring and central to Russian history as the question of the West-Russia's most passionate romance and most bitter letdown. In this course we will read and think about Russia from the eighteenth to the twenty-first centuries through the lens of this obsession. We will study the products of Russian interactions with the West: constitutional projects, paintings, scientific and economic thought, the Westernizer-Slavophile controversy, and revolutions. We will consider the presence of European communities in Russia: German and British migrants who filled important niches in state service, trade, and scholarship; Italian sculptors and architects who designed some of Russia's most famous monuments; French expatriates in the wake of the French Revolution; Communist workers and intellectuals, refugees from Nazi Germany; and Western journalists who, in the late Soviet decades, trafficked illicit ideas, texts, and artworks. In the end, we will follow émigré Russians to Europe and the United States and return to present-day Russia to examine the anti-Western turn in its political and cultural discourse.

Instructor(s): E. Gilburd Terms Offered: Autumn

Equivalent Course(s): REES 23812, HIST 33812, HIST 23812

REES 34110. The Soviet Empire. 100 Units.

What kind of empire was the Soviet Union? Focusing on the central idea of Eurasia, we will explore how discourses of gender, sexuality and ethnicity operated under the multinational empire. How did communism shape the state's regulation of the bodies of its citizens? How did genres from the realist novel to experimental film challenge a cohesive patriarchal, Russophone vision of Soviet Eurasia? We will examine how writers and filmmakers in the Caucasus and Central Asia answered Soviet Orientalist imaginaries, working through an interdisciplinary archive drawing literature and film from the Soviet colonial 'periphery' in the Caucasus and Central Asia as well as writings about the hybrid conception of Eurasia across linguistics, anthropology, and geography.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): NEHC 24110, REES 24110, CMLT 34111, CRES 34111, NEHC 34110, CMLT 24111, CRES 24111

REES 34416. Russian Literature in the Composer's Ear. 100 Units.

The dialogue between author and composer in Russia is probably without parallel in other national traditions. This course will examine the musical transposition of literary works in Mussorgsky, Tchaikovsky, Rimsky-Korsakov, Stravinsky, Shostakovich, Prokofiev and Shchedrin. While Stravinsky makes use of oral tradition and folk culture, our other examples will be drawn from classic literary works, primarily from the 19th century. We will integrate close textual readings with focused analyses of the musical pieces, while devoting considerable attention to contexts of composition and reception. Throughout, we will be concerned with cultural and socio-political events from the mid-19th century to the fall of Soviet Union-events that colored the performance and interpretation of these works and often set the tone for their composition as well.

Equivalent Course(s): MUSI 24317, MUSI 34317, REES 24416

REES 34422. Puppet, Robots, and Automaton: Animating the Inanimate Body. 100 Units.

This course explores changing roles of puppets, robots, and automatons in the arts from the nineteenth century through the present. Major themes will include expressions of the anxieties surrounding animate inanimate objects, intersections between the arts and technology, constructed bodies in the context of both modernism and modernity, robots and automatons in utopian and dystopian spaces, and the relationship between puppets, robots, and automatons and developments in media through the past two hundred years. Readings for the course will include historical and contemporary theoretical discourses on these constructed and imagined bodies, literary depictions ranging from folk tales through science fiction narratives, and discussions of puppets, robots, and automatons in the popular press. Beyond these texts, we will investigate how these figures are represented in film, theater, and the visual arts. Although we will consider sources and viewpoints from a broad geographical perspective, we will give special attention to the role of puppets, robots, and automatons in Central and Eastern Europe, where both nineteenth century romantic nationalism and twentieth century socialism fostered a distinctive discursive, technological, and creative space for the constructed, animated body.

Instructor(s): Cheryl Stephenson Terms Offered: Spring

Equivalent Course(s): REES 24422

REES 35003. Philosophy of Architecture. 100 Units.

Readings are culled from Central and East European and Russian theoretical writings on architecture and discussed in both an architecturally specific and broader interdisciplinary context (i.e., philosophies of technology, utopic space, psychogeographies) in this course. We read and look at primary texts and architectural executions (e.g., Karel Teige's 1932 manifesto *Minimum Dwelling*).

Equivalent Course(s): REES 25003

REES 35025. Gender and Translation. 100 Units.

The course will consider translation -- both theory and practice -- in relation to queer studies and gender and women's studies. Authors will include Naomi Seidman, Monique Balbuena, Yevgeniy Fiks, Raquel Salas Rivera, Kate Briggs, and others. For the final essay, students may write a research paper or translation project.

Instructor(s): Anna Elena Torres Terms Offered: Winter

Equivalent Course(s): CMLT 35025, GNSE 35025, CMLT 25025, REES 25025, GNSE 25025

REES 36019. Symbolism and Cinema. 100 Units.

In his 1896 essay on cinema, Russian writer Maxim Gorky described the new medium to "madness or symbolism." The connection between cinema and symbolism was not surprising insofar as symbolism was a dominant aesthetic paradigm throughout Europe at the time. However it does suggest (perhaps surprisingly) that from the very beginning cinema was seen as a means of visualizing the non-rational, uncanny and even invisible. This course examines the relationship between symbolism and cinema with particular attention to French and Russian writings and films. Examining how symbolist aesthetics became applied to the cinematic medium, we will pay particular attention to the resources it provided for conceptualizing the uncanny and the mystical. We will question whether there exists a distinct symbolist tradition in film history and how it relates to notions of poetic or experimental cinema. Films will represent a broad cross-section of European (and some American) cinema, from Jean Epstein to Sergei Eisenstein and Alexander Dovzhenko, and from Stan Brakhage to Andrei Tarkovsky.

Instructor(s): R. Bird

Equivalent Course(s): CMST 25514, CMST 35514, REES 26019

REES 36068. The Underground: Alienation, Mobilization, Resistance. 100 Units.

The ancient and multivalent image of the underground has crystallized over the last two centuries to denote sites of disaffection from-and strategies of resistance to-dominant social, political and cultural systems. We will trace the development of this metaphor from the Underground Railroad in the mid-1800s and the French Resistance during World War II to the Weather Underground in the 1960s-1970s, while also considering it as a literary and artistic concept, from Fyodor Dostoevsky's *Notes from the Underground* and Ellison's *Invisible Man* to Chris Marker's film *La Jetée* and Andrei Tarkovsky's *Stalker*. Alongside with such literary and cinematic tales, drawing theoretical guidance from refuseniks from Henry David Thoreau to Guy Debord, this course investigates how countercultural spaces become-or fail to become-sites of political resistance, and also how dissenting ideologies give rise to countercultural spaces. We ask about the relation between social deviance (the failure to meet social norms, whether willingly or unwittingly) and political resistance, especially in the conditions of late capitalism and neo-colonialism, when countercultural literature, film and music (rock, punk, hip-hop, DIY aesthetics etc.) get absorbed into-and coopted-by-the hegemonic socio-economic system. In closing we will also consider contemporary forms of dissidence-from Pussy Riot to Black Lives Matter-that rely both on the vulnerability of individual bodies and global communication networks.

Instructor(s): Robert Bird Terms Offered: Spring

Equivalent Course(s): CMST 34568, SIGN 26012, CMST 24568, REES 26068

REES 36071. Film and Revolution. 100 Units.

On the fiftieth anniversary of 1968 our course couples the study of revolutionary films (and films about revolution) with seminal readings on revolutionary ideology and on the theory of film and video. The goal will be to articulate the mechanics of revolution and its representation in time-based media. Students will produce a video or videos adapting the rich archive of revolutionary film for today's situation. The films screened will be drawn primarily from Soviet and US cinema, from the 1920s to the present day, proceeding more or less chronologically. We begin with newsreels and a "poetic documentary" by Dziga Vertov; they will be paired with classic readings from revolutionary theory, from Karl Marx and Vladimir Lenin to Fidel Castro and Bill Ayres, and from film theory, including Vertov, Andre Bazin and Jean-Luc Godard. Readings will acquaint students with contemporary assessments of the emancipatory potential of film.

Instructor(s): R.Bird; C.Smith Terms Offered: Spring

Equivalent Course(s): ARTV 28000, CMST 34521, CMST 24521, REES 26071, ARTV 38000

REES 36076. Russian Modernist Poetry. 100 Units.

Equivalent Course(s): REES 26076

REES 36661. The Rise of the Global New Right. 100 Units.

This course traces the intellectual genealogies of the rise of a Global New Right in relation to the contexts of late capitalist neoliberalism, the fall of the Soviet Union, as well as the rise of social media. The course will explore the intertwining political and intellectual histories of the Russian Eurasianist movement, Hungarian Jobbik, the American Traditional Workers Party, the French GRECE, Greek Golden Dawn, and others through their published essays, blogs, vlogs and social media. Perhaps most importantly, the course asks: can we use f-word (fascism) to describe this problem? In order to pose this question we will explore the aesthetic concerns of the New Right in relation to postmodern theory, and the affective politics of nationalism. This course thus frames the rise of a global new right interdisciplinary and comparatively as a historical, geopolitical and aesthetic problem.

Instructor(s): Leah Feldman Terms Offered: Autumn

Equivalent Course(s): CMLT 26660, ENGL 26660, CRES 26660, ENGL 36661, REES 26660, SIGN 26050, CRES 36660, CMLT 36660

REES 37026. Kieslowski: The Decalogue. 100 Units.

In this class, we study the monumental series "The Decalogue" by one of the most influential filmmakers from Poland, Krzysztof Kieślowski. Without mechanically relating the films to the Ten Commandments, Kieślowski explores the relevance of the biblical moral rules to the state of modern man forced to make ethical choices. Each part of the series contests the absolutism of moral axioms through narrative twists and reversals in a wide, universalized sphere. An analysis of the films will be accompanied by readings from Kieślowski's own writings and interviews, including criticism by Žižek, Insdorf, and others.

Equivalent Course(s): REES 27026, CMST 36705, CMST 26705, FNDL 24003

REES 37027. Cinema and the Holocaust. 100 Units.

Focuses on cinematic responses by several leading film directors from East & Central Europe to a central event of 20th century history -- the Holocaust. Nazis began a cinematic documentation of WWII at its onset, positioning cameras in places of actual atrocities. Documentary footage produced was framed by hostile propagandistic schemes; contrary to this 'method', Holocaust feature films are all but a representation of Jewish genocide produced after the actual traumatic events. This class aims at discussing the challenge of representing the Jewish genocide which has often been defined as un-representable. Because of this challenge, Holocaust films raise questions of ethical responsibility for cinematic production & a search for relevant artistic means with which to engage post-traumatic representation. Therefore, among major tropes we will analyze voyeuristic evocation of death & suffering; a truthful representation of violence versus purported necessity of its cinematic aestheticization; intertwined notions of chance & hope as conditions of survival versus hagiographic representation of victims. The main goal is to grasp the potential of cinema for deepening our understanding of the Holocaust, the course simultaneously explores extensive & continuous cinematic production of the genre & its historical development in various European countries, to mention the impact of censorship by official ideologies in the Soviet Union, Poland, Hungary, & Czechoslovakia during the Cold War.

Instructor(s): Bozena Shallcross Terms Offered: Winter

Note(s): Course requirements: film screenings, class participation, reading assignments, one class presentation, and a final project. All readings for the core texts are in English; they can be downloaded from Canvas.

Equivalent Course(s): JWSC 29550, REES 27027, CMST 32507, CMST 22507

REES 37029. Survival. 100 Units.

This course will discuss the complex experience of survival, its forms and conceptualizations. Not limited to a historical discourse, the course's content and scope are framed by modernity, beginning in the 19th century biological notion of survival through its subsequent milestone articulation by Franz Rosenzweig and concluding in the selective reading from a plethora of post-Holocaust writings. What does it mean to survive? According to those who during WWII lived on the narrow threshold between life and death and survived its precariousness, survival depended on diverse rational and irrational factors such as faith (extrinsic or intrinsic), health, age, wealth, egoism, coincidence, hope, and luck that often verge on the miraculous; thus, no discursive centrality would be ascribed to any of the forms of survival under our investigation. During the course we will become familiar with historical, philosophical, and biographical accounts of survival.

Instructor(s): Bozena Shallcross Terms Offered: Autumn

Equivalent Course(s): JWSC 27029, REES 27029

REES 39009. Balkan Folklore. 100 Units.

Vampires, fire-breathing dragons, vengeful mountain nymphs. 7/8 and other uneven dance beats, heart-rending laments, and a living epic tradition. This course is an overview of Balkan folklore from historical, political, and anthropological perspectives. We seek to understand folk tradition as a dynamic process and consider the function of different folklore genres in the imagining and maintenance of community and the socialization of the individual. We also experience this living tradition firsthand through visits of a Chicago-based folk dance ensemble, "Balkan Dance."

Instructor(s): A. Ilieva Terms Offered: Winter

Equivalent Course(s): CMLT 33301, NEHC 30568, CMLT 23301, REES 29009, NEHC 20568, ANTH 35908, ANTH 25908

REES 39010. 20th Century Russian & South East European Emigre Literature. 100 Units.

Being alienated from myself, as painful as that may be, provides me with that exquisite distance within which perverse pleasure begins, as well as the possibility of my imagining and thinking," writes Julia Kristeva in "Strangers to Ourselves," the book from which this course takes its title. The authors whose works we are going to examine often alternate between nostalgia and the exhilaration of being set free into the breathless possibilities of new lives. Leaving home does not simply mean movement in space. Separated from the sensory boundaries that defined their old selves, immigrants inhabit a warped, fragmentary, disjointed time. Immigrant writers struggle for breath-speech, language, voice, the very stuff of their craft resounds somewhere else. Join us as we explore the pain, the struggle, the failure, and the triumph of emigration and exile. Vladimir Nabokov, Joseph Brodsky, Marina Tsvetaeva, Nina Berberova, Julia Kristeva, Alexander Hemon, Dubravka Ugrešić, Norman Manea, Miroslav Penkov, Ilija Trojanow, Tea Obreht.

Instructor(s): Angelina Ilieva Terms Offered: Autumn

Equivalent Course(s): CMLT 36912, CMLT 26912, REES 29010

REES 39012. Returning the Gaze: The Balkans and Western Europe. 100 Units.

This course investigates the complex relationship between South East European self-representations and the imagined Western "gaze" for whose benefit the nations stage their quest for identity and their aspirations for recognition. We also think about differing models of masculinity, the figure of the gypsy as a metaphor for the national self in relation to the West, and the myths Balkans tell about themselves. We conclude by considering the role that the imperative to belong to Western Europe played in the Yugoslav wars of succession. Some possible texts/films are Ivo Andrić, *Bosnian Chronicle*; Aleko Konstantinov, *Baj Ganyo*; Emir Kusturica, *Underground*; and Milcho Manchevski, *Before the Rain*.

Instructor(s): A. Ilieva Terms Offered: Winter

Equivalent Course(s): CMLT 33201, NEHC 20885, REES 29012, NEHC 30885, CMLT 23201

REES 39013. The Burden of History: The Nation and Its Lost Paradise. 100 Units.

What makes it possible for the imagined communities called nations to command the emotional attachments that they do? This course considers some possible answers to Benedict Anderson's question on the basis of material from the Balkans. We will examine the transformation of the scenario of paradise, loss, and redemption into a template for a national identity narrative through which South East European nations retell their Ottoman past. With the help of Žižek's theory of the subject as constituted by trauma and Kant's notion of the sublime, we will contemplate the national fixation on the trauma of loss and the dynamic between victimhood and sublimity.

Instructor(s): A. Ilieva Terms Offered: Autumn

Equivalent Course(s): CMLT 33401, REES 29013, NEHC 20573, NEHC 30573, HIST 24005, CMLT 23401, HIST 34005

REES 39021. The Shadows of Living Things: The Writings of Mikhail Bulgakov. 100 Units.

What would your good do if evil did not exist, and what would the earth look like if all the shadows disappeared? After all, shadows are cast by things and people.... Do you want to strip the earth of all the trees and living things just because of your fantasy of enjoying naked light?" asks the Devil. Mikhail Bulgakov worked on his novel *The Master and Margarita* throughout most of his writing career, in Stalin's Moscow. Bulgakov destroyed his manuscript, re-created it from memory, and reworked it feverishly even as his body was failing him in his battle with death. The result is an intense contemplation on the nature of good and evil, on the role of art and the ethical duty of the artist, but also a dazzling world of magic, witches, and romantic love, and an irresistible seduction into the comedic. Laughter, as shadow and light, as the subversive weapon but also as power's whip, grounds human relation to both good and evil. Brief excursions to other texts that help us better understand *Master and Margarita*.

Equivalent Course(s): REES 29021, FNDL 29020

REES 39023. Returning the Gaze: The West and the Rest. 100 Units.

Aware of being observed. And judged. Inferior... Abject... Angry... Proud... This course provides insight into identity dynamics between the "West," as the center of economic power and self-proclaimed normative humanity, and the "Rest," as the poor, backward, volatile periphery. We investigate the relationship between South East European self-representations and the imagined Western gaze. Inherent in the act of looking at oneself through the eyes of another is the privileging of that other's standard. We will contemplate the responses to this existential position of identifying symbolically with a normative site outside of oneself-self-consciousness, defiance, arrogance, self-exoticization-and consider how these responses have been incorporated in the texture of the national, gender, and social identities in the region. Orhan Pamuk, Ivo Andrić, Nikos Kazantzakis, Aleko Konstantinov, Emir Kusturica, Milcho Manchevski.

Instructor(s): Angelina Ilieva Terms Offered: Autumn

Equivalent Course(s): REES 29023, HIST 23609, CMLT 39023, CMLT 29023, HIST 33609, NEHC 39023, NEHC 29023

REES 39024. States of Surveillance. 100 Units.

What does it feel to be watched and listened to all the time? Literary and cinematic works give us a glimpse into the experience of living under surveillance and explore the human effects of surveillance - the fraying of intimacy, fracturing sense of self, testing the limits of what it means to be human. Works from the former Soviet Union (Solzhenitsyn, Abram Tertz, Andrey Zvyagintsev), former Yugoslavia (Ivo Andrić, Danilo Kiš, Dušan Kovačević), Romania (Norman Manea, Cristian Mungiu), Bulgaria (Valeri Petrov), and Albania (Ismail Kadare).

Instructor(s): Angelina Ilieva Terms Offered: Autumn

Equivalent Course(s): REES 29024, CMLT 39024, CMLT 29024

REES 39700. Reading/Research. 100 Units.

This is a specially designed course not normally offered as part of the curriculum that is arranged between a student and a faculty member.

Instructor(s): TBA. Terms Offered: Autumn, Spring, Winter

Note(s): Requires the consent of the instructor.

REES 39800. Reading/Research: Czech. 100 Units.**REES 39912. Special Topics in Advanced Russian. 100 Units.**

Must complete Advanced Russian through Media or equivalent, or obtain consent of instructor. Class meets for 2 hours each week. We'll work with several topics, all of them are relevant to the general theme of "Geography and Worldview: Russian Perspective". There will be maps, reading materials, several documentaries, clips from TV programs and other media, and feature films. Class meetings will be a combination of group discussions, short presentations, and lectures. Final - one term paper at the end (in English) based on Russian materials.

Instructor(s): Valentina Pichugin Terms Offered: Spring

Equivalent Course(s): RUSS 39912, RUSS 29912, REES 29912

REES 43902. Colloquium: Stalinism. 100 Units.

We will explore Stalin as a personality and Stalinism as a political order, an economy, a cultural system, a set of beliefs and rituals, and a way of life. Topics include the dictator, his entourage, and his cult; decision making and the new elite; industrialization, collectivization, and the economy of shortages; revolution and conservatism; nationalism, internationalism, and ethnic cleansing; political terror, mass murder, and the Gulag; communal apartments, survival strategies, and intimate life; media and the socialist-realist dreamworld; legacies and historical consciousness. Readings include classics in the field and newest hits as well as works of fiction.

Instructor(s): E. Gilburd Terms Offered: Spring

Prerequisite(s): Advanced undergraduates with consent of instructor and prior coursework on 20th-C Russia or Russian Civ.

Equivalent Course(s): HIST 43902

REES 43903. The Art of Healing: Medical Aesthetics in Russia & the U.S. 100 Units.

What makes a medical treatment look like it will work? What makes us feel that we are receiving good care, or that we can be cured? How are these responses shaped by the rhetorical practices of doctors, researchers, and pharmaceutical companies, by the physical appearance of hospitals, offices, and instruments, or by smells and sounds? Why does the color of a pill influence its effectiveness, and how can placebos achieve what less inert medication cannot? How do predictions of success or failure effect treatment responses? When does technology instill confidence, and when does it produce a sense of degradation? Is the doctor seen primarily as a caregiver or a scientist, and how does this affect treatment outcomes? What is the aesthetic experience of being "sick"? In this course we will consider these problems from the vantage points of a medical professional and a cultural historian, focusing on material from the United States and Soviet/post-Soviet Russia. Our methodology will combine techniques of aesthetic analysis with those of medical anthropology, history and practice.

Equivalent Course(s): HIST 45100, CDIN 43903

REES 45005. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring or minoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): MAPH 33700, CMLT 32500, CMST 28600, CMST 48600, ARTH 38600, ENGL 29600, REES 25005, ARTV 20003, CMLT 22500, ARTH 28600, ENGL 48900, MAAD 18600

REES 47000. Time and Memory. 100 Units.

At the beginning of the 20th century moderns and modernists announced their break with the past and launched various artistic, philosophical, political, and social experiments that claimed to construct society and the individual anew. The machine, speed, technology, and the future were the watchwords of Futurists and other modernist groups. Revolutionary transformation on all fronts was the way forward. In the same period advances in science and technology radically changed the horizon of possibility. Yet other important artists and thinkers offered the contrasting view that the past remains alive in the present-both in individuals and in human cultures. Memory was key to the future. This seminar focuses on the second tendency by examining the work of three theorists-Henri Bergson, Walter Benjamin, Victor Shklovsky-and three literary authors-Victor Shklovsky, Virginia Woolf, and Osip Mandelstam.

Instructor(s): Harriet Murav Terms Offered: Spring



DEPARTMENT OF SOUTH ASIAN LANGUAGES AND CIVILIZATIONS

Chair

- Whitney Cox

Professors

- Muzaffar Alam - Director of Graduate Studies
- Dipesh Chakrabarty
- Wendy Doniger
- Ulrike Stark
- Gary Tubb

Associate Professors

- Whitney Cox
- Thibaut d'Hubert
- Sascha Ebeling
- Rochona Majumdar

Assistant Professors

- Tyler Williams - Director of Undergraduate Studies

Visiting Professors

- E. Annamalai

Associated Faculty

- Daniel A. Arnold (Divinity School)
- Christian K. Wedemeyer (Divinity School)

Senior Lecturers

- Elena Bashir

Lecturers

- Mandira Bhaduri
- Jason Grunebaum
- Sujata Mahajan
- Karma T. Ngodup

Emeritus Faculty

- Ronald B. Inden
- Colin P. Masica
- C. M. Naim
- Clinton B. Seely
- Norman H. Zide

THE DEPARTMENT

The Department of South Asian Languages and Civilizations is a multidisciplinary department comprised of faculty with expertise in the languages, literatures, histories, philosophies, and religions of South Asia. The examination of South Asian texts, broadly defined, is the guiding principle of our Ph.D. degree, and the dissertation itself. This involves acquaintance with a wide range of South Asian texts and their historical contexts, and theoretical reflection on the conditions of understanding and interpreting these texts. These goals are met through departmental seminars and advanced language courses, which lead up to the dissertation project.

The Department admits applications only for the Ph.D. degree, although graduate students in the doctoral program may receive an M.A. degree in the course of their work toward the Ph.D. Students admitted to the doctoral program are awarded a six-year fellowship package that includes full tuition, academic year stipends, stipends for some summers, and medical insurance. Experience in teaching positions is a required part of the

program, and students are given opportunities to teach at several levels in both language courses and other courses.

Students seeking a terminal master's degree should apply to the Master of Arts Program in the Humanities (MAPH, as either a three-quarter program of interdisciplinary study or - as is often more attractive to students interested in South Asia - in the MAPH two-year Language Intensive Option). MAPH students often take classes with students in the Ph.D. programs. Further details about the MAPH program are available at <http://maph.uchicago.edu/>

THE DEGREE OF DOCTOR OF PHILOSOPHY

Doctoral students in South Asian Languages and Civilizations must complete a minimum of 18 courses, which will include the required language courses, the three required departmental seminars, and other courses relevant to the student's chosen specialty. Under some conditions, students may receive credit for earlier course work done in a higher degree program at another university. For details of the course requirements, see the Department webpages.

Before beginning work on the doctoral dissertation, Ph.D. students must also fulfill the following requirements:

- Meet general language requirements
- Complete the three required departmental seminars
- Receive a passing grade on the two qualifying papers
- Formulate two reading lists and pass an oral examination based on them
- Write and defend a dissertation proposal

The languages in which the department offers concentrations are Bangla, Hindi, Indo-Persian, Marathi, Sanskrit, Tamil, Tibetan, and Urdu. Persian and Arabic are also available through the Department of Near Eastern Languages and Civilizations. Students must meet specified standards in three languages:

- The South Asian language of concentration (the major language)
- A second South Asian language relevant to the student's program of study (the minor language)
- A third language of scholarship (e.g. French, German, Hindi, Japanese)

Requirements for proficiency levels and coursework are explained in detail on the Department webpages.

Competence in South Asian languages and civilizations is demonstrated as much by close familiarity with South Asian texts as by a broad knowledge of the plurality of South Asian practices and traditions. To this end, the Ph.D. program includes three required departmental seminars, which are offered over a two-year cycle and must be completed in the first two years. The seminars include two on research themes and one on South Asia as a unit of study.

In each of the first two years of their programs, students are required to submit a qualifying paper on a subject agreed upon with a faculty member. The papers are designed to demonstrate, in addition to general scholarly competence, the ability to deal with secondary sources in the first year, and with primary sources in the second year.

Following the completion of the two qualifying papers, students compose, under the supervision of faculty members, two reading lists, and prepare for an oral examination on each of the lists, one of which one will deal with a major area of study and the other with a substantially different area.

Upon successful completion of the oral examinations, students write and defend a detailed dissertation proposal, prepared under the supervision of the chair of the proposed dissertation committee. Dissertation proposals are defended orally before the entire department.

The completed dissertation is defended before the dissertation committee, which ordinarily consists of three faculty members, with a member of the SALC faculty as chair, in an oral defense presided over by the departmental chair. At the discretion of the dissertation chairperson, a fourth member may be added to the dissertation committee. Further details about the composition of the dissertation committee are available on the departmental website.

Time to candidacy for the Ph.D. degree, marked by the successful defense of the dissertation proposal, is expected to be within four years. The PhD degree in SALC should be completed within eight years.

APPLICATION AND ADMISSION

Completed applications for admission and aid, along with all supporting materials, are due in mid-December for the academic year that starts in the following autumn.

Students whose first language is not English must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about these tests may be obtained from the Educational Testing Service, Princeton, NJ 08540.

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/prospective/#admissions>.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

FURTHER INFORMATION

The SALC Department webpages at <http://salc.uchicago.edu> provide detailed information on language programs, faculty specialties, degree requirements, teaching opportunities, sources of funding, fellowships for language study and for pre-dissertation research and overseas dissertation research, and many other resources.

MALAYAMAN COURSES

TELEGU COURSES

TLGU 30300. Third-Year Telugu III. 100 Units.

Instructor(s): V. Narayana Rao

Prerequisite(s): TLGU 20300 or comparable level of language skills

TLGU 30600. Classical Telugu III. 100 Units.

Instructor(s): V. Narayana Rao

Prerequisite(s): At least two years of Sanskrit and knowledge of Telugu script

PANJABI COURSES

BANGLA COURSES

BANG 30100-30200-30300. Third-Year Bangla (Bengali) I-II-III.

When joining this course the student is expected to demonstrate the ability to narrate in all time frames of the language. The student should be able to provide a simple though articulate discourse on familiar topics and subjects directly related to the his/her interests. He/She will learn to provide a full account of events and to use appropriately complex sentences in Bangla. We will also focus on some aspects of the technical language pertaining to various domains. The student will be invited to discuss orally on written material studied in class and at home, and he/she will have to produce two to three pages long essays on a given topic. Systematic introductions to a variety of registers and literary idioms (19th century Sadhu Bhasha, dialects, etc.) will also be provided. By the end of the spring quarter the student will have the necessary tools to expand significantly his/her abilities in order to reach the superior level.

BANG 30100. Third-Year Bangla (Bengali) I. 100 Units.

When joining this course the student is expected to demonstrate the ability to narrate in all time frames of the language. The student should be able to provide a simple though articulate discourse on familiar topics and subjects directly related to the his/her interests. He/She will learn to provide a full account of events and to use appropriately complex sentences in Bangla. We will also focus on some aspects of the technical language pertaining to various domains. The student will be invited to discuss orally on written material studied in class and at home, and he/she will have to produce two to three pages long essays on a given topic. Systematic introductions to a variety of registers and literary idioms (19th century Sadhu Bhasha, dialects, etc.) will also be provided. By the end of the spring quarter the student will have the necessary tools to expand significantly his/her abilities in order to reach the superior level.

Instructor(s): T. d'Hubert Terms Offered: Autumn

Prerequisite(s): Second year Bangla or comparable level of language skills

BANG 30200. Third-Year Bangla-2. 100 Units.

When joining this course the student is expected to demonstrate the ability to narrate in all time frames of the language. The student should be able to provide a simple though articulate discourse on familiar topics and subjects directly related to the his/her interests. He/She will learn to provide a full account of events and to use appropriately complex sentences in Bangla. We will also focus on some aspects of the technical language pertaining to various domains. The student will be invited to discuss orally on written material studied in class and at home, and he/she will have to produce two to three pages long essays on a given topic. Systematic introductions to a variety of registers and literary idioms (19th century Sadhu Bhasha, dialects, etc.) will also be provided. By the end of the spring quarter the student will have the necessary tools to expand significantly his/her abilities in order to reach the superior level.

Instructor(s): T. d'Hubert Terms Offered: Winter

Prerequisite(s): BANG 30100 or comparable level of language skills

BANG 30300. Third-Year Bangla-3. 100 Units.

When joining this course the student is expected to demonstrate the ability to narrate in all time frames of the language. The student should be able to provide a simple though articulate discourse on familiar topics and subjects directly related to the his/her interests. He/She will learn to provide a full account of events and to use appropriately complex sentences in Bangla. We will also focus on some aspects of the technical language pertaining to various domains. The student will be invited to discuss orally on written material studied in class and at home, and he/she will have to produce two to three pages long essays on a given topic. Systematic introductions to a variety of registers and literary idioms (19th century Sadhu Bhasha, dialects, etc.) will also be provided. By the end of the spring quarter the student will have the necessary tools to expand significantly his/her abilities in order to reach the superior level.

Instructor(s): T. d'Hubert Terms Offered: Spring

Prerequisite(s): BANG 30200 or comparable level of language skills

BANG 30200. Third-Year Bangla-2. 100 Units.

When joining this course the student is expected to demonstrate the ability to narrate in all time frames of the language. The student should be able to provide a simple though articulate discourse on familiar topics and subjects directly related to the his/her interests. He/She will learn to provide a full account of events and to use appropriately complex sentences in Bangla. We will also focus on some aspects of the technical language pertaining to various domains. The student will be invited to discuss orally on written material studied in class and at home, and he/she will have to produce two to three pages long essays on a given topic. Systematic introductions to a variety of registers and literary idioms (19th century Sadhu Bhasha, dialects, etc.) will also be provided. By the end of the spring quarter the student will have the necessary tools to expand significantly his/her abilities in order to reach the superior level.

Instructor(s): T. d'Hubert Terms Offered: Winter

Prerequisite(s): BANG 30100 or comparable level of language skills

BANG 30300. Third-Year Bangla-3. 100 Units.

When joining this course the student is expected to demonstrate the ability to narrate in all time frames of the language. The student should be able to provide a simple though articulate discourse on familiar topics and subjects directly related to the his/her interests. He/She will learn to provide a full account of events and to use appropriately complex sentences in Bangla. We will also focus on some aspects of the technical language pertaining to various domains. The student will be invited to discuss orally on written material studied in class and at home, and he/she will have to produce two to three pages long essays on a given topic. Systematic introductions to a variety of registers and literary idioms (19th century Sadhu Bhasha, dialects, etc.) will also be provided. By the end of the spring quarter the student will have the necessary tools to expand significantly his/her abilities in order to reach the superior level.

Instructor(s): T. d'Hubert Terms Offered: Spring

Prerequisite(s): BANG 30200 or comparable level of language skills

BANG 39910. Advanced Academic Bangla. 100 Units.

This course develops Advanced Bangla language skills to prepare students for doing research both in India and Bangladesh. Students will read scholarly texts in their areas of academic interest intensively. Training will also include improving students' speaking and listening skills so they can participate in academic talks and discussions and speak fluently and at length across academic topics.

BANG 40100-40200-40300. Fourth-Year Bangla (Bengali) I-II-III.

Students attending this course must be able to produce an articulate discourse on subjects related to history and literary criticism. They should also have a good command of Bengali grammar. The course is mainly devoted to the study of selected modern and premodern Bangla texts (narrative literature, devotional and courtly poetry, treatises) in their historical contexts. We propose various readings in the historiography of Bangla literature, philology, traditional performance of Bangla poetry, etc... Besides, material from all periods will be studied according to the student's scholarly interests.

BANG 40100. Fourth-Year Bangla (Bengali) I. 100 Units.

Students attending this course must be able to produce an articulate discourse on subjects related to history and literary criticism. They should also have a good command of Bengali grammar. The course is mainly devoted to the study of selected modern and premodern Bangla texts (narrative literature, devotional and courtly poetry, treatises) in their historical contexts. We propose various readings in the historiography of Bangla literature, philology, traditional performance of Bangla poetry, etc... Besides, material from all periods will be studied according to the student's scholarly interests.

Instructor(s): T. d'Hubert Terms Offered: Autumn

Prerequisite(s): Third year Bangla or comparable level of language skills

BANG 40200. Fourth-Year Bangla II. 100 Units.

Students attending this course must be able to produce an articulate discourse on subjects related to history and literary criticism. They should also have a good command of Bengali grammar. The course is mainly devoted to the study of selected modern and premodern Bangla texts (narrative literature, devotional and courtly poetry, treatises) in their historical contexts. We propose various readings in the historiography of Bangla literature, philology, traditional performance of Bangla poetry, etc... Besides, material from all periods will be studied according to the student's scholarly interests.

Instructor(s): T. d'Hubert Terms Offered: Winter

Prerequisite(s): BANG 40100 or comparable level of language skills

BANG 40300. Fourth-Year Bangla III. 100 Units.

Students attending this course must be able to produce an articulate discourse on subjects related to history and literary criticism. They should also have a good command of Bengali grammar. The course is mainly devoted to the study of selected modern and premodern Bangla texts (narrative literature, devotional and courtly poetry, treatises) in their historical contexts. We propose various readings in the historiography of Bangla literature, philology, traditional performance of Bangla poetry, etc... Besides, material from all periods will be studied according to the student's scholarly interests.

Instructor(s): T. d'Hubert Terms Offered: Spring

Prerequisite(s): BANG 40200 or comparable level of language skills

BANG 40200. Fourth-Year Bangla II. 100 Units.

Students attending this course must be able to produce an articulate discourse on subjects related to history and literary criticism. They should also have a good command of Bengali grammar. The course is mainly devoted to the study of selected modern and premodern Bangla texts (narrative literature, devotional and courtly poetry, treatises) in their historical contexts. We propose various readings in the historiography of Bangla literature, philology, traditional performance of Bangla poetry, etc... Besides, material from all periods will be studied according to the student's scholarly interests.

Instructor(s): T. d'Hubert Terms Offered: Winter

Prerequisite(s): BANG 40100 or comparable level of language skills

BANG 40300. Fourth-Year Bangla III. 100 Units.

Students attending this course must be able to produce an articulate discourse on subjects related to history and literary criticism. They should also have a good command of Bengali grammar. The course is mainly devoted to the study of selected modern and premodern Bangla texts (narrative literature, devotional and courtly poetry, treatises) in their historical contexts. We propose various readings in the historiography of Bangla literature, philology, traditional performance of Bangla poetry, etc... Besides, material from all periods will be studied according to the student's scholarly interests.

Instructor(s): T. d'Hubert Terms Offered: Spring

Prerequisite(s): BANG 40200 or comparable level of language skills

BANG 47900-47901-47902. Rdgs: Advanced Bangla (Bengali) I-II-III.

This course is for students who have successfully completed third and fourth year Bangla. It is divided between classes dealing with the current research themes of the instructor, and the study of material directly related with the research interests of the students. The focus is on methodology and the use of Bangla as a research language.

BANG 47900. Rdgs: Advanced Bangla I. 100 Units.

This course is for students who have successfully completed third and fourth year Bangla. It is divided between classes dealing with the current research themes of the instructor, and the study of material directly related with the research interests of the students. The focus is on methodology and the use of Bangla as a research language.

Instructor(s): T. d'Hubert Terms Offered: Autumn

Prerequisite(s): BANG 40300

BANG 47901. Advanced Readings in Bangla II. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Winter

Prerequisite(s): BANG 47900

BANG 47902. Readings: Advanced Bangla III. 100 Units.

This course is for students who have successfully completed third and fourth year Bangla. It is divided between classes dealing with the current research themes of the instructor, and the study of material directly related to the research interests of the students. The focus is on methodology and the use of Bangla as a research language.

Instructor(s): T. d'Hubert Terms Offered: Spring

Prerequisite(s): BANG 47901

BANG 47901. Advanced Readings in Bangla II. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Winter

Prerequisite(s): BANG 47900

BANG 47902. Readings: Advanced Bangla III. 100 Units.

This course is for students who have successfully completed third and fourth year Bangla. It is divided between classes dealing with the current research themes of the instructor, and the study of material directly related to the research interests of the students. The focus is on methodology and the use of Bangla as a research language.
 Instructor(s): T. d'Hubert Terms Offered: Spring
 Prerequisite(s): BANG 47901

HINDI COURSES**HIND 30100-30200-30300. Third-Year Hindi I-II-III.**

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

HIND 30100. Third-Year Hindi I. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): Ulrike Stark Terms Offered: Autumn

Prerequisite(s): HIND 20300 or comparable level of language skills

HIND 30200. Third-Year Hindi-2. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Winter

Prerequisite(s): HIND 30100 or comparable level of language skills

HIND 30300. Third-Year Hindi-3. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Spring

Prerequisite(s): HIND 30200 or comparable level of language skills

HIND 30200. Third-Year Hindi-2. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Winter

Prerequisite(s): HIND 30100 or comparable level of language skills

HIND 30300. Third-Year Hindi-3. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Spring

Prerequisite(s): HIND 30200 or comparable level of language skills

HIND 40100-40200-40300. Fourth-Year Hindi I-II-III.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

HIND 40100. Fourth-Year Hindi I. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): Ulrike Stark Terms Offered: Autumn

Prerequisite(s): HIND 30300 or comparable level of language skills

HIND 40200. Fourth-Year Hindi-2. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Winter

Prerequisite(s): HIND 40100 or comparable level of language skills

HIND 40300. Fourth-Year Hindi-3. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Spring

Prerequisite(s): HIND 40200 or comparable level of language skills

HIND 40200. Fourth-Year Hindi-2. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Winter

Prerequisite(s): HIND 40100 or comparable level of language skills

HIND 40300. Fourth-Year Hindi-3. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Spring

Prerequisite(s): HIND 40200 or comparable level of language skills

HIND 47900-47901-47902. Rdgs: Advanced Hindi I-II-III.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

HIND 47900. Rdgs: Advanced Hindi. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Autumn

Prerequisite(s): HIND 40300

HIND 47901. Readings in Advanced Hindi-2. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Winter

Prerequisite(s): HIND 47900

HIND 47902. Readings: Advanced Hindi -3. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Spring

Prerequisite(s): HIND 47901

HIND 47901. Readings in Advanced Hindi-2. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Winter

Prerequisite(s): HIND 47900

HIND 47902. Readings: Advanced Hindi -3. 100 Units.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

Instructor(s): T. Williams Terms Offered: Spring

Prerequisite(s): HIND 47901

MARATHI COURSES

MARA 30100-30200-30300. Third-Year Marathi I-II-III.

MARA 30100-30200-30300 is offered based on demand. Interested students should consult with the director of undergraduate studies. Students in this course read from An Advanced Marathi Reader and a wide array of other sources depending on their interests. This course also includes continuing grammar review and practice in composition and speech. This course typically is offered in alternate years.

MARA 30100. Third-Year Marathi I. 100 Units.

Readings from An Advanced Marathi Reader and a wide array of other sources depending on student interests, with continuing grammar review and practice in composition and speech.

Instructor(s): P. Engblom

Prerequisite(s): MARA 20300 or equivalent

MARA 30200. Third-Year Marathi II. 100 Units.

Readings from An Advanced Marathi Reader and a wide array of other sources depending on student interests, with continuing grammar review and practice in composition and speech.

Instructor(s): P. Engblom

Prerequisite(s): MARA 20300 or equivalent

MARA 30300. Third-Year Marathi III. 100 Units.

Readings from An Advanced Marathi Reader and a wide array of other sources depending on student interests, with continuing grammar review and practice in composition and speech.

Instructor(s): P. Engblom

Prerequisite(s): MARA 20300 or equivalent

MARA 30200. Third-Year Marathi II. 100 Units.

Readings from An Advanced Marathi Reader and a wide array of other sources depending on student interests, with continuing grammar review and practice in composition and speech.

Instructor(s): P. Engblom

Prerequisite(s): MARA 20300 or equivalent

MARA 30300. Third-Year Marathi III. 100 Units.

Readings from An Advanced Marathi Reader and a wide array of other sources depending on student interests, with continuing grammar review and practice in composition and speech.

Instructor(s): P. Engblom

Prerequisite(s): MARA 20300 or equivalent

MARA 47901. Advanced Readings in Marathi-2. 100 Units.

PALI COURSES

SANSKRIT COURSES

SANS 30100-30200-30300. Third-Year Sanskrit I-II-III.

Reading selections introduce major Sanskrit genres, including verse and prose narrative, lyric poetry, drama, and the intellectual discourse of religion, philosophy, and the sciences. Analysis of the language and style employed in commentarial texts and practice in reading such texts is also emphasized.

SANS 30100. Third-Year Sanskrit I. 100 Units.

Reading selections introduce major Sanskrit genres, including verse and prose narrative, lyric poetry, drama, and the intellectual discourse of religion, philosophy, and the sciences. Analysis of the language and style employed in commentarial texts and practice in reading such texts is also emphasized.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): SANS 20300 or approval of instructor

SANS 30200. Third-Year Sanskrit-2. 100 Units.

Reading selections introduce major Sanskrit genres, including verse and prose narrative, lyric poetry, drama, and the intellectual discourse of religion, philosophy, and the sciences. Analysis of the language and style employed in commentarial texts and practice in reading such texts is also emphasized.

Instructor(s): D. Arnold Terms Offered: Winter

Prerequisite(s): SANS 30100 or approval of instructor

SANS 30300. Third-Year Sanskrit-3. 100 Units.

Reading selections introduce major Sanskrit genres, including verse and prose narrative, lyric poetry, drama, and the intellectual discourse of religion, philosophy, and the sciences. Analysis of the language and style employed in commentarial texts and practice in reading such texts is also emphasized.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): SANS 30200 or approval of instructor

SANS 30200. Third-Year Sanskrit-2. 100 Units.

Reading selections introduce major Sanskrit genres, including verse and prose narrative, lyric poetry, drama, and the intellectual discourse of religion, philosophy, and the sciences. Analysis of the language and style employed in commentarial texts and practice in reading such texts is also emphasized.

Instructor(s): D. Arnold Terms Offered: Winter

Prerequisite(s): SANS 30100 or approval of instructor

SANS 30300. Third-Year Sanskrit-3. 100 Units.

Reading selections introduce major Sanskrit genres, including verse and prose narrative, lyric poetry, drama, and the intellectual discourse of religion, philosophy, and the sciences. Analysis of the language and style employed in commentarial texts and practice in reading such texts is also emphasized.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): SANS 30200 or approval of instructor

SANS 40100-40200-40300. Fourth-Year Sanskrit I-II-III.

The goal of this sequence is to provide students with strong reading expertise in a wide range of Sanskrit texts in literature (poems and plays, verse and prose) and the scientific and philosophical discourses (e.g., grammar, logic, poetic theory, Buddhist thought), and commentarial literature on both.

SANS 40100. Fourth-Year Sanskrit I. 100 Units.

The goal of this sequence is to provide students with strong reading expertise in a wide range of Sanskrit texts in literature (poems and plays, verse and prose) and the scientific and philosophical discourses (e.g., grammar, logic, poetic theory, Buddhist thought), and commentarial literature on both.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): PQ: Third year Sanskrit or comparable level of language skills. SANS 30300 or approval of instructor.

SANS 40200. Fourth-Year Sanskrit-2. 100 Units.

The goal of this sequence is to provide students with strong reading expertise in a wide range of Sanskrit texts in literature (poems and plays, verse and prose) and the scientific and philosophical discourses (e.g., grammar, logic, poetic theory, Buddhist thought), and commentarial literature on both.

Instructor(s): D. Arnold Terms Offered: Winter

Prerequisite(s): SANS 40100 or approval of instructor

SANS 40300. Fourth-Year Sanskrit-3. 100 Units.

The goal of this sequence is to provide students with strong reading expertise in a wide range of Sanskrit texts in literature (poems and plays, verse and prose) and the scientific and philosophical discourses (e.g., grammar, logic, poetic theory, Buddhist thought), and commentarial literature on both.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): SANS 40200 or approval of instructor

SANS 40200. Fourth-Year Sanskrit-2. 100 Units.

The goal of this sequence is to provide students with strong reading expertise in a wide range of Sanskrit texts in literature (poems and plays, verse and prose) and the scientific and philosophical discourses (e.g., grammar, logic, poetic theory, Buddhist thought), and commentarial literature on both.

Instructor(s): D. Arnold Terms Offered: Winter

Prerequisite(s): SANS 40100 or approval of instructor

SANS 40300. Fourth-Year Sanskrit-3. 100 Units.

The goal of this sequence is to provide students with strong reading expertise in a wide range of Sanskrit texts in literature (poems and plays, verse and prose) and the scientific and philosophical discourses (e.g., grammar, logic, poetic theory, Buddhist thought), and commentarial literature on both.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): SANS 40200 or approval of instructor

SANS 47900-47901-47902. Rdgs: Advanced Sanskrit I-II-III.

Readings drawn from texts at an advanced level of difficulty in any of the relevant genres of Sanskrit, including literature, philosophy, literary theory, and religion, for students who have already completed fourth-year Sanskrit. Continuing attention is given to matters of grammar, style, scholastic techniques, and intellectual and cultural content.

SANS 47900. Readings: Advanced Sanskrit I. 100 Units.

Readings drawn from texts at an advanced level of difficulty in any of the relevant genres of Sanskrit, including literature, philosophy, literary theory, and religion, for students who have already completed fourth-year Sanskrit. Continuing attention is given to matters of grammar, style, scholastic techniques, and intellectual and cultural content.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): SANS 40300

SANS 47901. Advanced Readings in Sanskrit-2. 100 Units.

Readings drawn from texts at an advanced level of difficulty in any of the relevant genres of Sanskrit, including literature, philosophy, literary theory, and religion, for students who have already completed fourth-year Sanskrit. Continuing attention is given to matters of grammar, style, scholastic techniques, and intellectual and cultural content.

Instructor(s): D. Arnold Terms Offered: Winter

Prerequisite(s): SANS 47900

SANS 47902. Readings: Advanced Sanskrit-3. 100 Units.

Readings drawn from texts at an advanced level of difficulty in any of the relevant genres of Sanskrit, including literature, philosophy, literary theory, and religion, for students who have already completed fourth-year Sanskrit. Continuing attention is given to matters of grammar, style, scholastic techniques, and intellectual and cultural content.

Equivalent Course(s): DVPR 41500

SANS 47901. Advanced Readings in Sanskrit-2. 100 Units.

Readings drawn from texts at an advanced level of difficulty in any of the relevant genres of Sanskrit, including literature, philosophy, literary theory, and religion, for students who have already completed fourth-year Sanskrit. Continuing attention is given to matters of grammar, style, scholastic techniques, and intellectual and cultural content.

Instructor(s): D. Arnold Terms Offered: Winter

Prerequisite(s): SANS 47900

SANS 47902. Readings: Advanced Sanskrit-3. 100 Units.

The course explores some of the music traditions that hail from South Asia—a region defined by the countries of India, Pakistan, Sri Lanka, Nepal, Bhutan, Afghanistan, Maldives, and their diasporas. The course will study music and some of its inextricably linked forms of dance and theatre through the lens of ethnomusicology, where music is considered in its social and cultural contexts. Students will develop tools to listen, analyze, watch, and participate in South Asian forms of music-making, using case-study based inquiries as guides along the way.

Instructor(s): Aameera Nimjee Terms Offered: Spring

SOUTH ASIAN LANGUAGES AND CIVILIZATIONS COURSES**SALC 30800. Music of South Asia. 100 Units.**

The course explores some of the music traditions that hail from South Asia—a region defined by the countries of India, Pakistan, Sri Lanka, Nepal, Bhutan, Afghanistan, Maldives, and their diasporas. The course will study music and some of its inextricably linked forms of dance and theatre through the lens of ethnomusicology, where music is considered in its social and cultural contexts. Students will develop tools to listen, analyze, watch, and participate in South Asian forms of music-making, using case-study based inquiries as guides along the way.

Instructor(s): Ameera Nimjee Terms Offered: Spring

Equivalent Course(s): MUSI 33706, SALC 20800, RLST 27700, MUSI 23706

SALC 30901-30902. Indian Philosophy I-II.**SALC 30901. Indian Philosophy I: Origins and Orientations. 100 Units.**

A survey of the origins of Indian philosophical thought, emphasizing the Vedas, Upanisads, and early Buddhist literature. Topics include concepts of causality and freedom, the nature of the self and ultimate reality, and the relationship between philosophical thought and ritual or ascetic religious practice.

Instructor(s): D. Arnold Terms Offered: Winter

Equivalent Course(s): SALC 20901, RLST 24201, HREL 30200, DVPR 30201

SALC 30902. Indian Philosophy II: The Classical Traditions. 100 Units.

Following on the Indian Philosophy I course, this course will survey major developments in the mature period of scholastic philosophy in India—a period, beginning a little before the middle of the first millennium C.E., that is characterized by extensive and sophisticated debate (made possible by the emergence of shared philosophical vocabulary and methods) among Buddhist, Brahmanical, and Jain philosophers. Students are encouraged (but not required) to take Indian Philosophy I before taking this course.

Instructor(s): M. Kapstein Terms Offered: Spring

Equivalent Course(s): SALC 20902, DVPR 30302, RLST 24202, MDVL 24202, HREL 30300

SALC 30902. Indian Philosophy II: The Classical Traditions. 100 Units.

Following on the Indian Philosophy I course, this course will survey major developments in the mature period of scholastic philosophy in India—a period, beginning a little before the middle of the first millennium C.E., that is characterized by extensive and sophisticated debate (made possible by the emergence of shared philosophical vocabulary and methods) among Buddhist, Brahmanical, and Jain philosophers. Students are encouraged (but not required) to take Indian Philosophy I before taking this course.

Instructor(s): M. Kapstein Terms Offered: Spring

Equivalent Course(s): SALC 20902, DVPR 30302, RLST 24202, MDVL 24202, HREL 30300

SALC 30927. Knowledge as a Platter: Comparative Perspectives on Knowledge Texts in the Ancient World. 100 Units.

In various ancient cultures, sages created the new ways of systematizing what was known in fields as diverse as medicine, politics, sex, dreams, and mathematics. These texts did more than present what was known; they exemplified what it means to know—and also why reflective, systematic knowledge should be valued more highly than the knowledge gained from common sense or experience. Drawing on texts from Ancient India, Greece, Rome, and the Near East, this course will explore these early templates for the highest form of knowledge and compare their ways of creating fields of inquiry: the first disciplines. Texts include the Arthashastra, the Hippocratic corpus, Deuteronomy, the Kama Sutra, and Aristotle's *Parva naturalia*.

Equivalent Course(s): HREL 30927, SETH 30927, CHSS 30927, KNOW 31415

SALC 32606. Classical Literature of South Asia: Part One. 100 Units.

This is a broadly chronological survey of South Asia's literary traditions. In the first part of this two-part sequence, our focus will be on the first millennium CE, and we will read a wide variety of literary works in translation: lyric poetry, stage plays, courtly epics, romances and satires. We will read these texts as representing both evolving traditions of literary art and a diverse constellation of social imaginaries. Our conversations will thus range over: questions of language, genre, form and style; subcontinental traditions of poetics, which elaborated the themes and techniques of literary art; issues of sexuality and gender; the intellectual and religious traditions with which works of literature were in conversation; contexts of performance; and issues of literary history. We will sometimes read short texts in the original languages (Prakrit, Tamil and Sanskrit) to gain a better understanding of their texture and technique, but no prior knowledge of South Asian languages is required. The second part of this two-part sequence will cover South Asian literature from about 1000 to 1750. The courses may be taken in any order.

Instructor(s): Andrew Ollett Terms Offered: Autumn

Equivalent Course(s): SALC 22605

SALC 33101. Love, Conjugality, and Capital: Intimacy in the Modern World. 100 Units.

A look at societies in other parts of the world demonstrates that modernity in the realm of love, intimacy, and family often had a different trajectory from the European one. This course surveys ideas and practices surrounding love, marriage, and capital in the modern world. Using a range of theoretical, historical, and anthropological readings, as well as films, the course explores such topics as the emergence of companionate marriage in Europe and the connections between arranged marriage, dowry, love, and money. Case studies are drawn primarily from Europe, India, and Africa.

Instructor(s): J. Cole, R. Majumdar Terms Offered: Winter

Prerequisite(s): Any 10000-level music course or consent of instructor

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): ANTH 32220, ANTH 21525, GNSE 23102, HIST 36903, GNSE 31700, HIST 26903, CRES 23101, SALC 43101, CRES 33101, CHDV 33212, CHDV 22212

SALC 33700. How to do Things with South Asian Texts? Literary Theories and South Asian Literatures. 100 Units.

This course provides an overview of different methods, approaches and themes currently prevalent in the study of South Asian texts from various periods. Topics covered will include translation (theory and practice), book history, literary history, textual criticism, genre theory (the novel in South Asia), literature and colonialism, cultural mobility studies (Greenblatt) and comparative literature/new philologies (Spivak, Ette). Readings will include work by George Steiner, Sheldon Pollock, Meenakshi Mukherjee, Terry Eagleton, Stephen Greenblatt, Gayatri Spivak, Ottmar Ette, and others. We will discuss these different approaches with particular reference to the texts with which participating students are working for their various projects. Students interested in both pre-modern and modern/contemporary texts are welcome. While the course is organized primarily from a literary studies perspective, it will also be of interest to students of history, anthropology and other disciplines dealing with "texts". The course is open to both undergraduate and graduate students (no prior knowledge of literary theory or South Asian writing is assumed).

Instructor(s): Sascha Ebeling Terms Offered: Spring

Equivalent Course(s): CMLT 33700

SALC 34300. Buddhist Poetry in India. 100 Units.

The substantial Buddhist contribution to Indian poetry is of interest for what it teaches us of both Buddhism and the broad development of Indian literature. The present course will focus upon three phases in this history, with attention to what changes of language and literary genre tell us of the transformations of Indian religious culture from the last centuries B.C.E. to about the year 1000. Readings (all in translation) will include the *Therīgāthā*, a collection of verses written in Pali and the most ancient Indian example of women's literature, selections from the work of the great Sanskrit poets *Aśvaghōṣa*, *Aryaśūra*, and *Mātṛceta*, and the mystical songs, in the Apabhraṃśa language, of the Buddhist tantric saints.

Instructor(s): Matthew Kapstein Terms Offered: Spring

Prerequisite(s): Elementary background in Buddhist Studies and/or South Asian Studies is desirable

Equivalent Course(s): DVPR 34300, RLST 26250, HREL 34300, RLVC 34300

SALC 36611. Empires, Imperialism, and Islam. 100 Units.

This seminar course will survey interactions between empires and Islam from the early nineteenth century to the early twenty-first century. It will consider the varied responses of Islamic polities to the expansion of European empires, their role in proliferating networks of travel and communication, as well as the place of religion in anti-imperial and anticolonial movements. Geographically we will cover Asia very broadly defined: from the Ottoman Empire in the west, through the Middle East and Central and South Asia, to Indonesia and Malaysia to the east. Individual classes will focus, for instance, on imperial connections, the emergence of pan-Islamism, Sufi networks, oceanic travel, subaltern social and political movements, and Cold War-era Muslim ideologues. The course will conclude with a look at the rise of more militant Islamic ideologies in recent years. Investigating this two-century long history will help students understand the complex role that Islam has played in the making of the modern world. Course readings will be on the whole recent scholarship on these subjects, with key primary texts introduced in class.

Equivalent Course(s): HIST 36611, SALC 26611, HIST 26611

SALC 37701. Mughal India: Tradition & Transition. 100 Units.

The focus of this course is on the period of Mughal rule during the late sixteenth, seventeenth, and eighteenth centuries, especially on selected issues that have been at the center of historiographical debate in the past decades.

Instructor(s): M. Alam Terms Offered: Autumn

Prerequisite(s): Advanced standing or consent of instructor. Prior knowledge of appropriate history and secondary literature required.

Equivalent Course(s): NEHC 20570, SALC 27701, HIST 26602, NEHC 30570, HIST 36602

SALC 38000. Introduction to Prakrit. 100 Units.**SALC 38606. The Spirit of the Nation: Comparisons between India and China. 100 Units.**

This course examines the spiritual nature of nationalism. All over the world nationalists of various political persuasions try to formulate the spiritual essence ('Geist') of the nation. They built theories of civilizational uniqueness or 'the genius of the nation', but use ideas that were originally intended to promote 'universal spirituality'. This tension between nationalism and universalism will be explored. Spiritual nationalism also has an uneasy relation with existing religious traditions that have their own ideas and practices around spirits. The course will focus on comparisons between India and China, but also engage with other nationalisms and religious traditions, such as Japanese Shintoism. The approach is less from a formal history of the circulation of ideas than from a comparative anthropology. Examination by final essay.

Instructor(s): Peter van der Veer Terms Offered: Spring

Equivalent Course(s): SALC 28606, AASR 36806, ANTH 23912, ANTH 35032

SALC 39001. Tibetan Buddhism. 100 Units.

This course is designed to serve as an introductory survey of the history, doctrines, institutions, and practices of Buddhism in Tibet from its origins in the mid-first-millennium through the present. Readings will be drawn both from primary sources (in translation) and secondary and tertiary scholarly research.

Instructor(s): Christian Wedmeyer Terms Offered: Spring

Equivalent Course(s): HREL 35200

SALC 39002. Tibet: Culture, Art, and History. 100 Units.

This class will introduce students to Tibetan civilization from pre-modernity to the present with an emphasis on literature, society, visual arts, and history. Attention will be paid to Tibet's relations with neighboring polities in South, East, and Central Asia, as well as distinctive indigenous practices. The course will cover a range of Tibetan cultural forms, highlighting pre-modern sciences of medicine, logic, and meditation, as well as contemporary developments in Tibetan modernity and the diaspora communities. Course materials will include primary sources in translation (e.g. Dunhuang manuscripts and other literature), contemporary scholarship, as well as audio-visual materials. In addition to informed participation in course meetings/discussions, including regular, timely completion of reading assignments, students are expected to write two short (5-7pp) papers on topics assigned by the instructors. *All course readings will be available on electronic reserve via Canvas (<http://canvas.uchicago.edu/>)*

Instructor(s): Karma Ngodup and Christian K. Wedemeyer Terms Offered: Autumn

Equivalent Course(s): SALC 29002

SALC 39900. Informal Reading Course. 100 Units.

This is a specially designed course not normally offered as part of the curriculum that is arranged between a student and a faculty member.

Instructor(s): Student chooses instructor Terms Offered: Autumn, Spring, Winter

Note(s): Requires consent of instructor

SALC 39910. Readings in Middle Bengali literature. 100 Units.

This informal reading course focuses on the methods of textual criticism in the domain of Middle Bengali. We will read various texts from manuscripts, transcribe them, analyze their content at the linguistic and stylistic levels, and translate them into English. Although the primary aim of the course is to familiarize students with the close reading of Middle Bengali poetry, we will also discuss questions of literary historiography and poetics.

Instructor(s): Thibaut d'Hubert Terms Offered: Autumn

SALC 39911. Readings in Middle Bengali Literature II. 100 Units.

This informal reading course focuses on the methods of textual criticism in the domain of Middle Bengali. We will read various texts from manuscripts, transcribe them, analyze their content at the linguistic and stylistic levels, and translate them into English. Although the primary aim of the course is to familiarize students with the close reading of Middle Bengali poetry, we will also discuss questions of literary historiography and poetics.

Instructor(s): Thibaut d'Hubert Terms Offered: Winter

Prerequisite(s): SALC 39910

SALC 39912. Readings in Middle Bengali Literature III. 100 Units.

This is the third course in the series of informal reading courses that focus on the methods of textual criticism in the domain of Middle Bengali. We will read various texts from manuscripts, transcribe them, analyze their content at the linguistic and stylistic levels, and translate them into English. Although the primary aim of the course is to familiarize students with the close reading of Middle Bengali poetry, we will also discuss questions of literary historiography and poetics.

Instructor(s): Thibaut d'Hubert Terms Offered: Spring

Prerequisite(s): SALC 39911

SALC 39920. Readings in Indo-Persian Literature. 100 Units.

In this course we will read Persian texts produced in South Asia between the 12th and 19th centuries. The texts under scrutiny will be lyric and narrative poems, treatises on grammar and poetics, and biographical dictionaries of poets.

Instructor(s): Thibaut d'Hubert Terms Offered: Autumn

SALC 39921. Readings in Indo-Persian Literature II. 100 Units.

In this course we will read Persian texts produced in South Asia between the 12th and 19th centuries. The texts under scrutiny will be lyric and narrative poems, treatises on grammar and poetics, and biographical dictionaries of poets.

Instructor(s): Thibaut d'Hubert Terms Offered: Winter

Prerequisite(s): SALC 39920

SALC 39922. Readings in Indo-Persian Literature III. 100 Units.

In this third course we will continue to read Persian texts produced in South Asia between the 12th and 19th centuries. The texts under scrutiny will be lyric and narrative poems, treatises on grammar and poetics, and biographical dictionaries of poets.

Instructor(s): Thibaut d'Hubert Terms Offered: Spring

Prerequisite(s): SALC 39921

SALC 40002. Sem: Postcolonial Theory. 100 Units.**SALC 40010. Contemporary Topics in the Study of South Asian Religion. 100 Units.**

This course takes up theoretical problems in religious studies, issues specific to the study of South Asia, and the intersections between the two. It foregrounds history, that is, the historical lives of religion in the subcontinent. Theory, in both the sense of conceptualizing religion and the concepts of religious actors themselves, is treated as an historical object, as emerging from and participating in history. Topics covered in the course range between: religious encounter and shared practices; sexuality and spirit-possession; epics and everyday ethics; poverty and plenitude; hospitality and healing; colonial systems of classification; caste and regimes of unfree labor.

Instructor(s): Anand Venkatkrishnan Terms Offered: Autumn

Equivalent Course(s): HREL 40010

SALC 40100. Research Themes in South Asian Studies: Textual Transformations - From Manuscript to Print. 100 Units.

This graduate course offers an introduction to the theory and practice of book history and print culture studies, a relatively recent and vibrant field of inquiry within South Asian Studies. The course will explore some of the main theoretical approaches, themes, and methodologies of the history of the book in comparative perspective, and discuss the specific conditions and challenges facing scholars of South Asian book history. Topics include orality and literacy, technologies of scribal and print production, the sociology of texts, authorship and authority, the print "revolution" and knowledge formation under British colonial rule, the legal existence of books, the economy of the book trade, popular print, readership and consumption. We will also engage with the text as material artifact and look at the changing contexts, techniques, and practices of book production in the transition from manuscript to print.

Instructor(s): Ulrike Stark Terms Offered: Autumn

Equivalent Course(s): HIST 61802, CMLT 40101

SALC 42117. A Global Sonic History in 30 Objects. 100 Units.

Students will draw upon the wide range of disciplinary perspectives that contribute to sound studies. Collectively they will use these to understand the historical meaning present in the materiality of what we call the "audio moment." Critical to the audio moment is the transformation from object to subject, from the material to the sonic. These transformations unleash meaning and generate the multiple subjectivities from which history emerges. Basic ontologies will be challenged in our consideration of each object. The objects we consider are largely not primarily associated with music alone, but through their transformation into audio moments we are often able to understand just where music situates them in the human subjectivities of different societies. In addition to its interdisciplinarity this CDI seminar will be broadly comparative and will draw upon diverse sources and collections for its objects (e.g., with visits to urban and architectural spaces on campus, the Art Institute of Chicago, the Digital Media Archive). The goal of such comparative investigation is not to undo ontological assumptions about the dialectics of music/sound, but rather to use the collective thought that grows from the seminar participants to generate new approaches to the aesthetics and epistemology of sound and history globally.

Equivalent Course(s): CDIN 42117, MUSI 42117, CMES 42117

SALC 42910. Gender and Sexuality in South Asian Religions. 100 Units.

From Va#tsya#yana's Ka#masu#tra to debates around widow remarriage in the colonial period, the nexus of gender and sexuality fundamentally shapes religious practices and beliefs as well as the lives of women and gender non-conforming people. The central questions guiding this course are: How do South Asian religious traditions incorporate sexual practice and/or restraint into a vision of ethical life? When does one's gender become dangerous or unethical? How do histories of imperialism interfere with and transform the study of gender and sexuality in South Asian religions? In pursuing these questions through a range of methodological approaches to the field, students will gain a deep familiarity with practices of religious asceticism, the place of erotics within religious discourse, new perspectives on queer and trans theory, emic feminisms, and sexual ethics.

Instructor(s): Sarah Pierce Taylor Terms Offered: Winter

Note(s): This course is open to undergraduates with the permission of the instructor.

Equivalent Course(s): RLVC 42910

SALC 43101. Love, Conjugality, and Capital: Intimacy in the Modern World. 100 Units.

A look at societies in other parts of the world demonstrates that modernity in the realm of love, intimacy, and family often had a different trajectory from the European one. This course surveys ideas and practices surrounding love, marriage, and capital in the modern world. Using a range of theoretical, historical, and anthropological readings, as well as films, the course explores such topics as the emergence of companionate marriage in Europe and the connections between arranged marriage, dowry, love, and money. Case studies are drawn primarily from Europe, India, and Africa.

Instructor(s): J. Cole, R. Majumdar Terms Offered: Winter

Prerequisite(s): Any 10000-level music course or consent of instructor

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): ANTH 32220, ANTH 21525, GNSE 23102, HIST 36903, GNSE 31700, HIST 26903, CRES 23101, CRES 33101, CHDV 33212, SALC 33101, CHDV 22212

SALC 43105. Women's Rights, Cultural Nationalisms, and Moral Panics. 100 Units.

The discourse on women's rights, and more gradually the rights of transgender and intersex communities, has gained tremendous momentum globally in the last few decades. At the same time, in many parts of the world, these changes have been accompanied by moral panics over what such empowerment means for national "cultures." They have sometimes also resulted in violence against women and sexual minorities. In South Africa, for example, marriage rates have reached new lows and single mothers have become a highly visible social category, eligible for state relief through a newly-instated Child Support Grant. Their access to these new state privileges has been accompanied by increased social surveillance; South African men and elders accuse young mothers of abusing their rights, upending the moral order. Both Uganda and Kenya, where national constitutions guarantee gender quotas for elected politicians, have also recently passed national legislation that seeks to regulate women's clothing (i.e. the so-called "Miniskirt Bill" passed in Uganda in 2014). In India, women's increasing participation in the workforce and their visibility in public space, or couples who contract marriages across religious divides, have led to violent disciplining by other members of the community, sometimes in the name of a "love Jihad." Feminists and queer activists, however, are not mute in the face of such resistance. Instead they have sought new ways to make claims about their right to "public" space.

Equivalent Course(s): CDIN 43105, CHDV 30609, HIST 40101, ANTH 35218

SALC 43800. Wives, Widows, and Prostitutes: Hindi Literature and the "Women's Question" 100 Units.

From the early 19th century onward, the debate on the status of Indian women was an integral part of the discourse on the state of civilization, Hindu tradition, and social reform in colonial India. This course will explore how Indian authors of the late 19th and early 20th centuries engaged with the so-called "women's question." Caught between middle-class conservatism and the urge for social reform, Hindi and Urdu writers addressed controversial issues such as female education, child marriage, widow remarriage, and prostitution in their fictional and discursive writings. We will explore the tensions of a literary and social agenda that advocated the 'uplift' of women as a necessary precondition for the progress of the nation, while also expressing patriarchal fears about women's rights and freedom. The course is open to both undergraduate and graduate students. Basic knowledge of Hindi and/or Urdu is preferable, but not required. We will read works by Nazir Ahmad, Premchand, Jainendra Kumar, Mirza Hadi Ruswa, and Mahadevi Varma in English translation, and also look at texts used in Indian female education at the time.

Instructor(s): U. Stark Terms Offered: Spring

Prerequisite(s): Consent of instructor based on demonstrated knowledge of Hindi

Equivalent Course(s): GNSE 27902, GNSE 47900, SALC 27904

SALC 44701. Ritual in South Asian Buddhism. 100 Units.

This course will explore some ritual practices and theories of South Asian Buddhists in light of current theorization of ritual. What is it that Buddhists "actually" (physically and verbally) do? And, what do they say about what they do? Does what they do "mean" anything? If so, how? And, what significance might this have for anyone else? What happens when we consider these possibly meaningful forms of expression as "ritual?" Exemplaria will be drawn from India, Nepal, Burma and Tibet, with some comparative perspectives considered along the way.

Instructor(s): Christian Wedemeyer Terms Offered: Winter

Prerequisite(s): Some prior study of South Asian religions

Equivalent Course(s): HREL 44701

SALC 46903. History and Literature of Pakistan: Postcolonial Representations. 100 Units.

No description available.

Instructor(s): C.R. Perkins Terms Offered: Autumn

Equivalent Course(s): NEHC 26903, SALC 26903, HIST 26608

SALC 47302. Transmission of Islamic Knowledge in South Asia since 1800. 100 Units.

Equivalent Course(s): NEHC 37302, ISLM 37302, HIST 45904

SALC 48203. Buddhist Narratives. 100 Units.

This course will read and discuss stories translated mostly from Pali (with some from Sanskrit), on the topics of the Buddha's (extended) (Auto)biography, and the Past Lives of the Buddha (Jātakas) culminating in an analysis of various versions of the Vessantara (Viśvantara) Jātaka. Such stories will be considered also in light of the theory of the Ten Excellencies (Perfections. pāramī). It will also study some works on Narrative Theory, and on the difference between narrative and systematic thought, asking what different textual form makes to Buddhist ideas, ideals and values.

Instructor(s): S. Collins Terms Offered: Spring

Prerequisite(s): PQ: Previous knowledge of Buddhism (at least one course)

Equivalent Course(s): HREL 48203

SALC 48306. Indian Buddhism. 100 Units.

This course is designed to serve as an introductory survey of the history, doctrines, institutions, and practices of Buddhism in India from its origins through the present. Readings will be drawn both from primary sources (in translation) and secondary and tertiary scholarly research.

Instructor(s): Christian Wedemeyer Terms Offered: Winter

Equivalent Course(s): HREL 35100

SALC 48317. Readings in Madhyamaka. 100 Units.

This course will involve close philosophical attention to a representative range of Indian Madhyamaka texts.

Instructor(s): Dan Arnold Terms Offered: Winter

Prerequisite(s): Some Tibetan or Sanskrit is expected. Exceptions with consent of the instructor.

Equivalent Course(s): DVPR 41700

SALC 48400. Second-Year Sanskrit II. 100 Units.

This sequence begins with a rapid review of grammar learned in the introductory course, followed by readings from a variety of Sanskrit texts. The goals are to consolidate grammatical knowledge, expand vocabulary, and gain confidence in reading different styles of Sanskrit independently. The winter quarter will be a reading of the Mahabharata.

Instructor(s): W. Doniger Terms Offered: Winter

Prerequisite(s): SANS 20100 or consent of instructor

Equivalent Course(s): SANS 20200, HREL 36000

SALC 48403. Text and World in Medieval India. 100 Units.**SALC 48405. The Theory and Practice of Indic Textual Criticism. 100 Units.**

This course will serve as an introduction to the methods of textual criticism, the practice of editorial philology, and the bibliographical nature of the critical edition as they are applicable to premodern South Asia, especially to works in Sanskrit, although other linguistic and textual cultures will also be considered. The titular difference between 'theory' and 'practice' is not meant as a cliché, and the two weekly sessions will be organized along distinct lines. In the first meeting, we will read, discuss, and present works that variously introduce, discuss, critique, and exemplify these sorts of textual practices. We will begin with some orientating works on philology more generally (e.g. the guidebooks of Paul Maas and Martin West; Housman's polemical essays; Timpanaro's study of Lachmann; Turner's recent popular history) and proceed to move into more South Asia specific materials from there, including classics (Sukthankar, Katre, M.R. Kavi) as well as contemporary discussions (Pollock, Alam, Kinra, Phillips-Rodriguez). Big questions will include: in what ways are the methods developed for the classical Mediterranean and European worlds applicable to other textual cultures? In what ways does this constitute a specifically 'scientific' (i.e. transparent, falsifiable) practice of knowledge? What can be said of the institutional motivations for the production of critical editions, in India or elsewhere?

Instructor(s): Whitney Cox Terms Offered: Autumn

SALC 48501. Readings in Tibetan Buddhist Texts. 100 Units.

Readings in selected Buddhist doctrinal writings in Tibetan.

Instructor(s): Matthew Kapstein Terms Offered: Winter

Prerequisite(s): Open to students reading Tibetan at an advanced level.

Equivalent Course(s): DVPR 48910, HREL 48910

SALC 48603. Talking Birds and Cunning Jackals: A Survey of Indo-Persian Prose. 100 Units.

Prerequisites: intermediate level of Persian. This course features a selection of Persian prose texts such as tales, premodern translations of romance and epic texts on Indian themes (Mahābhārata, Rāmāyaṇa, Pāncatantra, etc...), letters, models of elegant prose writings, and anecdotes from chronicles, tadhkira literature, and autobiographical writings. We will first read easy, plain prose texts, such as Naqīb Khān's translation of the Mahābhārata commissioned by Akbar, which will allow the students to familiarize themselves with the cultural context of South Asia. Then, toward the middle of the quarter we will shift to increasingly difficult texts to reach the characteristically ornate prose of the Mughal period, such as #Ināyat Allāh Kambūh's Bahār-i dānish or Bedil's Chahār #un#ur. Students with an intermediate level of Persian will thus be able to take this class and then, the following year, be ready to attend the more challenging course titled "Persian Philology and Poetry in South Asia" offered every other year, alternately with the present survey of Indo-Persian prose. Thibaut d'Hubert and Muzaffar Alam, Spring 2018

Equivalent Course(s): PERS 48693, NEHC 48603

SALC 49006. Yogacara. 100 Units.

This seminar, which presupposes a basic knowledge of Indian and/or Tibetan Buddhist philosophy, will consider some of the foundational texts of the Yogacara tradition of thought, with particular reference to the works of Vasubandhu. In addition to close readings of assorted primary sources, we will consider contemporary scholarly debates regarding the interpretation of Yogacara (e.e., concerning the question whether this is aptly characterized as an "idealist" school of thought).

Instructor(s): Dan Arnold Terms Offered: Spring

Prerequisite(s): Some knowledge of Sanskrit or Tibetan is preferred.

Equivalent Course(s): DVPR 51700

SALC 49301. Asceticism and Civilization. 100 Units.

This course examines the phenomenon of asceticism (it is better to use the Greek word askēsis) - a disciplined life-style (usually) involving celibacy, lack of individual wealth, obedience to a rule, etc.- in relation to human civilization. How is it that this way of life, which in many ways challenges basic elements of normal social existence, is nonetheless often accorded a central civilizational position and value? In addition to works of theory, material on both men and women ascetics will be investigated, in the Hindu and Jain traditions in India, Buddhism in Southeast Asia, Taiwan, and Japan, Hellenistic and Roman Philosophy, and Christianity and Catharism in Europe.

Instructor(s): S. Collins Terms Offered: Autumn

Equivalent Course(s): HREL 49301

SALC 49900. Thesis Research. 100 Units.

Instructor(s): Student chooses instructor Terms Offered: Autumn, Winter, Spring

Note(s): Requires consent of instructor

SALC 50204. Destruction of Images, Books & Artifacts in Europe and S. Asia. 100 Units.

The course offers a comparative perspective on European and South Asian iconoclasm. In the European tradition, iconoclasm was predominantly aimed at images, whereas in South Asian traditions it was also enacted upon books and buildings. The combination of these traditions will allow us to extend the usual understanding of iconoclasm as the destruction of images to a broader phenomenon of destruction of cultural artifacts and help question the theories of image as they have been independently developed in Europe and South Asia, and occasionally in conversation with one another. We will ask how and why, in the context of particular political imaginaries and material cultures, were certain objects singled out for iconoclasm? Also, who was considered to be entitled or authorized to commit their destruction? Through a choice of concrete examples of iconoclasm, we will query how religious and political motivations are defined, redefined, and intertwined in each particular case. We will approach the iconoclastic events in Europe and South Asia through the lenses of philology, history, and material culture. Class discussions will incorporate not only textual materials, but also the close collaborative study of images, objects, and film. Case studies will make use of objects in the Art Institute of Chicago and Special Collections at the University Library.

Equivalent Course(s): CMLT 50204, ARTH 40204, CDIN 50204, RLVC 50204, SCTH 50204, HREL 50204

SALC 60100. Teaching South Asia. 100 Units.

Teaching South Asia will be a Workshop open to students in their second year of their graduate program or above, who are now or who expect to be teaching any kinds of course in the area(s) of South Asian Studies in the future. It is intended for all students in the University, and will not have a specific Humanities focus. In the past we have discussed actual or draft syllabuses, students have given trial lectures, conference or job talks, we have run mock job interviews, etc. What happens this year will depend on what students want. Students who have attended the workshop before will be allowed to take it again.

Instructor(s): S. Collins Terms Offered: Autumn

Prerequisite(s): Second year as a graduate student or beyond.

SALC 61805. Colloquium: South Asian Political Thought-A Genealogy. 100 Units.

This course will look at some key texts of the colonial and postcolonial periods of South Asian history to see how the domain of the political has been understood and debated in the subcontinent since the beginning of the twentieth century.

Equivalent Course(s): HIST 61805

SALC 70000. Advanced Study: South Asian Languages & Civilizations. 300.00 Units.

Advanced Study: South Asian Languages & Civilizations

TAMIL COURSES**TAML 30100-30200-30300. Third-Year Tamil I-II-III.**

On the basis of a variety of readings, such as short stories, poems, excerpts from novels or non-fiction, this course addresses those issues of modern written Tamil grammar which have not been covered during the previous two years. Readings are typically selected with a view to providing important cultural information, and they are supplemented by film clips and other media. Class content may be chosen or adapted based on particular student needs. Further work on listening and speaking proficiency is also part of the course. Based on prior consultation with instructor regarding placement, this course might be an appropriate starting point for speakers of Tamil with previous knowledge (e.g., heritage students).

TAML 30100. Third-Year Tamil-1. 100 Units.

On the basis of a variety of readings, such as short stories, poems, excerpts from novels or non-fiction, this course addresses those issues of modern written Tamil grammar which have not been covered during the previous two years. Readings are typically selected with a view to providing important cultural information, and they are supplemented by film clips and other media. Class content may be chosen or adapted based on particular student needs. Further work on listening and speaking proficiency is also part of the course. Based on prior consultation with instructor regarding placement, this course might be an appropriate starting point for speakers of Tamil with previous knowledge (e.g., heritage students). Prerequisite(s): TAML 20300 or comparable level of language skills. Prior consent of instructor required.

Instructor(s): E. Annamalai Terms Offered: Autumn

Prerequisite(s): TAML 20300 or comparable level of language skills. Prior consent of instructor required.

TAML 30200. Third-Year Tamil-2. 100 Units.

On the basis of a variety of readings, such as short stories, poems, excerpts from novels or non-fiction, this course addresses those issues of modern written Tamil grammar which have not been covered during the previous two years. Readings are typically selected with a view to providing important cultural information, and they are supplemented by film clips and other media. Class content may be chosen or adapted based on particular student needs. Further work on listening and speaking proficiency is also part of the course. Based on prior consultation with instructor regarding placement, this course might be an appropriate starting point for speakers of Tamil with previous knowledge (e.g., heritage students).

Instructor(s): S. Ebeling Terms Offered: Winter

Prerequisite(s): TAML 30100 or comparable level of language skills. Prior consent of instructor required.

TAML 30300. Third-Year Tamil-3. 100 Units.

On the basis of a variety of readings, such as short stories, poems, excerpts from novels or non-fiction, this course addresses those issues of modern written Tamil grammar which have not been covered during the previous two years. Readings are typically selected with a view to providing important cultural information, and they are supplemented by film clips and other media. Class content may be chosen or adapted based on particular student needs. Further work on listening and speaking proficiency is also part of the course. Based on prior consultation with instructor regarding placement, this course might be an appropriate starting point for speakers of Tamil with previous knowledge (e.g., heritage students).

Instructor(s): E. Annamalai Terms Offered: Spring

Prerequisite(s): TAML 30200 or comparable level of language skills. Prior consent of instructor required.

TAML 30200. Third-Year Tamil-2. 100 Units.

On the basis of a variety of readings, such as short stories, poems, excerpts from novels or non-fiction, this course addresses those issues of modern written Tamil grammar which have not been covered during the previous two years. Readings are typically selected with a view to providing important cultural information, and they are supplemented by film clips and other media. Class content may be chosen or adapted based on particular student needs. Further work on listening and speaking proficiency is also part of the course. Based on prior consultation with instructor regarding placement, this course might be an appropriate starting point for speakers of Tamil with previous knowledge (e.g., heritage students).

Instructor(s): S. Ebeling Terms Offered: Winter

Prerequisite(s): TAML 30100 or comparable level of language skills. Prior consent of instructor required.

TAML 30300. Third-Year Tamil-3. 100 Units.

On the basis of a variety of readings, such as short stories, poems, excerpts from novels or non-fiction, this course addresses those issues of modern written Tamil grammar which have not been covered during the previous two years. Readings are typically selected with a view to providing important cultural information, and they are supplemented by film clips and other media. Class content may be chosen or adapted based on particular student needs. Further work on listening and speaking proficiency is also part of the course. Based on prior consultation with instructor regarding placement, this course might be an appropriate starting point for speakers of Tamil with previous knowledge (e.g., heritage students).

Instructor(s): E. Annamalai Terms Offered: Spring

Prerequisite(s): TAML 30200 or comparable level of language skills. Prior consent of instructor required.

TAML 40100-40200-40300. Fourth-Year Tamil I-II-III.

This course typically includes an introduction to Classical Tamil grammar and literature, with sample readings reaching from the oldest known Tamil literature (Sangam poetry) via bhakti poems to the magnificent courtly compositions of the high and late medieval periods. Various other types of linguistic variation may also be studied, e.g. inscriptional Tamil or dialects/regional language registers. Depending on the students' needs, an overview of Tamil literary history is also given. Native or heritage speakers of Tamil are required to have a solid knowledge of modern Tamil grammar.

TAML 40100. Fourth-Year Tamil-1. 100 Units.

This course typically includes an introduction to Classical Tamil grammar and literature, with sample readings reaching from the oldest known Tamil literature (Sangam poetry) via bhakti poems to the magnificent courtly compositions of the high and late medieval periods. Various other types of linguistic variation may also be studied, e.g. inscriptional Tamil or dialects/regional language registers. Depending on the students' needs, an overview of Tamil literary history is also given. Native or heritage speakers of Tamil are required to have a solid knowledge of modern Tamil grammar. Prerequisite(s): TAML 30300 or comparable level of language skills. Prior consent of instructor required.

Instructor(s): E. Annamalai Terms Offered: Autumn

Prerequisite(s): TAML 30300 or comparable level of language skills. Prior consent of instructor required.

TAML 40200. Fourth-Year Tamil-2. 100 Units.

This course typically includes an introduction to Classical Tamil grammar and literature, with sample readings reaching from the oldest known Tamil literature (Sangam poetry) via bhakti poems to the magnificent courtly compositions of the high and late medieval periods. Various other types of linguistic variation may also be studied, e.g. inscriptional Tamil or dialects/regional language registers. Depending on the students' needs, an overview of Tamil literary history is also given. Native or heritage speakers of Tamil are required to have a solid knowledge of modern Tamil grammar.

Instructor(s): S. Ebeling Terms Offered: Winter

Prerequisite(s): TAML 40100 or comparable level of language skills. Prior consent of instructor required.

TAML 40300. Fourth-Year Tamil-3. 100 Units.

This course typically includes an introduction to Classical Tamil grammar and literature, with sample readings reaching from the oldest known Tamil literature (Sangam poetry) via bhakti poems to the magnificent courtly compositions of the high and late medieval periods. Various other types of linguistic variation may also be studied, e.g. inscriptional Tamil or dialects/regional language registers. Depending on the students' needs, an overview of Tamil literary history is also given. Native or heritage speakers of Tamil are required to have a solid knowledge of modern Tamil grammar.

Instructor(s): E. Annamalai Terms Offered: Spring

Prerequisite(s): TAML 40200 or comparable level of language skills. Prior consent of instructor required.

TAML 40200. Fourth-Year Tamil-2. 100 Units.

This course typically includes an introduction to Classical Tamil grammar and literature, with sample readings reaching from the oldest known Tamil literature (Sangam poetry) via bhakti poems to the magnificent courtly compositions of the high and late medieval periods. Various other types of linguistic variation may also be studied, e.g. inscriptional Tamil or dialects/regional language registers. Depending on the students' needs, an overview of Tamil literary history is also given. Native or heritage speakers of Tamil are required to have a solid knowledge of modern Tamil grammar.

Instructor(s): S. Ebeling Terms Offered: Winter

Prerequisite(s): TAML 40100 or comparable level of language skills. Prior consent of instructor required.

TAML 40300. Fourth-Year Tamil-3. 100 Units.

This course typically includes an introduction to Classical Tamil grammar and literature, with sample readings reaching from the oldest known Tamil literature (Sangam poetry) via bhakti poems to the magnificent courtly compositions of the high and late medieval periods. Various other types of linguistic variation may also be studied, e.g. inscriptional Tamil or dialects/regional language registers. Depending on the students' needs, an overview of Tamil literary history is also given. Native or heritage speakers of Tamil are required to have a solid knowledge of modern Tamil grammar.

Instructor(s): E. Annamalai Terms Offered: Spring

Prerequisite(s): TAML 40200 or comparable level of language skills. Prior consent of instructor required.

TAML 47900-47901-47902. Rdgs: Advanced Tamil; Rdgs: Advanced Tamil II-III.

This course is for students who have successfully completed third- and fourth-year Tamil. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Tamil texts from any time period, country or genre. Prior consent of instructor is required.

TAML 47900. Rdgs: Advanced Tamil. 100 Units.

This course is for students who have successfully completed third- and fourth-year Tamil. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Tamil texts from any time period, country or genre. Prior consent of instructor is required. Prerequisite(s): TAML 40300

Instructor(s): E. Annamalai Terms Offered: Autumn

Prerequisite(s): TAML 40300

TAML 47901. Advanced Readings in Tamil -2. 100 Units.

This course is for students who have successfully completed third- and fourth-year Tamil. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Tamil texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): S. Ebeling Terms Offered: Winter

Prerequisite(s): TAML 47900

TAML 47902. Readings: Advanced Tamil -3. 100 Units.

This course is for students who have successfully completed third- and fourth-year Tamil. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Tamil texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): E. Annamalai Terms Offered: Spring

Prerequisite(s): TAML 47901

TAML 47901. Advanced Readings in Tamil -2. 100 Units.

This course is for students who have successfully completed third- and fourth-year Tamil. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Tamil texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): S. Ebeling Terms Offered: Winter

Prerequisite(s): TAML 47900

TAML 47902. Readings: Advanced Tamil -3. 100 Units.

This course is for students who have successfully completed third- and fourth-year Tamil. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Tamil texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): E. Annamalai Terms Offered: Spring

Prerequisite(s): TAML 47901

TAML 47904. The Metrical Language of Tamil Poetry. 100 Units.

This will be a lecture cum workshop. It will trace the history of the prosody used in Tamil literary works from the beginning to the modern from the points of its grammar, development and the demands on it from the emergence of new genres, literary themes and audience. The workshop part will consist of doing prosodic analysis of selected literary works.

Instructor(s): E. Annamalai Terms Offered: Winter

TIBETAN COURSES

TBTN 30100-30200-30300. Third-Year Tibetan I-II-III.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

TBTN 30100. Third Year Tibetan-1. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

Prerequisite(s): TBTN 20300 or consent of instructor

Instructor(s): C. Wedemeyer Terms Offered: Autumn

Prerequisite(s): TBTN 20300 or consent of instructor

TBTN 30200. Third-Year Tibetan-2. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

Instructor(s): M. Kapstein Terms Offered: Winter

Prerequisite(s): TBTN 30100 or consent of instructor

TBTN 30300. Third Year Tibetan-2. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

Instructor(s): K. Ngodup Terms Offered: Spring

Prerequisite(s): TBTN 30200 or consent of instructor

TBTN 30200. Third-Year Tibetan-2. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

Instructor(s): M. Kapstein Terms Offered: Winter

Prerequisite(s): TBTN 30100 or consent of instructor

TBTN 30300. Third Year Tibetan-2. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

Instructor(s): K. Ngodup Terms Offered: Spring

Prerequisite(s): TBTN 30200 or consent of instructor

TBTN 40100-40200-40300. Fourth-Year Tibetan I-II-III.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

TBTN 40100. Fourth-Year Tibetan I. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

Prerequisite(s): TBTN 30300 or consent of instructor

Instructor(s): C. Wedemeyer Terms Offered: Autumn

Prerequisite(s): TBTN 30300 or consent of instructor

TBTN 40200. Fourth-Year Tibetan II. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 40100 or consent of instructor

TBTN 40300. Fourth-Year Tibetan III. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods. Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 40200 or consent of instructor

TBTN 40200. Fourth-Year Tibetan II. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 40100 or consent of instructor

TBTN 40300. Fourth-Year Tibetan III. 100 Units.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods. Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 40200 or consent of instructor

TBTN 47900-47901-47902. Rdgs: Advanced Tibetan I-II-III.

Readings: Advanced Tibetan is for students who have successfully completed third year and fourth year or equivalent with placement test. The sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction includes guided readings with continuing grammar review, practice in speaking, and application of philological methods.

TBTN 47900. Readings: Advanced Tibetan I. 100 Units.

Readings: Advanced Tibetan is for students who have successfully completed third year and fourth year or equivalent with placement test. The sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction includes guided readings with continuing grammar review, practice in speaking, and application of philological methods.

Instructor(s): C. Wedemeyer Terms Offered: Autumn

Prerequisite(s): TBTN 40300

TBTN 47901. Readings: Advanced Tibetan II. 100 Units.

Readings: Advanced Tibetan is for students who have successfully completed third year and fourth year or equivalent with placement test. The sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction includes guided readings with continuing grammar review, practice in speaking, and application of philological methods.

Instructor(s): M. Kapstein Terms Offered: Winter

Prerequisite(s): TBTN 47900

TBTN 47902. Readings: Advanced Tibetan III. 100 Units.

Readings: Advanced Tibetan is for students who have successfully completed third year and fourth year or equivalent with placement test. The sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction includes guided readings with continuing grammar review, practice in speaking, and application of philological methods.

Equivalent Course(s): HREL 52402

TBTN 47901. Readings: Advanced Tibetan II. 100 Units.

Readings: Advanced Tibetan is for students who have successfully completed third year and fourth year or equivalent with placement test. The sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction includes guided readings with continuing grammar review, practice in speaking, and application of philological methods.

Instructor(s): M. Kapstein Terms Offered: Winter

Prerequisite(s): TBTN 47900

TBTN 47902. Readings: Advanced Tibetan III. 100 Units.

Readings: Advanced Tibetan is for students who have successfully completed third year and fourth year or equivalent with placement test. The sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction includes guided readings with continuing grammar review, practice in speaking, and application of philological methods. Equivalent Course(s): HREL 52402

URDU COURSES**URDU 30100-30200-30300. Third-Year Urdu I-II-III.**

This third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history.

URDU 30100. Third-Year Urdu-1. 100 Units.

This third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history.

Instructor(s): M. Alam Terms Offered: Autumn

Prerequisite(s): URDU 20300 or consent of instructor

URDU 30200. Third-Year Urdu-2. 100 Units.

PQ: Second year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.

Instructor(s): M. Alam Terms Offered: Winter

Prerequisite(s): URDU 30100 or consent of instructor

URDU 30300. Third-Year Urdu-3. 100 Units.

PQ: Second year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.

Instructor(s): M. Alam Terms Offered: Spring

Prerequisite(s): URDU 30200 or consent of instructor

URDU 30200. Third-Year Urdu-2. 100 Units.

PQ: Second year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.

Instructor(s): M. Alam Terms Offered: Winter

Prerequisite(s): URDU 30100 or consent of instructor

URDU 30300. Third-Year Urdu-3. 100 Units.

PQ: Second year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.
 Instructor(s): M. Alam Terms Offered: Spring
 Prerequisite(s): URDU 30200 or consent of instructor

URDU 37100. Urdu in the 21st Century. 100 Units.

This course is intended to provide continued language teaching beyond the second-year course through reading and analysis of authentic contemporary materials. It differs from the regular third-year class/sequence in that it will focus on contemporary issues and texts (both print and electronic) rather than the literary canon. Readings will be selected by students and the instructor in consultation and will include a variety of genres and subject matter – to be determined by the fields of interest/research of the students enrolled.
 Instructor(s): E. Bashir Terms Offered: Autumn
 Prerequisite(s): Second year Urdu sequence or its equivalent, and permission of the instructor.

URDU 37200. Urdu in the 21st Century-2. 100 Units.**URDU 37300. URDU in the 21st Century. 100 Units.****URDU 40100-40200-40300. Fourth-Year Urdu I-II-III.**

This third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history.

URDU 40100. Fourth Year Urdu-1. 100 Units.

This third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history.

Instructor(s): M. Alam

Prerequisite(s): URDU 30300 or consent of instructor

URDU 40200. Fourth-Year Urdu-2. 100 Units.

PQ: Third year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.

Instructor(s): M. Alam

Prerequisite(s): URDU 40100 or consent of instructor

URDU 40300. Fourth-Year Urdu-3. 100 Units.

PQ: Third year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.

Instructor(s): M. Alam

Prerequisite(s): URDU 40200 or consent of instructor

URDU 40200. Fourth-Year Urdu-2. 100 Units.

PQ: Third year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.

Instructor(s): M. Alam

Prerequisite(s): URDU 40100 or consent of instructor

URDU 40300. Fourth-Year Urdu-3. 100 Units.

PQ: Third year Urdu or comparable level of language skills. The third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history. Muzaffar Alam, Autumn-Winter-Spring.

Instructor(s): M. Alam

Prerequisite(s): URDU 40200 or consent of instructor

URDU 47900-47901-47902. Rdgs: Advanced Urdu I-II-III.

This course is for students who have successfully completed third- and fourth-year Urdu. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Urdu texts from any time period, country or genre. Prior consent of instructor is required.

URDU 47900. Readings: Advanced Urdu I. 100 Units.

This course is for students who have successfully completed third- and fourth-year Urdu. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Urdu texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): M. Alam Terms Offered: Autumn

Prerequisite(s): URDU 40300

URDU 47901. Readings: Advanced Urdu II. 100 Units.

This course is for students who have successfully completed third- and fourth-year Urdu. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Urdu texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): M. Alam Terms Offered: Winter

Prerequisite(s): URDU 47900

URDU 47902. Readings: Advanced Urdu III. 100 Units.

This course is for students who have successfully completed third- and fourth-year Urdu. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Urdu texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): M. Alam Terms Offered: Spring

Prerequisite(s): URDU 47901

URDU 47901. Readings: Advanced Urdu II. 100 Units.

This course is for students who have successfully completed third- and fourth-year Urdu. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Urdu texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): M. Alam Terms Offered: Winter

Prerequisite(s): URDU 47900

URDU 47902. Readings: Advanced Urdu III. 100 Units.

This course is for students who have successfully completed third- and fourth-year Urdu. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Urdu texts from any time period, country or genre. Prior consent of instructor is required.

Instructor(s): M. Alam Terms Offered: Spring

Prerequisite(s): URDU 47901



DEPARTMENT OF THE VISUAL ARTS

Chair

- Matthew Jesse Jackson

Professors

- Theaster Gates
- Laura Letinsky, Cinema and Media Studies
- Jessica Stockholder

Associate Professors

- Matthew Jesse Jackson, Art History
- William Pope.L
- Jason Salavon
- David Schutter
- Catherine Sullivan

Assistant Professors

- Carol Jackson, Harper Schmidt Fellow

Professor of Practice in the Arts

- Geof Oppenheimer

Provost's Postgraduate Fellow

- Julia Phillips

Lecturers

- Bethany Collins
- Katherine Desjardins
- Amber Ginsburg
- Ellie Hogeman
- Nicole Mauser
- Scott Wolniak

Affiliates

- Dominique Bluher, Cinema and Media Studies
- Seth Brodsky, Music
- Bill Brown, English
- Darby English, Art History
- Judy Hoffman, Cinema and Media Studies
- W. J. T. Mitchell, English, Art History
- D.N. Rodowick, Cinema and Media Studies

Associates

- Susanne Ghez

Emeritus Faculty

- Charles Cohen, Art History
- Herbert George
- Elizabeth Helsinger, English, Art History
- Vera Klement
- Thomas Mapp
- Robert C. Peters

The Department of Visual Arts (DoVA), a department within the Humanities Division at the University of Chicago, and situated in The Reva and David Logan Center for the Arts (<http://arts.uchicago.edu/content/logan-center>), is proud to offer a Masters of Fine Arts.

This MFA program is distinguished in its focused attention on understanding how the pluralism of today's art making practices relate to one another and in creating conversations that bridge between DoVA and other areas of study at the University of Chicago. Our faculty are diverse in their interests, deeply engaged with their own work, and are committed teachers engaged in a lively and sustained dialogue within the department.

Our students work in sculpture, photography, painting, installation, performance, video and new media. Students are admitted to the program based on the quality of the portfolio and the level of interest and capacity in engaging this interdisciplinary program within a university environment. The faculty focus on working with students to develop their own work and enabling them to leave the University with the tools to support a lifetime of art making. As part of this process, the department encourages students to explore not only the artistic issues pertinent to their work, but also the theoretical, social and historical issues that intersect and bracket it.

The MFA is a two-year program (six quarters), comprised of 18 courses. Many of these course credits are earned through the development of individual work in conversation with the faculty.

First and second year students work together to articulate their work and to sharpen their skills of critical thinking and writing. Students come to the program with diverse intellectual, cultural and artistic backgrounds and different art making practices. We all work together to articulate a common language with which to discuss and make art in this critical and supportive community.

As part of the MFA program, DoVA hosts a lively visiting artist program under the auspices of the Open Practice Committee (<http://dova.uchicago.edu/visiting-artists>) (OPC). In addition The University of Chicago provides an enormously rich intellectual environment full of engaging lectures and workshops in all areas of study. Our students are often interested in events hosted by the Center for Gender Studies, the Center for the Study of Race, Politics, and Culture, the Mass Culture Studies Workshop, the Department of Cinema and Media Studies, and the Department of Art History. The university also offers workshops that focus on professional and pedagogical issues to assist students in preparing for a career in the arts. Please see our Resources (<http://dova.uchicago.edu/resources>) page for more information.

CURRICULUM

MFA students register for 300 credits (three courses at 100 credits each) per quarter. A total of 1800 credits, or eighteen courses, is required for the degree.

The basic requirements for the MFA are listed below:

1. Graduate Studio Project (9 Courses / 900 Credit Hours)

Students receive course credit for time spent in their studio developing their work. As part of this requirement students will present work to faculty and students for critique regularly throughout the year. Students register for at least 100 credit hours of Graduate Studio Project (ARTV 40000) per quarter, and may register for up to 300 hours per quarter provided that they are on track for meeting their other course requirements (see Graduate Seminars and Electives).

2. Graduate Seminars (3 Courses / 300 Credit Hours)

In order to provide a core of common intellectual experience, all students are required to take three quarters of the Graduate Seminar in Visual Arts (ARTV 39200) during their first year. The content of these seminars varies with instructors, but may focus on many different issues in contemporary theory and criticism.

3. Electives (6 Courses / 600 Credit Hours)

Students are required to take six graduate-level electives. At least three of the six electives must either be academic (i.e. non-studio based) or originate in departments outside of DoVA.

4. Thesis Presentation

In the fall quarter of the second year, each student will work with a committee of two faculty members who assist in the preparation of the thesis work. In the final quarter of the program each degree candidate presents studio work in an MFA exhibition. In addition to this exhibition, students will be expected to submit a short but focused written abstract of their work.

5. Standards Of Performance

Each graduate student must maintain high standards of engagement and achievement in studio and academic performance, including evidence of substantial growth in their work.

For additional information, please email dova@uchicago.edu or visit our website. (<http://dova.uchicago.edu>)

HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and

Financial Aid, with instructions, deadlines and department specific information is available online at: <http://humanities.uchicago.edu/students/admissions.html>.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at <https://internationalaffairs.uchicago.edu>, or call them at (773) 702-7752.

Additional information about financial aid and the admissions process can be found on the DoVA website (<http://dova.uchicago.edu/graduate>).

VISUAL ARTS COURSES

ARTV 30008. Ways of Curating and Collecting. 100 Units.

This seminar takes stock of contemporary currents in curating and collecting practices at a time when we are experiencing rapid expansion of the museum sector internationally, and witnessing the growing ubiquity of "curation" within the spheres of leisure, culture, entertainment and tourism. Using institutions across campus, the city of Chicago and beyond as our primary locus, we will explore curatorial and collecting strategies employed by a variety of visual arts institutions and platforms from the scale of the single-room/single curator gallery, to the museum and the international biennial. We will consider how curatorial and exhibition-making practices have evolved from the latter half of the 20th century to the present day. We will consider the socio-cultural and political implications of curatorial work, and reflect on the shifting status of the art object within collecting and non-collecting institutions. Together we will explore significant curatorial projects at a local, national and international level; we will undertake site visits as well as play host to visiting curators, artists and thinkers. Course readings will feature the writings of seminal international curators as well as selections from historians and theorists in the field of curatorial studies. Students will work through a series of independent and collaborative assignments as well as a final project that integrates curatorial theory and practice.

Instructor(s): Y. Umolu Terms Offered: Winter

Equivalent Course(s): ARTV 20008, ARTH 26110, ARTH 36110

ARTV 30011. Control Art. 100 Units.

This class is an investigation into the relationships between the forces of community building, aesthetics and social control using a selective history of art and art systems associated with the People's Republic of China as a case study. Class time in Chicago will run four weeks, during academic weeks seven through ten of spring quarter and culminate in a required trip to Beijing June 15th -28th. Using wide-ranging sources, the class will speak to the ways that groups and governments alike have used art and art likes things to influence, coerce and inspire people and meaning. In summation the class as the grand question of how contemporary art production has worked hand-in-hand with the development of a modern aesthetic state. Over the past two decades, conditions of China have coalesced to produce various forms that are both familiar and novel. Political and artistic centers of social and economic power that used to be differently concentrated have shifted such that presently in China there is a flowering, or explosion--the appropriateness of the metaphor dependent upon the perspective taken. The PRC provides a fantastic case study of art's relationship to social, economic, and political systems. Here, because of different historical and philosophical conditions, ideas about originality, the copy, the spheres public and private, labor, and pleasure, have coalesced into distinct forms and artistic production.

Terms Offered: Spring

Equivalent Course(s): ARTV 20011

ARTV 30140. Aesthetic Ecologies. 100 Units.

What would an intellectual history of the environment look like when told from the perspective of the literature of art history? The geographer Friedrich Ratzel, who first began using the term "Umwelt" ("environment") in a systematic way, claimed that, up to the end of the 19th century, the idea of environment had been primarily discussed not in scientific contexts but rather in aesthetic ones, by "artistically predisposed thinkers." In this course, we will take Ratzel's claim seriously and aim to recuperate the aesthetic side of theories of environment across diverse areas such as: notions of landscape ("the picturesque"); aesthetic and biological theories of milieu (Haeckel's "ecology," Taine's "milieu," Uexküll's "Umweltlehre"); Warburg's cultural history; the "sculpture of environment" (Boccioni); the "space-body" in modern dance (Laban); artworks-as-environments in spatial installations. This course is about artworks that continue beyond their material confines into the space environing them. We will focus on evocations of air as the material space surrounding an artwork in texts that thematize the continuity between artwork as image and material object. Additional materials include: J.W. v. Goethe, Jacob Burckhardt, Carl Justi, Adolf v. Hildebrand, Camillo Sitte, Alois Riegl, R.M. Rilke, M. Heidegger, and others.

Instructor(s): Margareta Ingrid Christian Terms Offered: Spring

Prerequisite(s): Open to all students. MAPH students welcome. Interested undergraduates please email instructor:michristian@uchicago.edu.

Equivalent Course(s): GRMN 35140

ARTV 30203. Biography, History, Art: Documenting Blakelock. 100 Units.

This Gray Center sponsored research practicum is tied to a film project with documentary-maker and Mellon Collaborative Fellow Ric Burns about outsider artist Ralph Blakelock. America's van Gogh, Blakelock created art far ahead of his time, went mad, and spent nearly twenty years in an asylum before emerging into the glare of flashbulbs as the most sought-after painter of the 1910s, only to end his life as victim of a con game. In between, he sojourned with the Sioux, hobnobbed with Gilded Age millionaires, channeled Longfellow and Mendelssohn in his art, struggled in the emergent New York "art world", played vaudeville piano, and became one of the first major figures in modern celebrity-driven mass media. How best to capture this kaleidoscopic life and Blakelock's dizzying art in a documentary is the creative challenge of the seminar. Our focus will be on Blakelock's *Ghost Dance/The Vision of Life*. Art Institute conservators, assisted by chemistry department Professor Steven Sibener, will use scientific imaging to see inside the painting, whose provenance and context of production and reception need to be researched. Participants will be assigned to specific topics based on area of expertise. The course should be of particular interest to students in DOVA, Art History, History, English, Psychology, Chemistry, Cinema Studies, and Anthropology.

Instructor(s): Lawrence Rothfield; Ric Burns Terms Offered: Spring

Prerequisite(s): Instructor consent required. Open to students at all levels, undergraduate and graduate. Email a letter of interest to Professor Rothfield: lary@uchicago.edu.

Equivalent Course(s): CMST 28265, CMST 38265, ENGL 26522, ENGL 36522, ARTV 20203

ARTV 30212. Performance Lab: Non-Fiction Sources. 100 Units.

How do you create a solo or group performance from sources other than a play? How do you build original performance out of personal stories, interviews, research, an historical or current event? What are the methods for collecting non-fictional material, learning about someone else's experience, uncovering the complexities of something that has occurred? And how does one compose that material into a staged event? This course explores what constitutes a story, the blurred boundaries between what's 'real' and what's 'fiction', the status of interpretation, the stakes of performing as oneself and as other people, and the ethics of turning lived experience into staged performance. Students will work individually and collaboratively on creating original performances based on topics of their choice, in addition to viewing live and recorded performances, reading essays and scripts, and meeting visiting artists.

Instructor(s): L. Danzig, E. Lansana Terms Offered: Spring

Note(s): Attendance at first class is mandatory.

Equivalent Course(s): TAPS 24902, HMRT 34902, TAPS 34902, HMRT 24902, ARTV 20212

ARTV 30213. Contemporary Political Strategies in Performance. 100 Units.

The emphasis of the course is on strategies-in the words of curator Florian Malzacher, "artistic strategies in politics, and political strategies in art." In moments of political struggle, what can art DO, and what can it not? We will be combining case studies with theoretical background, examining strategies like occupation, participation, parafiction, 'technologies of care,' détournement and the art strike. Students will have the opportunity to put some of these approaches to the test by designing one or more local interventions according to the interests of the group.

Instructor(s): A. Dorsen Terms Offered: Spring

Equivalent Course(s): TAPS 25515, TAPS 35515, ARTV 20213, MAAD 24515

ARTV 30214. Staging the Internet. 100 Units.

The theater has often been used as a means to embody psychic spaces, from Medieval mystery plays and other allegorical works to Richard Foreman's attempt to give theatrical form to consciousness itself. This practice-based lab class will propose to 'stage the internet' - what techniques and strategies can we develop to give tangible shape to the virtual world? Our explorations will be catalyzed by readings on data and interfaces, networks and protocols, procedural/algorithmic art, digital labor, and competing notions of the virtual.

Instructor(s): A. Dorsen Terms Offered: Spring

Prerequisite(s): Course is designed for advanced undergraduates and graduates. Previous coursework in theater & performance studies or related fields required.

Note(s): Attendance at first class meeting is mandatory.

Equivalent Course(s): ARTV 20214, TAPS 26530, MAAD 24530, TAPS 46530

ARTV 30805. Framing, Re-framing, and Un-framing Cinema. 100 Units.

By cinema, we mean the art of the moving image, which is not limited to the material support of a flexible band called film. This art reaches back to early devices to trick the eye into seeing motion and looks forward to new media and new modes of presentation. With the technological possibility of breaking images into tiny pixels and reassembling them and of viewing them in new way that this computerized image allows, we now face the most radical transformation of the moving image since the very beginnings of cinema. A collaboration between the OpenEndedGroup (Marc Downie and Paul Kaiser), artists who have created new modes of the moving image for more than decade, and film scholar Tom Gunning, this course will use this moment of new technologies to explore and expand the moving image before it becomes too rigidly determined by the powerful industrial forces now propelling it forward. This course will be intensely experimental as we see how we might use new computer algorithms to take apart and re-experience classic films of the past. By using new tools, developed for and during this class, students will make new experiences inside virtual reality environments for watching, analyzing, and recombining films and that are unlike any other. These tools will enable students, regardless of previous programming experience, to participate in this crucial technological and cultural juncture.

Equivalent Course(s): CMST 27805, ARTV 20805, CMST 37805

ARTV 31001. Figure Drawing: Trans/Figuration. 100 Units.

Figure drawing is an experience that engages us visually, physically, emotionally, and psychologically. This many-faceted relationship is examined through the use of a variety of traditional and experimental materials, set-ups, and drawing methods. Assignments and class critiques investigate different models of stylistic invention, ranging from realism to comic expression. This studio class includes readings, field trips, and class projects that address the human form as source for developing your own visual responses to related issues—such as identity, narrative, and social critique.

Instructor(s): K. Desjardins Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 21001

ARTV 31006. The Zine as Art Theory and Practice. 100 Units.

The Zine as Art Theory and Practice is a seminar/studio hybrid that combines reading, thinking, and making. Embracing the vibrant history and short turn-around time of the artist magazine or zine, course readings are prompts for you to create your own magazines. Rather than slick glossy commercial pages, your projects will be in the lineage of the hand-drawn, the doodle, the monotype, the playbill, the Xerox, and the collage. Your magazines are a space for you to combine thoughts, images, questions, speculations, manifestos, ambivalences, rants, passions, characters and ideas.

Instructor(s): A. Ginsburg Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200 or 10300

Equivalent Course(s): MAAD 21006, ARTV 21006

ARTV 31501. Introduction to Printmaking. 100 Units.

An introduction to basic printmaking techniques, including monoprint, intaglio (drypoint), planographic, and relief printing. Printmaking will be explored as a "bridge medium": a conduit between drawing, painting, and sculpture. Emphasis will be placed upon investigating visual structures through "calculated spontaneity" and "controlled accidents," as well as on the serial potential inherent in printmaking, as opposed to the strictly technical aspects of this medium.

Instructor(s): K. Desjardins Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 21501

ARTV 31701. Conceptual Drawing. 100 Units.

When does a drawing become an object rather than a picture? How can a line leave the page and be made as an action in the world? Can a design tell a story? These questions and many others will guide course work, addressing the history of drawing, its contemporary condition as its potential for presenting personal ideas and innovative new forms. Art historical examples and non-art formats such as maps, instructional graphics and schematics will be introduced as models for weekly assignments and longer-term projects.

Instructor(s): S. Wolniak Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200 or 10300

Equivalent Course(s): ARTV 21701

ARTV 31702. Drawing Concepts. 100 Units.

This course will focus on expanding the definition and practice of drawing. Studio work will engage traditional, spatial and process-oriented mark making in order to materialize thematically driven projects. Emphasis will be placed equally on the formal concerns of subject, material, and technique as well as the ability to effectively convey one's concept. Projects will include weekly and longer-term assignments, in addition to critique. Participation in field trips is required.

Instructor(s): B. Collins Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200 or 10300

Equivalent Course(s): ARTV 21702

ARTV 31800. Studio Practice. 100 Units.

This course considers a variety of methods, processes and media to explore conceptual issues pertinent to a contemporary art practice. Through research, material investigation, experimentation and revision, students will develop their own approach to a daily self-directed practice. Projects will include weekly and longer-term assignments, individual and collaborative work. We will also look at the practices of established artists for possible models. Participation in several field trips is required.

Instructor(s): B. Collins Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200 or 10300

Equivalent Course(s): ARTV 21800

ARTV 32000. Introduction to Sculpture. 100 Units.

This course introduces the technical fundamentals of sculptural practice. Using basic introductions to welding, basic woodworking and metal fabrication students will undertake assignments designed to deploy these new skills conceptually in their projects. Lectures and reading introduce the technical focus of the class in various historical, social and economic contexts. Discussions and gallery visits help engender an understanding of sculpture within a larger societal and historical context.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300.

Equivalent Course(s): ARTV 22200

ARTV 32200-32202. Introduction to Painting I-II.

This studio course introduces students to the fundamental elements of painting (its language and methodologies) as they learn how to initiate and develop an individualized investigation into subject matter and meaning. This course emphasizes group critiques and discussion. Courses taught concurrently.

ARTV 32200. Introduction to Painting I. 100 Units.

This studio course introduces students to the fundamental elements of painting (its language and methodologies) as they learn how to initiate and develop an individualized investigation into subject matter and meaning. This course emphasizes group critiques and discussion.

Terms Offered: Winter

Equivalent Course(s): ARTV 22000

ARTV 32202. Introduction to Painting II. 100 Units.

No description available

Terms Offered: Winter

Equivalent Course(s): ARTV 22002

ARTV 32202. Introduction to Painting II. 100 Units.

No description available

Terms Offered: Winter

Equivalent Course(s): ARTV 22002

ARTV 32304. Ceramics: Surface and Content. 100 Units.

Ceramics and painting have a long connected history. In *Natural History* (77-79 AD), Pliny the Elder attempts to trace the history of portraiture. Butades the potter, brokenhearted at the departure of his soon-to-be-married daughter, catches a glimpse of her profile on the wall from the reflection cast by a candle and traces the outline with some clay. In the retelling of this narrative, this act of doubling is attributed, variously, to the origin of portrait painting and to the origin of the portrait modeling, depending on the focus of the outline as an act done by a brush or the plastic actions of filling in the trace. While historically apocryphal, this account captures the historical dance between ceramics as a surface for painting and material to form shape. In this course, you will bring surface and form together to create a space and site of content. While using the inherently plastic nature of clay to create shape, the workshop format of this course will instrumentalize the surface to test and play with color and line. Thinking of ceramics as a flexible surface for archival paint, also known as glaze, this studio course will test glazes, oxides, decals, and multi-fired surfaces. Assignments will be geared towards experimental results that allow students to further their own interests and practices.

Instructor(s): A. Ginsburg Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 22304

ARTV 32314. Ceramics: Adaptive Practices. 100 Units.

Ceramics has accompanied long the adaptive dance of human survival for at least 30,000 years. Sitting in proximity to food, architecture, death rights and more, this course will think forward with the material. What forms of adaptivity are currently required? This is a course in speculative fiction with the material of clay in all its forms, fix and unfix, working through wet, dry, fired, and glazed.

Instructor(s): A. Ginsburg Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200 or 10300

Equivalent Course(s): ARTV 22314

ARTV 32500. Computational Imaging. 100 Units.

This studio course introduces fundamental tools and concepts used in the production of computer-mediated artwork. Instruction includes a survey of standard digital imaging software and hardware (i.e., Photoshop, scanners, storage, printing, etc.), as well as exposure to more sophisticated methods. We also view and discuss the historical precedents and current practice of media art. Using input and output hardware, students complete conceptually driven projects emphasizing personal direction while gaining core digital knowledge.

Instructor(s): J. Salavon Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): CMST 28800, ARTV 22500, MAAD 22500

ARTV 32501. Art & Machine Intelligence. 100 Units.

Course description coming soon

Instructor(s): J. Salavon Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200 or 10300

Equivalent Course(s): ARTV 22501

ARTV 33801. Video. 100 Units.

This is a production course geared towards short experimental works and video within a studio art context.

Instructor(s): S. Wolniak Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200 or 10300

Equivalent Course(s): ARTV 23801, MAAD 23801

ARTV 33804. Experimental Animation: Exploring Manual Techniques. 100 Units.

Individually directed video shorts will be produced in this intensive studio course. Experimental and improvised approaches to animation and motion picture art will focus on analog and material techniques, with basic digital post-production also being introduced. Early and experimental cinema, puppetry and contemporary low-tech animation will be presented as formal and technical examples.

Instructor(s): S. Wolniak Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 23804

ARTV 33808. Introduction to 16mm Filmmaking. 100 Units.

The goal of this intensive laboratory course is to give its students a working knowledge of film production using the 16mm gauge. The course will emphasize how students can use 16mm technology towards successful cinematography and image design (for use in both analog and digital postproduction scenarios) and how to develop their ideas towards constructing meaning through moving pictures. Through a series of group exercises, students will put their hands on equipment and solve technical and aesthetic problems, learning to operate and care for the 16mm Bolex film camera; prime lenses; Sekonic light meter; Sachtler tripod; and Arri light kit and accessories. For a final project, students will plan and produce footage for an individual or small group short film. The first half the class will be highly structured, with demonstrations, in-class shoots and lectures. As the semester continues, class time will open up to more of a workshop format to address the specific concerns and issues that arise in the production of the final projects. This course is made possible by the Charles Roven Fund for Cinema and Media Studies.

Instructor(s): T. Comerford Terms Offered: Winter

Equivalent Course(s): CMST 28921, MAAD 23808, ARTV 23808, CMST 38921

ARTV 33809. Experimental Animation: Digital and Camera-less Production. 100 Units.

Through digital and camera-less production techniques such as scanning, signal manipulation, and appropriation, this course will emphasize image construction, digital effects, and post-production for creation of animated art. It can function as a continuation of Experimental Animation: Exploring Manual Techniques or be a stand alone course. Early video effects and image processing, and a wide variety of digital and abstract animation will be presented as formal and technical examples.

Instructor(s): S. Wolniak Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200 or 10300.

Equivalent Course(s): ARTV 23809, MAAD 23809

ARTV 33815. Minimalist Experiment in Film and Video. 100 Units.

This multilevel studio will investigate minimalist strategies in artists' film and video from the late 1960s to the present day. Emphasis will be placed on works made with limited means and/or with "amateur" formats such as Super-8 and 16mm film, camcorders, Flip cameras, SLR video, and iPhone or iPad. Our aim is to imagine how to produce complex results from economical means. Important texts will be paired with in class discussion of works by artists such as Andy Warhol, Yoko Ono, Kurt Kren, Jack Goldstein, Larry Gottheim, Bruce Baillie, James Benning, John Baldessari, Morgan Fisher, Stan Douglas, Matthew Buckingham, Sam Taylor-Wood, and others.

Instructor(s): D.N. Rodowick Terms Offered: Autumn

Equivalent Course(s): CMST 38006, CMST 28006, MAAD 23805, ARTV 23805

ARTV 33900. Drawing. 100 Units.

This intensive multilevel studio course is dedicated to investigations of genre, technique, and format in relation to subject matter and individual expression. Guided and self-directed experiments are used to develop visual work within conceptual and thematic frameworks. Art historical examples and contemporary strategies in two-dimensional art are presented as models. Students are expected to produce a body of work consisting of studies, sketches, and finished projects in a range of scales and materials. Classes are dedicated to studio work, lectures, critiques, and field trips.

Instructor(s): B. Collins Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 23900

ARTV 33930. Documentary Production I. 100 Units.

Documentary Video Production focuses on the making of independent documentary video. Examples of various modes of documentary production will be screened and discussed. Issues embedded in the genre, such as the ethics, the politics of representation, and the shifting lines between "the real" and "fiction" will be explored. Story development, pre-production strategies, and production techniques will be our focus, in particular—research, relationships, the camera, interviews and sound recording, shooting in available light, working in crews, and post-production editing. Students will work in crews and be expected to purchase a portable hard drive. A five-minute string-out/rough-cut will be screened at the end of the quarter. Students are strongly encouraged to take Doc Production 2 to complete their work.

Instructor(s): J. Hoffman Terms Offered: Autumn

Note(s): Prior or concurrent enrollment in CMST 10100 recommended for undergraduate students.

Equivalent Course(s): HMRT 25106, ARTV 23930, CMST 23930, HMRT 35106, MAAD 23930, CMST 33930

ARTV 33931. Documentary Production II. 100 Units.

Documentary Video Production II focuses on the shaping and crafting of a non-Fiction video. Enrollment will be limited to those students who have taken Documentary Production I. The class will discuss issues of ethics, power, and representation in this most philosophical and problematic of genres. Students will be expected to write a treatment outline detailing their project and learn about granting agencies and budgeting. Production techniques will concentrate on the language of handheld camera versus tripod, interview methodologies, microphone placement including working with wireless systems and mixers, and lighting for the interview. Post-production will cover editing techniques including color correction and audio sweetening, how to prepare for exhibition, and distribution strategies.

Instructor(s): J. Hoffman Terms Offered: Winter

Prerequisite(s): CMST 23930, HMRT 25106, or ARTV 23930

Equivalent Course(s): CMST 33931, CMST 23931, HMRT 35107, ARTV 23931, HMRT 25107, MAAD 23931

ARTV 34000. Introduction to Black and White Film Photography. 100 Units.

Photography is a familiar medium due to its ubiquitous presence in our visual world, including popular culture and personal usage. In this course, students learn technical procedures and basic skills related to the 35mm camera, black and white film, and print development. They also begin to establish criteria for artistic expression. We investigate photography in relation to its historical and social context in order to more consciously engage the photograph's communicative and expressive possibilities. Course work culminates in a portfolio of works exemplary of the student's understanding of the medium. Field trips required.

Instructor(s): E. Hogeman Terms Offered: Autumn Winter

Prerequisite(s): ARTV 10100, 10200 or 10300.

Note(s): Students need their own 35mm film camera.

Equivalent Course(s): ARTV 24000

ARTV 34004. Introduction to Color Photography. 100 Units.

In this course students learn technical procedures and basic skills related to camera operation, color editing workflows, and inkjet printing. Students interested in working with film will learn how to make inkjet prints from high resolution scans from 35mm negatives. Through readings, discussions, and field trips we will investigate color photography in relation to its historical and social context in order to more consciously engage the contemporary photograph's communicative and expressive possibilities. Course work culminates in a portfolio of works exemplary of the student's understanding of the medium. Students need their own DSLR camera (with manual settings) or a 35mm film camera.

Instructor(s): E. Hogeman Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200 or 10300

Note(s): Students need their own DSLR camera (with manual settings) or a 35mm film camera.

Equivalent Course(s): ARTV 24004

ARTV 34201. Collage. 100 Units.

This studio course explores collage as a means for developing content and examining complex cultural and material relationships. Projects and assigned texts outline the history of collage as a dynamic art form with a strong political dimension, as well as critically addressing how it is being used today.

Instructor(s): S. Wolniak Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 24201

ARTV 34210. Multi-media Studio: The Aleatoric. 100 Units.

ale-a-tor-ic: adj \#ā-lē-ə-#t#r-ik: characterized by chance or indeterminate elements. This studio course addresses how artists throughout time and across cultures have embraced chance and "randomness" as an integral part of the creative process. Through a series of studio projects, you will be challenged to explore how "official" Western aesthetic canons of taste (such as artistic skill, control, and "genius") were brought into question through chance and aleatoric strategies, particularly during the 20th century. This opened doors to experimentation with unorthodox methodologies, exploration of the unconscious, re-consideration of so-called "outsider" art-and more. Readings, discussions, and field trips put these practices into cultural and theoretical context. Although this course employs drawing-based tools for developing ideas, you will be afforded ample room to expand beyond 2D-into sculpture, video, installation, photography, performance, and/or hybrids forms-in order to realize a clear and contemporary response to our theme as a final project.

Instructor(s): K. Desjardins Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200, or 10300

Note(s): All media and levels welcome.

Equivalent Course(s): ARTV 24210

ARTV 34265. Best in Show: Art History as Exhibition History. 100 Units.

In this course, I propose a reading of post-war art history as seen, in part,through the periodical prism of one of the field's most important, signature events - the five-yearly Documenta exhibition in Kassel, Germany. Starting with the founding 1955 edition organized by Arnold Bode and ending with the 2017 edition which I worked on as a curator, we will discuss one chapter of Documenta's history per class alongside related events like the Venice and Sao Paulo biennials and Skulptur. Projekte Münster, touching upon such key issues of contemporary art practice and theory as the dynamics of globalization, identity politics, the vagaries of market influence, history and memory and the pressures of the social realm on aesthetic experience. As a history of exhibition making and curatorial practice, the course will also draw on recent developments in museum culture and the everyday politics of the art world's various institutions, and will be recounted in part from the perspective of exhibition-making experience. The class will consist of hands-on curatorial exercises, as well as writing and reading assignments that mirror and follow the 64-year arc of our historical periodization.

Instructor(s): D. Roelstraete Terms Offered: Spring

Equivalent Course(s): ARTH 36791, ARTH 26791, ARTV 24265

ARTV 34267. Architecture of Memory. 100 Units.

This architecture studio course will explore the concept of spaces created as memorials or for the purpose of holding or preserving memories. Design projects and spatial concepts will be the main focus for the class. Students will also research and critique existing built projects and visit spaces around the city to form a basis for understanding and analyzing architecture. Students will generate a portfolio of 2D and 3D spatial explorations throughout the quarter. For final design projects, students will choose real sites and will create a design for a memorial for an aspect of social history of the South Side and/or the Washington Park neighborhood of Chicago. Visits to exhibitions around Chicago and current events stories will serve as starting points for project subjects. Students are required to attend the first seminar to enroll in the course. Excursions across the city will occur during regular meeting times, but a make-up option will be outlined and permitted. Though basic tools and materials for model making will be available for sharing during studio or through a tool library, some students may find it beneficial to obtain their own items for use outside of class time and to supplement what is provided.

Instructor(s): N. Bharani Terms Offered: Winter

Note(s): Excursions across the city will occur during regular meeting times, but a make-up option will be outlined and permitted. Though basic tools and materials for model making will be available for sharing during studio or through a tool library, some students may find it beneficial to obtain their own items for use outside of class time and to supplement what is provided.

Equivalent Course(s): ARTV 24267, ARTH 34267, ARTH 24267

ARTV 34403. Advanced Photography. 100 Units.

The goal of this course is to develop students' investigations and explorations in photography, building on beginning level experience and basic facility with this medium. Students pursue a line of artistic inquiry by participating in a process that involves experimentation, reading, gallery visits, critiques, and discussions, but mostly by producing images. Primary emphasis is placed upon the visual articulation of the ideas of students through their work, as well as the verbal expression of their ideas in class discussions, critiques, and artist's statements. As a vital component of articulating ideas and inquiry, students will refine their skills, e.g., black and white or color printing, medium or large format camera usage, or experimenting with light-sensitive materials.

Instructor(s): L. Letinsky Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200, or 10300; and 24000.

Note(s): Camera and light meter required.

Equivalent Course(s): ARTV 24403

ARTV 34550. Shopcraft: Methods and Materials. 100 Units.

Designed as a complementary course to the DOVA sculpture sequence, Shopcraft explores the tools and techniques available to students in the wood shop. Topics covered include shop safety; the properties of woods; the planning and material selection process for sculpture, furniture, and other woodworking applications; the care and use of hand tools; and interpreting and creating scale drawings and conceptual plans. A series of small projects designed to challenge and expand students' design, drafting, and woodworking skills are assigned. In addition, students are invited to incorporate projects from sculpture classes or their individual studio practice into the course.

Instructor(s): D. Wolf Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 24550

ARTV 36214. On Art and Life. 100 Units.

This course is a multidisciplinary intensive into the ways in which artistic production is dependent on and part of larger cultural tropes. Utilizing contemporary culture as a framework, how does art form connective tissues with the worlds that happen outside of the artist's studio? Visual art is a communicative form that requires subject matter, and this course will investigate the myriad of ways that artists mine culturally meaningful materials, forms, and images as both subjects and as palette. Participation in several field trips and out-of-class film screenings is required. Reference materials are drawn from a variety of disciplines.

Instructor(s): G. Oppenheimer Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 26214

ARTV 36215. Comedy Central 2: The Body's Genres. 100 Units.

The story of comedy from the classics on focuses on the comedic as a weapon, as play that disrupts communication, and as a scene of moral revelation. This course will take up those relations, but begins with the body. We will focus on the plastic, corporeal, affective, and psychodramatic dynamics of the comedic. So much so, in fact, that we're calling it a studio seminar: it will involve actively participating in exercises adapted from the somatic arts, contemporary dance, music, theatre and contemporary comedy and developing new ones. Recognizing that bodies are as much created by movement as engendering it, and recognizing that the comedic is a register for translating the impact of other bodies including the world's body, the course will partition "the body" into focal themes such as: scale/gesture, the vocal grotesque/irony, movement/interruption, trauma/repair, slapstick/satire, ritual/convention, spontaneity/improvisation; cognitive laughter/belly laughter. Readings will include texts by Linda Williams, Erving Goffman, J.L. Moreno, Elias Canetti, Moshe Feldenkrais, Steve Paxton, Mikhail Bakhtin, Mae West, Jerry Lewis and Fred Moten. Students will contribute their own choices to an exploration of individual performances by Buster Keaton, Louise Lasser, Eleo Pomare, Phyllis Diller, Jackie "Moms" Mabley, and Jerrod Carmichael.

Instructor(s): L. Berlant, C. Sullivan Terms Offered: Autumn

Equivalent Course(s): TAPS 36215, ENGL 36407

ARTV 36750. Chicago Film History. 100 Units.

This course will screen and discuss films made mostly by Chicagoans, concentrating on the period after WWII, until 1980 when Hollywood began using Chicago as a location. By examining various genres, including those not normally interrogated by academics, such as educational and industrial films, we will consider whether there is a Chicago style of filmmaking. Technological advances that enabled both film and video to escape the restrictions of the studio and go hand-held, into city streets and homes, will be discussed. If there is a Chicago style of filmmaking, one must look at the landscape of the city—the design, the politics, the cultures and labor of its people and how they live their lives. The protagonists and villains of Chicago stories are the politicians and community organizers, our locations are the neighborhoods, and the set designers are Mies Van Der Rohe and the Chicago Housing Authority.

Instructor(s): J. Hoffman Terms Offered: Spring

Equivalent Course(s): CMST 31801, ARTV 26750, HMRT 35104, CMST 21801, HMRT 25104

ARTV 37204. Painting Matters. 100 Units.

Description coming shortly

Instructor(s): J. Stockholder Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200 or 10300 and some experience in painting

Equivalent Course(s): ARTV 27204

ARTV 37211. Through the Looking Glass: Intermediate/Advanced Painting. 100 Units.

Course description coming shortly.

Instructor(s): K. Desjardins Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200 and 10300

Equivalent Course(s): ARTV 27211

ARTV 37911. Art and Public Life. 100 Units.

The aim of this seminar-colloquium will be to work through some of the most advanced thinking on ideas about publics and their relation to questions of community, politics, society, culture, and the arts. From John Dewey through Hannah Arendt and Jurgen Habermas, the notion of the public has remained central to a wide variety of debates in the humanities and social sciences. What is a public? How are publics constituted? What is the role of real and virtual space, architectural design, urban planning, and technical media, in the formation of publics? And, most centrally for our purposes, what role can and do the arts play in the emergence of various kinds of publics? The colloquium aspect of the course will involve visiting speakers from a variety of disciplines, both from the University of Chicago faculty, and from elsewhere.

Instructor(s): W.J.T. Mitchell, T. Gates Terms Offered: Autumn

Equivalent Course(s): ENGL 32821, ARTH 47911, CMST 37802, MUSI 35014

ARTV 37920. Virtual Reality Production. 100 Units.

Focusing on experimental moving-image approaches at a crucial moment in the emerging medium of virtual reality, this class will explore and interrogate each stage of production for VR. By hacking their way around the barriers and conventions of current software and hardware to create new optical experiences, students will design, construct and deploy new ways of capturing the world with cameras and develop new strategies and interactive logics for placing images into virtual spaces. Underpinning these explorations will be a careful discussion, dissection and reconstruction of techniques found in the emerging VR "canon" that spans new modes of journalism and documentary, computer games, and narrative "VR cinema." Film production and computer programming experience is welcome but not a prerequisite for the course. Students will be expected to complete short "sketches" of approaches in VR towards a final short VR experience.

Instructor(s): M.Downie Terms Offered: Autumn

Equivalent Course(s): CMST 27920, CMST 37920, ARTV 27920, MAAD 24920

ARTV 37921. Augmented Reality Production. 100 Units.

Focusing on experimental moving-image approaches at a crucial moment in the emerging medium of augmented reality, this class will explore and interrogate each stage of production of AR works. Students in this production-based class will examine the techniques and opportunities of this new kind of moving image. During this class we'll study the construction of examples across a gamut from locative media, journalism, and gameplay-based works to museum installations. Students will complete a series of critical essays and sketches towards a final augmented reality project using a custom set of software tools developed in and for the class.

Instructor(s): M. Downie Terms Offered: Autumn

Equivalent Course(s): CMST 27911, CMST 37911, MAAD 22911, ARTV 27921

ARTV 37923. Experimental Captures. 100 Units.

This production-based class will explore the possibilities and limits of capturing the world with imaging approaches that go beyond the conventional camera. What new and experimental image-based artworks can be created with technologies such as laser scanning, structured light projection, time of flight cameras, photogrammetry, stereography, motion capture, sensor augmented cameras or light field photography? This hands-on course welcomes students with production experience while being designed to keep established tools and commercial practices off-kilter and constantly in question.

Instructor(s): M. Downie Terms Offered: Winter

Equivalent Course(s): MAAD 21011, ARTV 27923, CMST 27011, CMST 37011

ARTV 38000. Film and Revolution. 100 Units.

On the fiftieth anniversary of 1968 our course couples the study of revolutionary films (and films about revolution) with seminal readings on revolutionary ideology and on the theory of film and video. The goal will be to articulate the mechanics of revolution and its representation in time-based media. Students will produce a video or videos adapting the rich archive of revolutionary film for today's situation. The films screened will be drawn primarily from Soviet and US cinema, from the 1920s to the present day, proceeding more or less chronologically. We begin with newsreels and a "poetic documentary" by Dziga Vertov; they will be paired with classic readings from revolutionary theory, from Karl Marx and Vladimir Lenin to Fidel Castro and Bill Ayres, and from film theory, including Vertov, Andre Bazin and Jean-Luc Godard. Readings will acquaint students with contemporary assessments of the emancipatory potential of film.

Instructor(s): R.Bird; C.Smith Terms Offered: Spring

Equivalent Course(s): REES 36071, ARTV 28000, CMST 34521, CMST 24521, REES 26071

ARTV 38001. Intermediate 16mm Filmmaking. 100 Units.

This course will allow students to continue working on projects begun in the Intro to 16mm Production course (or developing a new small-scale project), in addition to developing skills with the following: sophisticated approaches to cinematography (comparative and reflective light metering, color negative exposure); varying workflows for post-production editing (analog and digital); and sound recording and design. Students will meet as a group for lectures, technical demonstrations and a shooting workshop. Course meeting time will also be set aside for individual conferences with the instructor to address project development and completion. Students should expect to budget between 120.00-500.00 for their filmstock and processing costs, depending on the project. This course is made possible by the Charles Roven Fund for Cinema and Media Studies. Instructor permission required.

Instructor(s): T. Comerford Terms Offered: Spring

Prerequisite(s): Permission from instructor is required for registration. Students will bid for entry to the class by emailing tcomerford@uchicago.edu, listing their year, major and previous production experience. Priority will be given to students who have previously completed the Intro to 16mm course, followed by CMS and DOVA majors, from graduate students to first-years. Students whose bids are accepted will be registered officially by the instructor at the first class meeting.

Equivalent Course(s): ARTV 28001, CMST 28922, CMST 38922

ARTV 39700. Independent Study in Visual Arts. 100-300 Units.

Students in this course should have already done fundamental course work and be ready to explore a particular area of interest much more closely.

Instructor(s): Staff Terms Offered: Autumn Spring Winter

ARTV 39901. 21st Century Art. 100 Units.

This course will consider the practice and theory of visual art in the late twentieth and twenty-first centuries.

Instructor(s): M.J. Jackson Terms Offered: Spring

Equivalent Course(s): ARTH 42911

ARTV 40000. Graduate Studio Project. 100-300 Units.

Only MFA students in the Department of Visual Arts may register for this class.

Terms Offered: Autumn Spring Winter

ARTV 40351. The Sonic Image. 100 Units.

The Sonic Image offers a unique opportunity to work with three senior researchers exploring the bridge-making and sense delimiting articulations of sound & sight together. We will examine the potency of sound in a world largely understood through its visualization as a world picture. Readings in sound studies, visual studies & media studies explore sound, sounds that evoke pictures, the forensics of sound, sound art, & films including *The Conversation*, *Blow Out* & *Amour*. Each faculty collaborator brings distinct interests to the course. WJT Mitchell's renowned theorization of images naturally extends to his theorizing the possibility of the sonic image. Artist Lawrence Abu Hamdan's commitment to the value of earwitnessing asks the listener to extend forensic knowledge to the very core of what it means to be a human being in the world. For the course, Hamdan will develop a workshop comprising a series of practical exercises that experiment with the conditions of testimony or claim making, enabling an exploration of how the law come to its truths and how can we use sonic imagination to trouble & contest established modes of enacting justice. Performance scholar, Hannah B Higgins, examines how musical notation, performance & sound bear on the relationships between sound & vision in recent art practices. An intervention from composer Janice Misurell-Mitchell will add a dimension of musical testimony to our investigation.

Instructor(s): W.J.T. Mitchell, Hannah Higgins, Lawrence Abu Hamdan Terms Offered: Autumn

Prerequisite(s): Open to all levels with consent of the instructors. All interested students should please email the instructor (wjtm@uchicago.edu) a one page statement of interest, explaining why they want to take the course, and what they will bring to it.

Equivalent Course(s): ARTV 20351, ARTH 32351, ENGL 22351, MAAD 12351, ARTH 22351, ENGL 42351

ARTV 39200. Graduate Seminar: ARTV. 100 Units.

Only MFA students in the Department of Visual Arts may register for this class.

Instructor(s): D. Schutter, W. Pope.L Terms Offered: Autumn Winter

ARTV 39700. Independent Study in Visual Arts. 100-300 Units.

Students in this course should have already done fundamental course work and be ready to explore a particular area of interest much more closely.

Instructor(s): Staff Terms Offered: Autumn Spring Winter

ARTV 39901. 21st Century Art. 100 Units.

This course will consider the practice and theory of visual art in the late twentieth and twenty-first centuries.

Instructor(s): M.J. Jackson Terms Offered: Spring

Equivalent Course(s): ARTH 42911

ARTV 40000. Graduate Studio Project. 100-300 Units.

Only MFA students in the Department of Visual Arts may register for this class.

Terms Offered: Autumn Spring Winter



THE DIVISION OF THE PHYSICAL SCIENCES

Dean

- Angela V. Olinto

Deputy Deans

- Michael Foote
- Craig J. Hogan
- Stephan S. Meyer

Dean of Students

- Karin LeClair

The Division of the Physical Sciences includes the Departments of Astronomy & Astrophysics (<http://astro.uchicago.edu>), Chemistry (<http://chemistry.uchicago.edu>), Computer Science (<http://www.cs.uchicago.edu>), Geophysical Sciences (<http://geosci.uchicago.edu>), Mathematics (<http://www.math.uchicago.edu>), Physics (<http://physics.uchicago.edu>), and Statistics (<http://www.stat.uchicago.edu>). It also includes the Enrico Fermi Institute (<http://efi.uchicago.edu>), the James Franck Institute (<http://jfi.uchicago.edu>), and the (interdivisional) Institute for Biophysical Dynamics (<http://ibd.uchicago.edu>). Graduate degrees are awarded only by the departments, the Committee on Computational and Applied Mathematics (CCAM) (<http://www.stat.uchicago.edu/ccam/index.shtml>) and the Biophysical Sciences (<http://biophysics.uchicago.edu>) program, but students in physical sciences programs often conduct their research under the auspices of the research institutes.

Undergraduate programs in the physical sciences are administered by the College. Detailed descriptions of programs leading to the bachelor's degree may be found in The College Catalog (<http://collegecatalog.uchicago.edu>).

ADMISSION TO GRADUATE PROGRAMS IN THE DIVISION

Applicants for admission to graduate studies in the Physical Sciences should refer to individual program entries for specific admissions requirements.

An applicant who has received a bachelor's degree or the master's degree from an accredited college or university may be admitted on the basis of his or her previous academic record.

An applicant who has completed at least two years of college work with superior standing in the basic courses of a special field and an adequate record of general studies but who does not have a four year bachelor's degree may be admitted to the division to study toward a higher degree. However, failure to qualify for a higher degree leaves the student with no degree. Admission on this basis is recommended only for those with high aptitude for their major field and with not more than two deficiencies in general education covering the areas of English, modern foreign languages, humanities, social science, and biological science.

A person may be admitted as a graduate student at large or as a returning scholar for the purpose of studying a definite subject or subjects for which he or she has an adequate background. Admission is considered upon the basis of an abbreviated application, such credentials as may be appropriate, and a clearly defined statement of objectives. Application is made to the Graham School of Continuing Liberal and Professional Studies (<https://grahamschool.uchicago.edu>).

FINANCIAL AID

All graduate students at the doctoral level in the Division of the Physical Sciences receive financial support, typically in the form of teaching or research assistantships which include a tuition scholarship and health insurance coverage. Other forms of support include fellowships provided by the National Science Foundation, the U.S. Department of Education, and various private foundations.

DEGREES

Normally students admitted to a degree program are expected to be in continuous, full time residence until the degree has been conferred. Since individual departmental or program degree requirements may change, students should always contact their department or program for current degree requirements and regulations. Per University policy, a student must complete three quarters of full-time registration (or the equivalent in part-time registration quarters) at the University in order to qualify for a degree.

MASTER OF SCIENCE

Master of Science students are required to register full time in the division for a minimum of three quarters, during which time they must satisfactorily complete a minimum of nine individual courses. There are several masters programs in the division for students who want to specialize in specific areas in the physical sciences:

- The Committee on Computational and Applied Mathematics offers a Master of Science in Computational and Applied Mathematics (<https://voices.uchicago.edu/cammasters>).
- The Department of Computer Science offers a Master of Science in Computer Science (<http://csmasters.uchicago.edu>).
- The Department of Mathematics offers a Master of Science in Financial Mathematics (<http://www-finmath.uchicago.edu>).
- The Physical Sciences Division offers a general Master of Science in the Physical Sciences (<http://mspd-sites.uchicago.edu>) aimed at students who wish to broaden or deepen their knowledge of the physical and mathematical sciences.
- The Department of Statistics offers a Master of Science in Statistics (<http://www.stat.uchicago.edu/admissions/MastersDegree.shtml>).

In addition,

- The Department of Computer Science together with the Harris School for Public Policy offers a Master of Science in Computational Analysis and Public Policy (<https://capp.sites.uchicago.edu>).
- The Physical Sciences Division together with the Harris School for Public Policy and Argonne National Laboratory offers a Master of Science in Environmental Science and Policy (<http://harrisschool.uchicago.edu/degrees/masters-degree/ms-env-sci-policy>).

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is conferred in recognition of high accomplishment and ability in the candidate's chosen field. It is understood that the completion of a specified number of courses and a given period of residence do not ensure the granting of this degree. The requirements for the degree of Doctor of Philosophy are as follows:

1. Completion of the University's residence requirements.
2. Admission to candidacy for the degree. Admission to advanced work in the division does not necessarily imply admission to candidacy for a degree, which is contingent upon the recommendation of the program in which the student is working. At the appropriate time programs will submit to the Dean of Students in the division, on behalf of each student, an application requesting approval of admission to candidacy. Approval of the application certifies that:
 - The candidate has satisfied all course requirements for the program.
 - The candidate's program recommends admission to candidacy (following satisfactory completion of individual examination requirements).
 - The candidate has begun investigation for a dissertation.
3. The passing of final examination(s) in accordance with one of the following plans:
 - A basic examination in the major fields of interest in the department or departments of specialization and a final oral examination in the field covered by the dissertation or;
 - In the absence of a preliminary or basic examination, passing comprehensive examinations covering major fields of interest in the program of specialization, including the field of the dissertation.
4. Acceptance by the department or program and the Dissertation Office of a dissertation submitted for the degree.



MASTER OF SCIENCE PROGRAM IN COMPUTER SCIENCE

- The Department of Computer Science (<http://www.cs.uchicago.edu>) at the University of Chicago offers two graduate curricula in computer science:
 - A graduate professional curriculum leading to the Master of Science (S.M.) degree, for students who wish to enter or advance themselves in computer science practice.
 - A graduate research curriculum leading to the Ph.D. degree that prepares students to perform advanced basic research in computer science either in industry or academia.

For more information on the Ph.D. program, please see the listing Department of Computer Science.

The Masters Program in Computer Science (<http://csmasters.uchicago.edu>) (MPCS) offers a comprehensive and professionally-oriented computer science education that combines the foundations of computer science with the applied and in-demand skills necessary for today's careers in technology. The MPCS is specially well suited for students interested in careers in software engineering, mobile computing, data analytics, and high-performance computing.

The coursework in our program represents a realistic balance between CS foundational theory and applied technical courses. Core classes include Programming, Algorithms and Systems coursework. Electives include new and innovative courses to keep up with the fast-paced world of technology including courses in Software Engineering, Big Data, Data Analytics, Machine Learning, High Performance Computing, Mobile Application Development, Web Development and Cloud Computing.

What sets our program apart is our ability to tailor coursework to the career goals and backgrounds of our students. For students that do not have a background in math or programming, we offer math and programming prerequisite courses to introduce students to computing and to the fundamental and introductory skills that are needed to successfully begin masters-level coursework. Students with more advanced backgrounds can begin in higher-level classes.

The MPCS offers the following Programs of Study (<https://csmasters.uchicago.edu/page/programs-study>) to accommodate students with a wide range of backgrounds and interests:

MS in Computer Science:

- **9-Course MS in Computer Science Program** - This program consists of 9 courses that students can complete in just 9 months (full-time) or in 15 months (part-time).
- **12-Course MS in Computer Science Specialization Program** - This program is designed for students seeking further specialization that will build a strong professional skill set in the following focused areas: Software Engineering, High Performance Computing, Data Analytics, Mobile Computing. This program can be completed in 15 months, if full time, including a summer internship.

Pre-Doctoral MS in Computer Science:

- This 12-course research-oriented masters program is for students who want to explore computer science research. The Pre-Doc program is for full-time students with a CS background starting in the Autumn quarter.

Joint MBA/MPCS Program with the Booth School of Business:

- The Joint MBA/MPCS program meets today's leading tech companies' cross-functional demands of new employees. Technology permeates everything, and true innovation requires the ability to understand and navigate both business and technology. Our joint program with UChicago's Booth School of Business enables students to earn both an MBA and an MS in Computer Science.

Immersion Classes in Programming and Discrete Math are available to any MPCS student before beginning core coursework.

To view the specific requirements for each program and a complete list of course offerings, please visit the MPCS website at: <https://csmasters.uchicago.edu>

COMPUTER SCIENCE MASTERS COURSES

MPCS 50101. Concepts of Programming. 100 Units.

In this course students will get an introduction to the field of computer science by learning to program in Java. Students will write roughly two or three programs of significance each week to learn foundational programming principles and practices for writing clean, readable code, and learning how to think and solve problems like a computer scientist. Along with basic principles like procedural abstraction, recursion, and handling input and output, an emphasis will be placed on theories and principles of Object Oriented software design, analyzing algorithms and choosing appropriate data structures to solve problems.

Instructor(s): TBA Terms Offered: Summer, Winter

Note(s): Open only to MPCS students

MPCS 50103. Mathematics for Computer Science: Discrete Mathematics. 100 Units.

This course is an introduction to discrete mathematics oriented toward computer science. The course emphasizes mathematical proof and problem solving, employed on a variety of useful topics: logic; proof by induction; counting, factorials, and binomial coefficients; discrete probability; random variables, expected value, and variance; recurrences; graphs and trees; basic number theory; asymptotic notation, and rates of growth. On completion of the course, students will have been trained to think about and absorb mathematical concepts, to solve problems requiring more than standard recipes, and express mathematical notions precisely. They will be able to use ideas and techniques from discrete mathematics in subsequent courses in computer science, in particular courses in the design and analysis of algorithms, networks, numerical methods, software engineering, data analysis, and data mining.

Instructor(s): Geraldine Brady Terms Offered: Summer Winter

Prerequisite(s): Precalculus, especially logarithms and exponentials, is a prerequisite; calculus is not required. High-school level familiarity with sets, functions, and relations will be assumed. There are no programming prerequisites.

Note(s): Open only to MPCS students

MPCS 51030. iOS Application Development. 100 Units.

Advances in mobile technologies are changing the way that individuals and businesses use computing devices. This course will instruct students on the fundamentals of mobile application development using Apple's iOS SDK. An introduction to the Objective-C programming language, including memory management, object-oriented design, and the model-view-controller pattern, will be covered. Using iOS APIs and tools, such as Xcode, Interface Builder and Instruments, students will be able to create fully-featured iPod Touch, iPhone, and iPad applications. User interface and application design considerations specific to mobile technologies will also be explored. The course will consist of lectures, hands-on coding exercises and discussion. Weekly programming assignments will culminate into the development of a fully functioning iOS application. As a final project, each student will design and implement an application of their choice to be presented in class. Each student will also be required to present a case study featuring an app from the Apple's App Store. The studies will include a technical decomposition of the implementation (i.e. features, functionality, design, etc.) and a market analysis (i.e. competition, pricing, positioning, etc.) for the app. These case studies are designed to encourage students to gain an appreciation for the decisions companies and developers face when entering the app market.

Instructor(s): T. Andrew Binkowski Terms Offered: Winter

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51031. Android Application Development. 100 Units.

After a quick introduction to mobile computing, competing platforms, Android architecture, market projections, and social and economic implications, we will dive directly into developing several reference implementations. Alternating between theory and practice, and progressing cumulatively, will cover every major feature of the Android platform, including; audio, graphics, internet connectivity, wifi, mapping/geo-positioning, notifications, sms, structured feeds, persistence, threads, states, and inter-process communication, among others. Students will chose a final project, then envision, design, develop, test, and deploy an application to the Android marketplace.

Instructor(s): Adam Gerber Terms Offered: Spring

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100 and experience programming in Java

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51032. Advanced iOS Application Development. 100 Units.

Advances in mobile technologies are changing the way that individuals and businesses use computing devices. This course will explore real-world issues with developing robust, high-performance iOS applications for iPhone, iPod Touch and iPad. The course will consist of lectures, hands-on coding exercises and discussion. Weekly programming assignments will be used to create a portfolio of applications using advanced iOS frameworks and tools, such as Xcode, Interface Builder and Instruments. Throughout the course, students will design and develop an application as a final project. Students may opt to work in collaboration with local companies or emerging start-ups for their project. These opportunities will be discussed during the first week of class and may vary by quarter.

Instructor(s): T. Andrew Binkowski Terms Offered: Spring

Prerequisite(s): MPCS 51030 or instructor's consent

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51033. Backends for Mobile Applications. 100 Units.

The breakneck adoption of mobile computing as a platform has transformed how businesses and users interact with their data. The expectations of being able to access your data anywhere and anytime has become the second pillar of mobile application design and development. New models, patterns and workflows are needed to connect applications to their server based data. In addition, other considerations such as privacy, scalability and cost must be balanced to meet the demands of all application stakeholders.

Instructor(s): T. Andrew Binkowski Terms Offered: TBD

Prerequisite(s): Core Programming and MPCS 51030

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51036. Java Programming. 100 Units.

This is a fast-paced first course in Java for students with some prior programming experience, though not necessarily Java or any other object-oriented language. A strong emphasis will be placed on understanding basic fundamentals of OO design--inheritance, polymorphism, composition, etc. and more generally on applying sound principles of contemporary software engineering and tools to real-world problems. In the latter half of the course, we will cover threads, OO design patterns, as well as certain Java libraries such as Swing. For their final-projects, students will develop a multi-threaded, arcade-style game. The course format is both lecture and lab. We will use be using git to facilitate our learning and to manage our projects. By the end of the quarter, students will have a working knowledge of git and know how to manage both local and remote repositories.

Instructor(s): Adam Gerber Terms Offered: Autumn Spring

Prerequisite(s): Immersion programming (MPCS 50101) or passing score on programming placement exam.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51037. Advanced Java Programming. 100 Units.

This is an advanced course designed for students with a good foundation in Java programming. Basic familiarity with C is also assumed. The course focuses on designing distributed, multithreaded applications with the Java platform. It is an application programming course. Emphasis is placed on applying technology rather than studying API design and implementation. Topics proceed (roughly) from "low-level" to high level network programming concepts: socket byte streams, object serialization, Remote Method Invocation, Java/CORBA (minimal), Web Services, and (briefly) Enterprise Java Beans. While any of these topics alone could form the basis for an entire course, the emphasis is on providing students with an adequate foundation for pursuing individual topics in greater depth. Along the same lines, a major focus of the course is to help students determine when to best apply a given Java technology in a real world, multi-tier application.

Instructor(s): Adam Gerber Terms Offered: Summer

Prerequisite(s): MPCS 51036 Java Programming or consent of instructor

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51040. C Programming, 100 Units.

This is an accelerated introduction to the C (not C++) Programming Language designed for students with prior programming experience. C is in many ways the lingua franca of computing, and a broad range of programming languages and related technologies derive from the basic principles of C memory management, control flow, and abstraction. Though there are many subtleties, C is not a big language, and it is expected that students will leave the course with a relatively deep understanding of the key concepts, which will then form a solid foundation for studying higher-level technologies. At the same time, C itself remains a very practical language, particularly so in areas such as scientific programming, high-performance computing, application level library design, systems programming, network programming, multi-threaded programming, etc. Students who successfully complete the course will be well prepared for subsequent MPCS courses in these areas. The course studies both fundamental and advanced C language constructs in the abstract and reinforces them through a range of exercises in the design of basic and advanced data structures, rudimentary algorithms, and API design.

Instructor(s): Dries Kimpe Terms Offered: Autumn Spring

Prerequisite(s): Immersion programming (MPCS 50101) or passing score on programming placement exam.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51042. Python Programming, 100 Units.

This course provides a thorough overview of the Python 3 language with an emphasis on writing idiomatic code in Python and object-oriented design patterns and is suitable for students with some prior programming experience. We will develop an understanding of the core features of the languages and gain exposure to commonly used standard-library and third-party modules.

Prerequisite(s): MPCS 50101 or passing score on the programming placement exam.

Note(s): Non-MPCS students need to complete a course request form.

MPCS 51043. Swift Programming, 100 Units.

In this course, students will get an immersive introduction to the field of computer science by learning to program in Swift. Students will learn about fundamental data structures and algorithms, professional coding practices, algorithm design, automated testing, and the fundamentals of object-oriented programming. While the Swift programming language is a cross-platform, versatile programming language, this class is especially suited for students in the mobile application specialization who are planning on developing for Apple Computer platforms.

Prerequisite(s): MPCS 50101 Concepts of Programming (or programming waiver)

Note(s): Non-MPCS students need to complete a course request form.

MPCS 51044. C/C++ for Advanced Programmers, 100 Units.

This course covers the major features of C++ in an accelerated fashion suitable both for experienced C++ programmers and programmers who are new to C++ as described in the prerequisites below. The course teaches how to get the most out of the current C++11 language, which Bjarne Stroustrup, the inventor of C++, says "feels like a new language." It also discusses how to work around in old versions of C++. A dominant theme of the course is how to use the unique features of C++ to operate at a high-level of abstraction to support powerful design idioms and improve maintainability while also achieving the kind of performance and low-level control usually associated with lower-level languages such as C and even assembler language.

Instructor(s): Michael Spertus Terms Offered: Winter

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100 or programming experience in any language with instructor's consent

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51045. Advanced C++ 100 Units.

In this continuation of the MPCS 51044 course, we go beyond the basics to cover the powerful and surprising techniques that C++ experts use to write libraries that simultaneously provide the optimum in ease-of-use, abstraction, and performance. If you use C++ in your daily life, you and your team will see substantial benefits from understanding and using C++ at a deeper level.

Instructor(s): Michael Spertus Terms Offered: Spring

Prerequisite(s): MPCS 51044 or instructor's consent

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51046. Intermediate Python Programming, 100 Units.

Syllabus will be available soon.

Instructor(s): Paul Romano Terms Offered: Autumn

Prerequisite(s): MPCS 50101 Concepts of Programming (or programming waiver) and approval from MPCS administration

Note(s): All non-MPCS students must meet the course prerequisites and complete the MPCS course request form for approval to register.

MPCS 51050. OO Architecture: Patterns, Technologies, Implementations. 100 Units.

This course gives hands-on experience in architecture and design and the communication of such designs in the form of patterns. There are no formal prerequisites except solid familiarity with Java and optionally familiarity with C++. The course is designed to give students a fundamental introduction to design and architectural patterns as they are implemented in large scale system architectures currently used in industry. Students will be encouraged to explore the various implementation possibilities afforded by these patterns. Trade-offs in terms of performance, development time, maintenance impact, etc. will also be discussed. Students will gain exposure to several industry-leading tools including Apache ActiveMQ and ServiceMix.

Instructor(s): Mark Shacklette Terms Offered: Spring

Prerequisite(s): Core programming requirement including basic familiarity with one object-oriented programming language, such as Java, C# or C++

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51083. Cloud Computing. 100 Units.

Cloud computing is being widely adopted by enterprises of all sizes due to the low initial investment required, attractive operating costs, and elastic capacity that can best serve the highly variable demands of modern applications. Software engineers must be familiar with cloud computing technologies since many new applications they develop will be deployed "in the cloud", and existing applications will often require integration with cloud-hosted services to take advantage of new capabilities. This course provides an introduction to cloud computing with specific consideration for application development in two contexts: highly scalable (or so-called "web-scale") web applications, and enterprise applications in a hybrid environment comprising both on-premises and cloud infrastructure. We will focus primarily on infrastructure and platform services, and will introduce software-as-a-service from the perspective of a consuming application. The course will emphasize practical applications of cloud computing technologies, with sufficient exploration of their theoretical underpinnings to inform architectural, design, and implementation decisions.

Instructor(s): Vas Vasiliadis Terms Offered: Spring Summer

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51087. High Performance Computing. 100 Units.

Parallel computing allows multiple processing units to work together simultaneously on a common task. For certain types of applications, parallelization can increase execution time in proportion to the number of computers or processors used. This is a huge advantage for applications which have performance and/or memory bottlenecks, such as one typically encounters in financial modelling, physics, engineering, or other applied science domains. This is a fast-paced applied programming course aimed at students with significant development experience in either C, C++, or FORTRAN (Java, Matlab, or Python are also possible, but not ideal). No prior knowledge of parallel computing is assumed. Students should, however, have both an interest and some previous experience in either algorithmic development, numerical methods, applied mathematics, or perhaps any physics or engineering-type discipline. A brief overview of parallel computing will be presented at the outset, but the course will be less on overview of HPC architectures and much more a focus on algorithmic implementation and performance tuning. The goal of the course is to give students experience in developing efficient, scalable (distributed memory) parallel algorithms appropriate for any system running an implementation of the Message Passing Interface (MPI). Assignments will be designed with some flexibility to allow students to explore applying parallel techniques to applications in their own field of interest.

Instructor(s): Andrew Siegel Terms Offered: Winter

Prerequisite(s): MPCS 51040 C Programming

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51100. Advanced Programming. 100 Units.

Advanced Programming fulfills the MPCS Core Programming requirement, but is intended for students who are joining the program with an existing degree in Computer Science, or with substantial experience in programming. This course will be taught primarily in C, including an accelerated introduction to the C language for students who have not used C before. The course will cover advanced data structures and topics in concurrent and multicore programming not covered in the Java Programming or C Programming courses.

Instructor(s): Andrew Siegel Terms Offered: Autumn

Prerequisite(s): For students who have taken the programming immersion course, a minimum grade of A- plus the endorsement of the MPCS 50101 instructor will be required. For students who take the programming placement exam, they must score a "High Pass" score (the minimum score for a "High Pass" is specified at the time of the exam).

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51200. Introduction to Software Engineering. 100 Units.

Writing first-class software requires top-notch architecture, design and coding skills, but successful software project execution—from identifying the need to providing support—depends on many factors besides technical prowess. This course surveys the key practices and processes that help ensure successful projects. It provides an introduction to central activities of software engineering other than just coding, such as planning, requirements, testing and management. It balances this discussion of typical engineering activities against the development process models in which they take place -- specifically, it addresses the tension between traditional plan-driven approaches and adaptive agile techniques. By examining the underlying principles of major development models, it shows how those principles address (or fail to address) the various problems encountered by project teams. Students who complete this course will gain a solid understanding of both plan-driven and agile software development principles and how to negotiate between them in different contexts.

Instructor(s): Peter Vassilatos Terms Offered: Autumn Winter

Prerequisite(s): MPC5 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51205. Topics in Software Engineering. 100 Units.**MPCS 51220. Applied Software Engineering. 100 Units.**

In this course, we will explore practical techniques to solving modern software challenges. Topics include: Software quality control, Test-driven development, Domain-driven design, Measuring software quality, Architectural design patterns, Edge-free programming, Event streams, logging, and audit trails, Source control techniques for small teams with Git, Security and cryptography essentials, Continuous integration & deployment

Instructor(s): Jeffrey Cohen

Prerequisite(s): MPC5 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51221. Applied Software Engineering II. 100 Units.

This course is an intermediate approach to applied software design and development methods for use in creating efficient, reusable, and modular software. This course is offered annually but content and focus change from year to year. Methods we investigate include: classes, inheritance, and polymorphism; design patterns; advanced programming techniques using microservices, event-driven architecture, Hybrid Transactional/Analytical Processing; software frameworks and container-based software development; and advanced techniques including multi-threading. A heavy focus is on design and creativity and what constitutes creative design.

Instructor(s): J. Mark Shacklette

Prerequisite(s): MPC5 51220

Note(s): Non-MPCS students need to complete a course request form.

MPCS 51230. User Interface and User Experience Design. 100 Units.

This course is eleven weeks in length and covers the elemental practices of user interface (UI) design, user experience (UX) design, and user research. The intention of the course is to provide an overview of the experience design field so that the student is empowered to practice design as well as effectively manage design. It is, however, more likely that the student will collaborate with others on the design of products and services.

Prerequisite(s): MPC5 51030 or MPC5 51031

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51240. Product Management. 100 Units.

In this course we will introduce the role of the product manager and demonstrate the challenges faced by product managers. We will explore approaches for managing the tension that exists between software development and product delivery using the minimum viable product and the product roadmap as critical tools.

Instructor(s): Vasilios Vasiliadis

Prerequisite(s): MPC5 51036 or 51040 or 51042 or 51043 or 51100. his course assumes no prior knowledge of product management concepts or specific technologies. However, you may find some of the material easier to put into perspective if you're familiar with software design patterns, or have taken one of the other software engineering courses offered in the MPC5.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51250. Entrepreneurship in Technology. 100 Units.

The core theme for the Entrepreneurship in Technology course is that computer science students need exposure to the broad challenges of capturing opportunities and creating companies. Most of the skills required for this process have nothing to do with one's technical capacity. We'll explore creating a story, pitching the idea, raising money, hiring, marketing, selling, and more. Real-world examples, case-studies, and lessons-learned will be blended with fundamental concepts and principles. The course will involve a business plan, case-studies, and supplemental reading to provide students with significant insights into the resolve required to take an idea to market. Class discussion will also be a key part of the student experience.

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): If an undergraduate takes this course as CMSC 29512, it may not be used for CS major or minor credit.

Non-MPCS students must receive approval from program prior to registering. Request form available online

<https://masters.cs.uchicago.edu>

Equivalent Course(s): CMSC 29512

MPCS 51300. Compilers. 100 Units.

This class teaches the theory and practice of how to write a compiler, including lexical analysis, grammars, lexers and parsers, type checking, and code generation. For decades, compilers have been the most dynamic and challenging branch in computer science. The main part of this class will focus on providing the basics of the different phases of compilation. Through the course, students will develop appreciation for the implementation strategies behind making an efficient and robust compiler.

Terms Offered: TBD

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51400. Functional Programming. 100 Units.

This course presents the functional programming paradigm, based on the idea of functions as first-class values that can be computed and operated on like other data. Functional languages provide great power of expression while maintaining simplicity, making it easier to write correct and maintainable software. Functional programming has gradually found new applications in areas like finance, telecommunications, and graphics. The essential feature of treating functions as values has also been added to a broad range of conventional languages, such as Python, C++, Java, Apple's Swift and Google's Go language. The course will use the Haskell language based on its representing a purely functional language and its large community support that helps with writing Haskell programs easily. After learning the basic elements of these languages, we will explore functional programming techniques that can be exploited in many areas of application. In particular, we will examine how FP features are used in more modern languages and libraries such as C++, Java, Elm, and React libraries and how they are used in real-world settings. We will briefly compare the functional paradigm with the related paradigm of object oriented programming. If time permits then we will explore more advanced topics including concurrent functional programming and functional reactive programming.

Instructor(s): Lamont Samuels

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100. Students with an existing CS background may take this class concurrently with Core Programming with consent from the MPCS.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 51410. Object Oriented Programming. 100 Units.

This course concentrates on three major themes: Software Architecture, Object Oriented Analysis and Domain-Driven Design, and Methodology. The bulk of the course will involve advanced concepts in Object-Oriented Analysis and Design and Domain-Driven Design (OOAD/DDD). The methods we will study include Object-Oriented Analysis and Design, Domain-Driven Design, and the Unified Modeling Language (UML). While the focus of the course is on current best practices in designing object-oriented software, the general theme of the course is coming to terms with complexity in software systems and domains.

Instructor(s): J. Mark Shacklette

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 52010. Computer Architecture. 100 Units.

This course focuses on the design and performance evaluation of modern computer architectures. The emphasis is on microprocessors, chip-multiprocessors and memory hierarchy design, particularly in the context of parallel (multicore) CPUs.

Instructor(s): Andrew Siegel

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 52011. Introduction to Computer Systems. 100 Units.

This course is all about constructing your own knowledge of computer systems by building a general-purpose computer system from the ground up. The objective is to integrate key ideas from algorithms, computer architecture, operating systems, compilers, and software engineering into one unified framework. Along the way, we'll explore ideas and techniques used in the design of modern hardware and software systems, and discuss major trade-offs and future trends. Throughout this journey, you'll gain lots of cross-section views of the field of computer science, from the bare-bone details of switching circuits to the high-level abstraction of object-based software design. By the end of the course, you will have written a computer game in an object-oriented programming language; compiled that program into machine language using the compiler, the virtual machine language translator, and the assembler that you wrote; and run your program on (virtual) hardware that you designed.

Terms Offered: Autumn Winter

Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 52030. Operating Systems. 100 Units.

This is an introductory course on operating systems. Students will learn the fundamentals of how modern operating systems are built, from the interface with hardware up through the kernel-userspace boundary. Important topics include the relationship between processes and threads, synchronization, inter-process communication, memory management, file systems, scheduling, I/O, virtualization. These concepts will be reinforced through several large-scale programming projects (in C++), whereby students will implement various sub-components of a real operating system. Prior experience with C and/or C++ required. As appropriate, we'll use the Linux operating system (written in C) as an example of operating systems design. As time permits, we will also delve into current hot topics in the field (such as multi-core systems, security, and cluster/grid computing).

Terms Offered: Spring

Prerequisite(s): Student must meet one of the following requirements: - B+ or higher in MPCS 51040 - C

Programming - B+ or higher in MPCS 51100 - Advanced Programming - A- or higher in MPCS 51044 - C++ for Advanced Programming (students who have only taken this class should review C before taking OS) Students must also have a B+ or higher in MPCS 52011 - Introduction to Computer Systems.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 52040. Distributed Systems. 100 Units.

This class teaches the theory and practice of how to design a distributed system. Cloud computing, drive services, online collaborative working environment, massively multiplayer online gaming, airline reservation systems, e-commerce are examples of distributed systems. Because of a continuous growing number of independent and diverse connected devices, the need of managing heterogeneous architecture became prominent. We will learn how to create a reliable system being easy to use but handling the complexity of having all these machines work collectively. The objective of this class is to learn distributed system by studying: Communication mechanisms Synchronization Scalability Consistency / Replication Fault tolerance

Terms Offered: Spring

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 52060. Parallel Programming. 100 Units.

Parallel computing is found everywhere in modern computing. Multi-core CPUs and GPUs, supercomputers, and even mobile devices such as smartphones all provide ways to efficiently utilize parallel processing on these architectures and devices. The goal of this course is to provide an introduction to the foundations of parallel programming and to consider the performance gains and trade-offs involved in implementing and designing parallel computing systems. Specifically, this course will place an emphasis on concepts related to parallel programming on multicore processors.

Instructor(s): Lamont Samuels Terms Offered: Autumn Spring

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100. Familiarity with C, Java, and/or Python

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 52553. Web Development. 100 Units.

This course provides students with an introduction to modern web development, with an emphasis on the pragmatic skills needed to build live, functioning web applications. Students will learn fundamental domain modeling skills, HTML and CSS frameworks, agile software techniques and best practices, Javascript and AJAX, and both server-side and client-side debugging techniques. We will use the Ruby language and the Rails framework to immerse students into the challenge of building a live, database-backed web application deployed at a public web address. Specifically, students will learn how to: Build a live website or web application and deploy it to the public internet; Use the Ruby on Rails framework to rapidly build a web application; Write software using the Ruby programming language; Use a relational database to provide content for dynamic websites; Follow industry best-practices of modern web software development; Troubleshoot and resolve the most common problems with web applications

Instructor(s): Jeffrey L. Cohen Terms Offered: Spring Summer

Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 52554. Advanced Web Development. 100 Units.

This course builds upon MPCS 52553 to enable students to gain mastery over modern web architectures and services. Today's consumer-facing and business applications must consume external services and publish services of their own. Students will build interconnected chains of services, with a particular emphasis on efficiency, security, and sustainability using modern web frameworks such as Rails, React, Node, and more.

Instructor(s): Jeffrey L. Cohen Terms Offered: Autumn

Prerequisite(s): MPCS 52553 Web Development

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 53001. Databases. 100 Units.

Students will learn database design and development and will build a simple but complete web application powered by a relational database. We start by showing how to model relational databases using the prevailing technique for conceptual modeling -- Entity-Relationship Diagrams (ERD). Concepts covered include entity sets and relationships, entity key as a unique identifier for each object in an entity set, one-one, many-one, and many-many relationships as well as translational rules from conceptual modeling (ERD) to relational table definitions. We also examine the relational model and functional dependencies and their application to the methods for improving database design: normal forms and normalization. After design and modeling, students will learn the universal language of relational databases: SQL (Structured Query Language). We start by introducing relational algebra -- the theoretical foundation of SQL. Then we examine in detail the two aspects of SQL: data definition language (DDL) and the data manipulation language (DML). Concepts covered include subqueries (correlated and uncorrelated), aggregation, various types of joins including outer joins and syntax alternatives. Students will gain significant experience with writing and reading SQL queries throughout the course in the detailed discussions in class, online homework, and the real-world individual project.

Instructor(s): Zachary Freeman Terms Offered: Autumn Spring

Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 53003. Advanced Databases. 100 Units.

The objective of this course will be to (i) expand the knowledge by covering new topics that represent the state-of-the-art in database management systems and distributed systems, and (ii) to build upon foundations developed in MPCS 53001 - Databases by covering topics in greater depth.

Terms Offered: Summer Winter

Prerequisite(s): MPCS 53001 or Instructor's consent

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 53013. Big Data. 100 Units.

In this course, we will cover both the theory and practice of Big Data. To support practical experience with genuinely big data, we have arranged that all students will receive a substantial credit on the Google Cloud Platform courtesy of generous support from Google. To develop a sound understanding of the theory of Big Data, we will use Marz and Warren's Big Data textbook providing a conceptual architecture for Big Data systems. We will also cover important additional topics that invariably arise in real world applications of Big Data, such as like cleaning scraped data meant for human consumption to meet the needs Big Data systems. Students are required to bring a laptop to class every week.

Instructor(s): Michael Spertus Terms Offered: Autumn

Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 53014. Big Data Application Architect. 100 Units.

The purpose of this class is to learn how to build applications at scale, by providing you with the techniques and tools capable of providing subsecond response times to millions of users interacting with petabytes of data. In this course, we will cover both the theory and practice of building Big Data application. We will not only learn how to use technologies such as HDFS, MapReduce, Spark, Kafka, Hive, Thrift, HBase, Zookeeper, columnar stores, etc., but also understand why Big Data applications employ such a diverse array of technologies and where each one of them fits. We will demonstrate the practice of Big Data application architecture by implementing a running Big Data web application for exploring the relationship between weather and flight performance utilizing all of the weather and flight delay information in the United States over the last decade to explore the relationship between weather and flight performance. To develop a sound understanding of the theory of Big Data, we will learn about important formulations of Big Data application architectures, such as Nathan Marz' lambda architecture, proper use of normalized and denormalized data stores within large-scale web applications, application of the CAP theorem, etc. We will also continuously keep in mind important additional topics that invariably arise in real world applications of Big Data, such as budgeting, compliance, etc.. Students are required to bring a laptop to class every week.

Instructor(s): Michael Spertus Terms Offered: Autumn

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100. Very basic programming skills in Java. Basic linux IT skills.

Note(s): All non-MPCS students must meet the course prerequisites and complete the MPCS course request form for approval to register.

MPCS 53110. Foundations of Computational Data Analysis. 100 Units.

The course covers statistical methods for exploring, summarizing, and visualizing data sets, for modeling data using probability distributions, for making inferences about a population from samples, for testing hypotheses related to such inferences, and for describing relationships using linear and logistic regressions. It then examines in detail techniques from machine learning used for solving fundamental problems in data mining: classifying data through decision trees, nearest-neighbors, and Bayesian techniques; clustering data through k-means, hierarchical approaches, and density-based techniques; and performing association analysis through the Apriori algorithm. Students use Python for implementing algorithms and Python libraries such as NumPy, SciPy, matplotlib, and pandas for analyzing and visualizing datasets.

Instructor(s): Amitabh Chaudhary Terms Offered: Winter

Prerequisite(s): This course requires mathematical, algorithmic, and programming maturity. Specific course prerequisites are: MPCS 50101 Math for Computer Science, MPCS 55001 Algorithms, MPCS Programming core requirement. In each of the above courses a B+ or better grade is required. Equivalent courses will be accepted with instructor permission. In addition, students are expected to be familiar with — Programming in Python: use of lists, dictionaries, conditionals, classes, and reading from and writing to files. Data structures: such as trees and graphs. Basic multivariate calculus: including differentiation, integration, and finding maxima and minima. Basic Linear Algebra: vectors, matrices, matrix multiplication, linear transformations, and eigenvectors. If you are unfamiliar with just one or two topics, you may be allowed to take the course if you are committed to learning those on your own. In that case, or if you have other questions, please email the instructor.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 53111. Machine Learning. 100 Units.

This course introduces the fundamental concepts and techniques in data mining, machine learning, and statistical modeling, and the practical know- how to apply them to real-world data through Python-based software.

The course examines in detail topics in both supervised and unsupervised learning. These include linear and logistic regression and regularization; classification using decision trees, nearest neighbors, naive Bayes, boosting, random trees, and artificial neural networks; clustering using k-means, expectation-maximization, hierarchical approaches, and density-based techniques; and dimensionality reduction through PCA and SVD. Students use Python and Python libraries such as NumPy, SciPy, matplotlib, and pandas for implementing algorithms and analyzing data.

Instructor(s): Amitabh Chaudhary Terms Offered: Spring

Prerequisite(s): 1. B+ or above in MPCS 51042 Python Programming (or in Programming core requirement with prior knowledge of Python) 2. B+ or above in MPCS 55001 Algorithms 3. B or above in MPCS 53110

Foundations of Computational Data Analysis (or Data Analysis placement exam) If you are concurrently taking Algorithms with Machine Learning, a B+ or higher in MPCS 50103 Math for Computer Science If your grades in the above classes do not meet the minimum requirements set above, please contact the instructor to discuss your background.

Note(s): MPCS students only.

MPCS 53112. Advanced Data Analytics. 100 Units.

This course explores selected advanced themes in data mining and analytics. These include the recent "model-free" techniques for mining massive datasets, foundations of natural language processing, and time series analysis. Topics include frameworks such as MapReduce; algorithmic ideas such as locality-sensitive hashing, Bloom filters, random walks, and competitive analysis; and applications such as link analysis, social-network analysis, recommendation systems, streaming data, and advertising on the web. In natural language processing, the course introduces fundamentals of language models, text classification, and information retrieval and extraction. In time series analysis, the course examines stationary processes and the ARIMA and GARCH models.

Instructor(s): Amitabh Chaudhary

Prerequisite(s): MPCS 50101 Math for Computer Science MPCS 55001 Algorithms MPCS 51042 Python Programming (or Programming core requirement with prior knowledge of Python) MPCS 53110 Foundations of Computational Data Analysis MPCS 53111 Machine Learning In all the above courses a grade of B+ or above is required. Please contact the instructor if you have, instead, equivalent courses or experience, or meet most but not all of the requirements.

Note(s): MPCS students only.

MPCS 53113. Natural Language Processing. 100 Units.

Can we predict how people will vote based on their twitter conversations? Can we identify pairs of researchers who will benefit from collaborating with each other based on their published articles? In this course we will study techniques for automatically detecting patterns and learning hidden structures in text data. Such techniques are of tremendous value due to the explosion in the amount of available text data, and their potential benefit to social sciences and businesses. We will learn the fundamental steps in the natural language processing, such as syntactic parsing or understanding the structure of a sentence, and semantic analysis or understanding the meaning of a sentence from the meanings of the words in it. These will help us build sophisticated models for text classification, such as for detecting sentiment or identifying fake news. We will see that the primary challenge is that natural languages are ambiguous. For instance, the sentence I made her duck can be interpreted in five different ways! So our models are probabilistic, and we resolve the ambiguity by training on large amounts of text corpora. We will study a variety of models in the context of text processing including Markov and hidden Markov models, naive Bayes, logistic regression, and neural networks. All through the course we will use Python and libraries such as the Natural Language Toolkit (NLTK) for processing real-world data.

Instructor(s): Amitabh Chaudhary Terms Offered: Summer

Prerequisite(s): MPCS 50103 Math for Computer Science MPCS Programming core requirement MPCS 53110 Foundations of Computational Data Analysis MPCS 53111 Machine Learning Equivalent courses or experience will be accepted with instructor permission.

Note(s): MPCS students only.

MPCS 53120. Applied Data Analysis. 100 Units.

This course provides a self-contained introduction to computational data analysis from an applied perspective. It is intended as a standalone course for students who do not want to pursue the full data analysis sequence in the MPCS. As such, students who have taken or are taking MPCS 53111 Machine Learning cannot register for this class. Students who have taken MPCS 53110 Foundations of Computational Data Analysis must obtain MPCS administration approval before registering for this class. The course will cover topics in basic probability theory, statistical inference, and basic machine learning models typically used in data analysis. Each topic will be accompanied by example illustrations using computational packages and software. Many of the topics covered form the basis of almost all algorithms and machine learning methods used in big data analysis. Emphasis will be given on using these techniques for problem solving. All work will be done in R

Prerequisite(s): MPCS 50103 and MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 54001. Networks. 100 Units.

Broadly, this course will focus on the history, theory and implementation of computer networks. We will discuss the low-level technologies that move bits around (such as Ethernet and WiFi), the high-level applications that are part of our everyday 21st-century lives (such as email, the Web, and mobile phones), and everything in between (security, TCP/IP). At the completion of this quarter, you will (or should!) be able to explain, in detail, how data makes it way around the Internet when you click on a web link, how you can drive around at 80 MPH talking on a cell phone without the call dropping, how you can make a streaming video call over a lossy wireless link without frame dropping or jitter. In short, we'll pull back the curtain on what can be a somewhat mysterious and magical part of working with computers.

Instructor(s): William Connor Terms Offered: Winter

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 55001. Algorithms. 100 Units.

The course is an introduction to the design and analysis of efficient algorithms, with emphasis on developing techniques for the design and rigorous analysis of algorithms rather than on implementation. Algorithmic problems include sorting and searching, discrete optimization, and algorithmic graph theory. Design techniques include divide-and-conquer methods, dynamic programming, greedy methods, graph search, as well as the design of efficient data structures. Methods of algorithm analysis include asymptotic notation, evaluation of recurrences, and the concepts of polynomial-time algorithms. NP-completeness is introduced toward the end of the course. Students who complete the course will have demonstrated the ability to use divide-and-conquer methods, dynamic programming methods, and greedy methods, when an algorithmic design problem calls for such a method. They will have learned the design strategies employed by the major sorting algorithms and the major graph algorithms, and will have demonstrated the ability to use these design strategies or modify such algorithms to solve algorithm problems when appropriate. They will have derived and solved recurrences describing the performance of divide-and-conquer algorithms, have analyzed the time and space complexity of dynamic programming algorithms, and have analyzed the efficiency of the major graph algorithms, using asymptotic analysis.

Instructor(s): Geradline Brady Terms Offered: Autumn Spring

Prerequisite(s): MPCS 50101 and MPCS 50103

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 55003. Intermediate Algorithms. 100 Units.

The course is a second course on the design and analysis of efficient algorithms, with emphasis on developing techniques for the design and rigorous analysis of algorithms rather than on implementation. Emphasis is placed on fundamental algorithms and advanced methods of algorithmic design. Techniques to be covered include network flow, dynamic programming, linear programming, randomization, and approximation algorithms. NP-complete problems and reductions will also be studied. Students who complete the course will have increased familiarity with many of the techniques that apply in the design of efficient algorithms and some acquaintance with problems known to be NP-complete.

Prerequisite(s): 1. MPCS 50103 Immersion Math or passing the placement exam. 2. A course in introductory algorithms. The student should have obtained a B+ or higher in both courses. The prior course in introductory algorithms must cover --- Basic time and space complexity of algorithms, asymptotic order of growth, and solving recurrences. -- Basic graph definitions, breadth-first and depth-first search, and topological ordering. -- Greedy algorithms, shortest paths in a graph, and minimum spanning trees. -- Divide and conquer algorithms, sorting and median selection algorithms. -- Basic data structures, arrays, linked lists, balanced trees, and heaps. If your prior course doesn't cover just one or two of the above topics, you may be allowed to take the course if you are committed to learning those on your own. In that case, or if you have other questions, please email the instructor. In you email include the exact topics covered in your prior course, and a copy of your transcript.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 55005. Advanced Algorithms. 100 Units.

The course begins with an in-depth study of computational intractability and NP-completeness, and follows it by studying practical algorithms for intractable problems: approximation algorithms and those based on local search. It then looks at how the power of random choices can be harnessed to avoid worst-case situations. The resulting randomized algorithms have been crucial in the success of modern computer systems. The next topic is amortized analysis, an advanced technique used to analyze situations in which algorithms maybe expensive in some of their operations, but are provably efficient over a sequence of operations.

Instructor(s): Amitabh Chaudhary Terms Offered: TBD

Prerequisite(s): This course requires a strong command of discrete mathematics, including discrete probability, and introductory algorithms. For discrete mathematics, students should have taken MPCS 50103 Mathematics for Computer Science: Discrete Mathematics and obtained a B+ or higher, or passed the corresponding placement exam. For introductory algorithms, students should have taken MPCS 55001 Algorithms and obtained a B+ or higher, or passed the corresponding placement exam.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 56420. Bioinformatics for Computer Scientists. 100 Units.

This course aims to introduce computer scientists to the field of bioinformatics. The vast amounts of data produced in genomics related research has significantly transformed the role of biological research. High-throughput automated biological experiments require advanced algorithms, implemented in high-performance computing systems, to interpret their results. We will focus on analyzing complex data sets in the context of biological problems. Students will design and implement systems that are reliable, capable of handling huge amounts of data, and utilize best practices in interface and usability design to accomplish common bioinformatics related problems. While this course should be of interest for students interested in biological sciences and biotechnology, techniques and approaches taught will be applicable to other fields. This course will present a practical, hands-on approach to the field of bioinformatics. The topics covered in this course will include: software, data mining, high-performance computing, mathematical models and other areas of computer science that play an important role in bioinformatics. Existing methods for analyzing genomes, sequences and protein structures will be explored, as well as computing infrastructure that support their efficient utilization. Students will be introduced to all of the biology necessary to understand the applications of bioinformatics algorithms and software taught in this course.

Instructor(s): Andrew Binkowski Terms Offered: Autumn

Prerequisite(s): MPCS 53001 and Core Programming requirements. Lectures and demonstrations will be conducted in Python. Python programming experience will be useful, but is not required as long as students are willing to dedicate sufficient time to obtain basic development and debugging skills in the language. The course is focused on developing solutions to biological problems, not on mastery of any particular language. Final projects will be implemented on Google Cloud Platform which supports Python, Java, PHP and Go.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 56511. Introduction to Computer Security. 100 Units.

This course introduces computer security principles and practices. Topics will range from classical cryptography to recent web application security risks listed in the OWASP Top 10. The course will emphasize both offense (i.e., attacker mindset) and defense (i.e., designing and building secure systems). Topics: • Threat modeling • Cryptography • TLS and HTTPS • Web application security • Network security • Authentication and access control • Memory safety and isolation • Trusted computing • Side channels • Anonymity and web privacy • Underground economy • Human factors • Security ethics • Cryptographic policy

Instructor(s): William Conner Terms Offered: Winter

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100. MPCS 52011 recommended. Familiarity with C, Java, and/or Python (required). Familiarity with Linux command line (recommended, but not required) Non MPCS students must meet prerequisites and complete the request form <http://tinyurl.com/mpcs-courseform>.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 56512. Application Security. 100 Units.

This course will introduce secure development practices for networked applications. Application vulnerabilities will be studied to motivate the mitigations presented in the course. Particular emphasis will be placed on Web applications and the OWASP Top Ten. Programming assignments will involve exploiting vulnerabilities and implementing defense mechanisms. Topics • Memory corruption • Code injection • Web vulnerabilities • Authentication and authorization • Session management • Containment and isolation • Cloud security • Secrets management • Threat modeling • Code auditing, testing, and patching

Instructor(s): William Conner Terms Offered: Spring

Prerequisite(s): Core Programming (required) One of the following courses is required: # MPCS 56511:

Introduction to Computer Security # MPCS 52553: Web Development MPCS 52011: Introduction to Computer Systems (recommended, but not required)

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 56515. Computer and Network Security. 100 Units.

The objective of this course is to provide a basic understanding of Information Technology security - and to build an understanding of the elements that should be in place for an IT environment to achieve an adequate security level. We will begin with a general overview of IT security and introduce a framework for addressing security needs across an enterprise. Major security objectives and technical mechanisms for attaining these objectives will be discussed, including cryptography, authentication systems, Public Key Infrastructure, and platform and network security mechanisms. This course will give an overview of the technical details involved in the platform and network levels of security, including hands-on usage of current tools used in the field. We will look at common TCP/IP applications and discuss their security vulnerabilities. The course material will be presented in a framework of understanding overall risks and how to address them. There will be a great deal of reading in this course. Students should have the ability to read and write in clear prose. Students in this course will be writing an in-depth paper or a project and should have the ability to write a substantial paper.

Instructor(s): Arlene Yetnikoff Terms Offered: Autumn

Prerequisite(s): Students in this course will use the Unix operating system as a basis of learning host security mechanisms and should have a basic familiarity with Unix as a prerequisite. Students should also be familiar with TCP/IP networks. Students will be installing, configuring and running security tools obtained from the Internet as a part of their classwork.

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 56530. Applied Cryptography. 100 Units.

Description not available at this time. Will update before quarter begins.

Instructor(s): William Connor Terms Offered: Autumn

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100

Note(s): Non MPCS students must meet prerequisites and complete the request form <http://tinyurl.com/mpcs-courseform>.

MPCS 56600. Introduction to Blockchain. 100 Units.

This course is a comprehensive technical introduction to relevant topics in the wider ecosystem surrounding blockchain. Our technological focus will include substantive topics in fundamental problems that blockchain is attempting to solve (and is generating), including algorithms, cryptography, security and trust, autopoietic peer-to-peer networking, distributed ledgers, double spending, proof of work and ownership issues, decentralized applications, smart contracts, and supporting technologies. With that said, this is not a course in economics or monetary theory, trading cryptocurrencies, nor is it a course on regulatory or legal issues surrounding blockchain, although we will touch on many of these topics throughout the course. We will also cover broader applications of blockchain technology beyond cryptocurrencies and ICOs including use cases from finance, insurance, science, healthcare, pharmaceuticals.

Prerequisite(s): MPCS 51036 or 51040 or 51042 or 51043 or 51100.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 57002. Independent Study. 100 Units.

TBD

Terms Offered: Autumn Spring Summer Winter

MPCS 57010. MPCS-Practicum. 100 Units.

This course is meant for MPCS students only. As part of its course offering, the MPCS gives students the option of doing a practicum under the supervision of a faculty or staff member (known as the practicum advisor). This practicum can be counted as elective credit towards the student's Masters degree. During a practicum, a student must develop a well-defined project requiring roughly 100 hours of work throughout a single academic quarter (i.e., an average of 10 hours per week). Throughout the year, the MPCS seeks project proposals from faculty and staff members interested in working with Masters students. These proposals are distributed to our students, who must then apply to work on a specific project.

Instructor(s): Borja Sotomayor

Note(s): MPCS Student Only

MPCS 58001. Numerical Methods. 100 Units.

This is a practical programming course focused on the basic theory and efficient implementation of a broad sampling of common numerical methods. Each topic will be introduced conceptually followed by detailed exercises focused on both prototyping (using matlab) and programming the key foundational algorithms efficiently on modern (serial and multicore) architectures. The ideal student in this course would have a strong interest in the use of computer modeling as predictive tool in a range of disciplines -- for example risk management, optimized engineering design, safety analysis, etc. The numerical methods studied in this course underlie the modeling and simulation of a huge range of physical and social phenomena, and are being put to increasing use to an increasing extent in industrial applications. After successfully completing this course, a student should have the necessary foundation to quickly gain expertise in any application-specific area of computer modeling.

Instructor(s): Andrew Siegel Terms Offered: Spring

Prerequisite(s): MPCS 50101 or programming waiver and MPCS 50103 or math waiver.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 58020. Time Series Analysis and Stochastic Processes. 100 Units.

Stochastic processes are driven by random events. They can be used to model phenomena in a broad range of disciplines, including science/engineering (e.g. computational physics, chemistry, and biology), business/finance (e.g. investment models and operations research), and computer systems (e.g. client/server workloads and resilience modeling). In many cases relatively simple stochastic simulations can provide estimates for problems that are difficult or impossible to model with closed-form equations. In this class we focus on the rudimentary ideas and techniques that underlie stochastic time series analysis, discrete events modeling, and Monte Carlo simulations. Course lectures will focus on the basic principles of probability theory, their efficient implementation on modern computers, and examples of their application to real world problems. Upon completion of the course, students should have an adequate background to quickly learn in depth specific Monte Carlo approaches in their chosen field of interest.

Instructor(s): Andrew Siegel Terms Offered: Summer

Prerequisite(s): MPCS 50101 or programming waiver; MPCS 50103 or math waiver recommended Languages:

Required: familiarity with C/C++, Python, or Java (other language options are acceptable, but consult instructor first). Recommended: C and Python.

Note(s): Non-MPCS students must receive approval from program prior to registering. Request form available online <https://masters.cs.uchicago.edu>

MPCS 65000. Reading and Research. 100 Units.

MASTER OF SCIENCE PROGRAM IN FINANCIAL MATHEMATICS

The Department of Mathematics (<https://math.uchicago.edu>) offers a separate Master of Science in Financial Mathematics degree. Students of the Financial Mathematics Program (<http://www-finmath.uchicago.edu>) develop a thorough understanding of the theoretical background of pricing models for financial derivatives and the underlying assumptions. Moreover, students learn to critically ascertain the applicability and limitations of these various models.

Faculty members and financial industry professionals work jointly to create a curriculum with relevancy to the field. Professors use a pedagogical approach emphasizing the use of computer simulations to illustrate the material. Through this approach, professors cover more material and students develop a thorough understanding of theory application while navigating the Program.

Professionals from the financial industry instruct a significant number of classes in the Program using methods to explore how models behave in practice under a variety of market conditions as well as to evaluate the validity of underlying assumptions and consequential violations of these assumptions. Students will learn to use these models to set up and evaluate the effectiveness of hedges by simulating various market conditions.

Full-time students following the five-quarter track complete the Financial Mathematics curriculum in five quarters, or 15 months. Students may elect to follow a three-quarter track, resulting in a more constrained curriculum with limited options for elective courses and must be enrolled full-time. Part-time students, on average, complete the Program in two to three academic years. The Program must be completed within four academic years from the date of matriculation. For the convenience of our working students, classes meet for three hours on weekday evenings.

Various software packages and data providers, (including Bloomberg terminals,) are licensed to the Program and will be provided free of charge.

The Financial Mathematics Program seeks candidates with a solid background in mathematics developed through majors such as mathematics, statistics, engineering, science, and economics. Additionally, relevant work experience and experience with computer programming skills, (including C++ and Python) are strongly taken into consideration by the Admissions Committee. We admit driven individuals that come from diverse educational, social, and geographic backgrounds. Candidates should be able to demonstrate excellence in both academics and leadership.

The courses listed below are subject to change each academic year. The current required courses can be found below:

FINM 32000	Numerical Methods	100
FINM 32600	Computing for Finance in C++ (*)	100
FINM 33000	Mathematical Foundations of Option Pricing	100
FINM 33150	Regression Analysis and Quantitative Trading Strategies	100
FINM 33410	Probability for Risk Management	050
FINM 33601	Fixed Income Derivatives	100
FINM 34500	Stochastic Calculus	100
FINM 36700	Portfolio Theory and Risk Management I	100
FINM 36702	Portfolio Theory and Risk Management II	050
FINM 37301	Foreign Exchange: Markets, Pricing and Products	50
Electives		250
Computing		200
Total Units		1300

* May be tested out of through placement exam

FINANCIAL MATHEMATICS COURSES

FINM 32000. Numerical Methods. 100 Units.

Implementing the theory introduced in Mathematical Foundations of Option Pricing (FINM 33000), this course takes a numerical/computational approach to the pricing and hedging of financial derivatives. Topics include: Trees as diffusion approximations; Finite difference methods for PDE solution; Monte Carlo methods for simulation; Fourier transform methods for pricing. Program requirement.

Instructor(s): R. Lee Terms Offered: Winter

FINM 32500. Computing for Finance in Python. 100 Units.

This course is intended to teach basic programming concepts and techniques to students desiring to work in the financial sector. It is tailored for students without prior programming experience. At the end of this class, students will have the necessary programming skills to be successful in their daily activities. We will cover the basics: control structures, data structures, functions, algorithms, and debugging. Additionally, we will cover object-oriented design and Python specific data handling. We will work on several projects aimed at building a real trading system.

Instructor(s): Sebastien Donadio Terms Offered: Autumn

Note(s): Counts toward computing requirement.

FINM 32600. Computing for Finance in C++ 100 Units.

No previous programming knowledge is assumed. In Computing for Finance in C++, we will introduce the syntax and semantics of C++ and basics of OO programming. As part of the course work, students will develop an OO option pricer using the Monte Carlo technique. Classes are taught using a combination of lectures and in class hands-on lab sessions. Program requirement.

Instructor(s): C. Liyanaarachchi Terms Offered: Winter

Note(s): Required if student does not pass the Computing for Finance in C++ placement exam. Counts toward computing requirement

FINM 32700. Advanced Computing for Finance. 100 Units.

This course is intended to teach advanced programming concepts and techniques to students desiring to work in the financial sector. It is tailored for students with basic knowledge in C++ programming. At the end of this class, students will have the necessary programming skills to be successful in their daily activities. We will cover the required skills to work as a quantitative researcher: advanced data structures (STL, Boost), parallel programming, inter-process communication, linear algebra computation, simulation and modeling. We will work on several projects aimed at building a real trading system including the implementation of a trading algorithm, handling the connectivity to an exchange/brokerage house and issues related to performance. Classes are taught using a combination of lectures and in class hands-on lab sessions.

Instructor(s): S. Donadio Terms Offered: Spring

Note(s): Counts toward computing requirement.

FINM 32850. Case Studies in Computing for Finance. 100 Units.

This course will introduce participants to the field of Computational Finance through real-world "end-to-end" case studies. The course will focus on the importance of data analytics and algorithmic processing and it will be centered around a series of examples that are representative of problems that practitioners in finance have to solve. The course is structured to cover two major themes; 1. Intro to Data analysis and Numerical algorithms in Computational Finance, and 2. Case studies of "end-to-end" system implementations. Prerequisites and recommended background: As a prerequisite, students will be required to have successfully completed two of the following courses: Computing for Finance in Python, Computing for Finance in C++ (or passed the placement exam) and Advanced Computing for Finance. The participants should also have basic familiarity with the use of MS Excel spreadsheets & VBA, as well as with the use of a high level programming language such as Python or R.

Instructor(s): C. Doloc Terms Offered: Autumn

Prerequisite(s): Two of the following three courses required: FINM 32500, FINM 32600 (or having passed the Computing for Finance in C++ placement exam), FINM 32700.

Note(s): Program elective.

FINM 32950. Introduction to HPC in Finance. 50 Units.

This short course introduces parallel programming and related concepts using some popular technologies (e.g. Intel's family of parallel models, OpenMP, CUDA etc.) at an introductory level. Application performance improvement using a systematic and structured approach is illustrated. Applications in finance are used to illustrate how to exploit parallelism to solve large scale computing problems. No prior knowledge of parallel computing is assumed. Previous coursework in C++ or Python (FINM 32500 or 32600 or 32700), or passing the FINM computing placement exam is required.

Instructor(s): C. Liyanaarachchi Terms Offered: Summer

Prerequisite(s): 1 of the following 3: FINM 32500, FINM 32600 (or having passed the Computing for Finance in C++ placement exam), FINM 32700

Note(s): Program elective.

FINM 33000. Mathematical Foundations of Option Pricing. 100 Units.

Introduction to the theory of arbitrage-free pricing and hedging of financial derivatives. Topics include: Arbitrage; Fundamental theorems of asset pricing; Binomial and other discrete models; Black-Scholes and other continuous-time Gaussian models in one-dimensional and multidimensional settings; PDE and martingale methods; Change of numeraire. Program requirement.

Instructor(s): R. Lee Terms Offered: Autumn

FINM 33150. Regression Analysis and Quantitative Trading Strategies. 100 Units.

Quantitative trading strategies, employing investment decisions based on model output, are a major component of business operations in the finance industry worldwide. We will present the major components of these strategies as found in several asset classes (equities, futures, credit, FX, interest rates and energy). A large proportion of the models involved in quantitative strategies are expressible in terms of regressions. We will cover most of the ways they are used, including practical tricks and considerations, and concentrating particularly on achieving trustworthy performance. Mathematically, we will cover the computation of linear regressions with and without weights, in univariate and multivariate cases, having least squares or other objective functions. Of the major computation technologies actively used by the finance industry (C/C++, Matlab, Java, R, VB/Excel, C#, Python) we have chosen R and Python for numerical computation, with (very) light usage of Excel and with data coming from Quandl and some proprietary sources. Program requirement.

Instructor(s): B. Boonstra Terms Offered: Spring

FINM 33160. Machine Learning in Finance. 100 Units.

The course will focus on two Machine Learning categorization models: Logistic Regression and Support Vector Machines, both binary and multi-category. The course will develop the mathematical foundations for these models and the optimization algorithms for training them on actual data. The algorithms will be implemented in Python. The necessary parts of Python programming will be taught along the way as they are needed. The Machine Learning models will be used to train models for trading stocks based on both fundamental and technical data. The models will be implemented in Python, using several Machine Learning libraries such as Scikitlearn and back-tested using the web service Quantopian. At the end of the course, the students will develop and implement their own trading models and analyze the performance of their models. Program elective.

Instructor(s): N. Nygaard Terms Offered: Spring

Note(s): Students may apply FINM 37701 or FINM 33160 toward the computing requirement, but not both. If both are taken, the second will count toward the elective requirement.

FINM 33161. Machine Learning in Finance 1. 50 Units.

Part 1 of a 2 part course. The course will focus on two Machine Learning categorization models: Logistic Regression and Support Vector Machines, both binary and multi-category. The course will develop the mathematical foundations for these models and the optimization algorithms for training them on actual data. The algorithms will be implemented in Python. The necessary parts of Python programming will be taught along the way as they are needed. The Machine Learning models will be used to train models for trading stocks based on both fundamental and technical data. The models will be implemented in Python, using several Machine Learning libraries such as Scikitlearn and back-tested using the web service Quantopian. At the end of the course, the students will develop and implement their own trading models and analyze the performance of their models. Program elective.

FINM 33162. Machine Learning in Finance 2. 50 Units.

Part 2 of a 2 part course. The course will focus on two Machine Learning categorization models: Logistic Regression and Support Vector Machines, both binary and multi-category. The course will develop the mathematical foundations for these models and the optimization algorithms for training them on actual data. The algorithms will be implemented in Python. The necessary parts of Python programming will be taught along the way as they are needed. The Machine Learning models will be used to train models for trading stocks based on both fundamental and technical data. The models will be implemented in Python, using several Machine Learning libraries such as Scikitlearn and back-tested using the web service Quantopian. At the end of the course, the students will develop and implement their own trading models and analyze the performance of their models. Program elective.

FINM 33165. Probabilistic Programming and Deep Learning. 100 Units.

The course is a continuation of the course Machine Learning in Finance and introduces Deep Learning models i.e. Artificial Neural Networks (ANN). We will develop the training algorithms for Deep Learning Networks in particular Stochastic Gradient Descent and discuss how an ANN can be thought of as a composition of the models developed in the previous course. We will also study the Bayesian aspects of ANNs. After the basic properties are developed we will turn to Convolutional Deep Learning models and apply them to analyzing patterns in financial data and forecasting short term price movements. The results from the Deep Learning approach will be used to develop trading strategies and comparing results from these strategies to results obtained from simpler Machine Learning models. The course uses the Python programming languages and several packages implementing Deep learning models, Theano, Tensorflow and Keras, as well as Scikitlearn and we will spend a significant amount of time learning to master these packages. We will also discuss how the use of GPU computing can dramatically increase the computational performance of the implementations of training algorithms. The course can be followed without having taken the previous course if one is willing to read up on the Machine Learning models and the training algorithms discussed in that course. A working knowledge of Python will be assumed.

Instructor(s): Niels Nygaard Terms Offered: Autumn

Prerequisite(s): FINM 33160 or FINM 33161/33162 or Consent of Instructor

FINM 33170. Financial Statistics: Time Series, Forecasting, Mean Reversion, and High Frequency Data. 100 Units.

This course is an introduction to the econometric analysis of high-frequency financial data. This is where the stochastic models of quantitative finance meet the reality of how the process really evolves. The course is focused on the statistical theory of how to connect the two, but there will also be some data analysis. With some additional statistical background (which can be acquired after the course), the participants will be able to read articles in the area. The statistical theory is longitudinal, and it thus complements cross-sectional calibration methods (implied volatility, etc.). The course also discusses volatility clustering and market microstructure.

Terms Offered: Winter

Prerequisite(s): STAT 39000/FINM 34500 (may be taken concurrently), also some statistics/econometrics background as in STAT 24400–24500, or FINM 33150 and FINM 33400, or equivalent, or consent of instructor.

Equivalent Course(s): STAT 33910

FINM 33180. Multivariate Data Analysis via Matrix Decompositions. 100 Units.

This course is about using matrix computations to infer useful information from observed data. One may view it as an "applied" version of Stat 30900 although it is not necessary to have taken Stat 30900; the only prerequisite for this course is basic linear algebra. The data analytic tools that we will study will go beyond linear and multiple regression and often fall under the heading of "Multivariate Analysis" in Statistics. These include factor analysis, correspondence analysis, principal components analysis, multidimensional scaling, linear discriminant analysis, canonical correlation analysis, cluster analysis, etc. Understanding these techniques require some facility with matrices in addition to some basic statistics, both of which the student will acquire during the course. Program elective.

Instructor(s): L. Lim Terms Offered: Autumn

Equivalent Course(s): STAT 32940, CAAM 32940

FINM 33450. Stochastic Calculus. 100 Units.**FINM 33601. Fixed Income Derivatives. 100 Units.**

The topics in this course include an introduction to fixed income markets, a detailed review of fixed income derivative instruments, and a general approach to bootstrapping the LIBOR term curve from available market quotes. We also discuss the application of the Black-Scholes-Merton model to pricing European swaptions and caps/floors. Students will study a statistical approach to building a foundation for the Heath-Jarrow-Morton framework of interest rate models. Students should be prepared for the extensive use of Stochastic Calculus.

Instructor(s): Y. Balasanov, L. Doloc, J. Greco Terms Offered: Spring

FINM 34000. Probability and Stochastic Processes. 50 Units.

This course provides a mathematical introduction to probability and stochastic processes. While the main focus is discrete probability and combinatorial analysis, some continuous probability is discussed. Examples and applications are emphasized over theory.

Instructor(s): Charles Smart Terms Offered: Autumn. This course takes place in the first five weeks of the quarter.

Note(s): Required.

FINM 34500. Stochastic Calculus. 100 Units.

The course starts with a quick introduction to martingales in discrete time, and then Brownian motion and the Ito integral are defined carefully. The main tools of stochastic calculus (Ito's formula, Feynman-Kac formula, Girsanov theorem, etc.) are developed. The treatment includes discussions of simulation and the relationship with partial differential equations. Some applications are given to option pricing, but much more on this is done in other courses. The course ends with an introduction to jump process (Levy processes) and the corresponding integration theory. Program requirement.

Instructor(s): G. Lawler Terms Offered: Winter

Equivalent Course(s): STAT 39000

FINM 35000. Topics in Economics. 100 Units.

This course deals with the microeconomic foundations of financial decision making and their implications for the real economy. We will study how firms optimally chose their financing strategy and what are the consequences of firm-level frictions on investments and capital structure. We will begin with the theories of classical corporate finance, optimal contracting, collateralized lending and managerial compensation. Then, we will explore the consequences of asymmetric information between agents on security design and asset markets. Financial constraints naturally emerge from these frameworks and we will study their macroeconomic implication. Money and monetary policy will be discussed, with a particular focus on the effects of monetary policy on financial markets. Specific attention will be paid to financial intermediaries and banks, in their dual role as investment vehicles and liquidity providers, thus leading to a discussion of the economics of securitization, liquidity demand and provision and bank runs. If time permits, in the final part of the class we will introduce dynamic models, often in continuous time, in order to study optimal asset management.

Instructor(s): Xian Philip Xu Terms Offered: Autumn

Note(s): Program elective.

FINM 35500. Corporate and Credit Securities. 100 Units.

This course analyzes corporate and credit-sensitive securities, including private equity and corporate debt. Students will use financial statements to estimate risk, forecast cash flows and value real options. The class considers the implications for event-driven trading strategies and portfolio management. Additionally, it covers key issues in corporate finance that are relevant for quantitative analysis of corporate securities and credit markets.

Instructor(s): Mark Hendricks Terms Offered: Spring

Note(s): Elective.

FINM 35902. Seminar on Banking and the Financial Crisis. 000 Units.

The seminar series will discuss issues in quantitative finance as illustrated by the financial crisis, the regulatory response, and ongoing current events.

FINM 35910. Applied Algorithmic Trading. 50 Units.

Applied Algorithmic Trading will introduce the required background knowledge and processes necessary for the design and implementation of algorithmic trading models within the context of industry requirements. The objective of the course is to bring together the numerous disciplines covered in other Financial Mathematics courses, focused on quantitative trading, and combine them into a workable industry level presentation. This course will walk students through the process of generating trading ideas, quantifying the trading process, risk-based modeling concepts, back-testing and optimization techniques, and key industry metrics used to evaluate algorithmic trading model performance. Lastly, the course will stress the leadership and presentation skills necessary to make a successful pitch in an industry setting. Program elective.

Instructor(s): Chris Gersch Terms Offered: Autumn

Prerequisite(s): FINM 32400, FINM 33150, or consent of instructors

FINM 36000. Project Lab. 50 Units.

Program elective.

Instructor(s): R. Lee Terms Offered: Autumn, Spring, Summer, Winter

Prerequisite(s): Consent of instructor.

FINM 36001. Project Lab 2. 000 Units.

Program elective.

Instructor(s): R. Lee Terms Offered: Autumn, Spring, Summer, Winter

Prerequisite(s): FINM 36000 and consent of instructor.

FINM 36700. Portfolio Theory and Risk Management I. 100 Units.

The course begins by covering the classic foundations of portfolio theory, including mean-variance mathematics and the standard equity factor models used in attribution and risk management. It goes beyond these classic results to cover return dynamics, statistical uncertainty, model selection, market frictions, and non-convex optimization. Throughout, the course examines issues of application and implementation relevant for professionals in various areas of quantitative finance. Case studies cover a range of asset classes, investment strategies, and industries.

Instructor(s): Mark Hendricks Terms Offered: Autumn

Note(s): Program requirement.

FINM 36702. Portfolio Theory and Risk Management II. 50 Units.

This course combines a technical topic with an analysis of situations that produce outsized losses. Students gain familiarity with the credit portfolio loss models that are used to limit trading, allocate costs, and determine required bank capital. They also review the interplay between the technical and human factors that has led to prominent risk control failures. Unique in the Financial Math program, students make in-class presentations that detail the optimal responses of various market participants to unexpected circumstances.

Instructor(s): Jon Frye Terms Offered: Winter

Prerequisite(s): FINM 36700 Portfolio Theory and Risk Management I

Note(s): Required. This is a five-week course taught in the first-half of the quarter.

FINM 37301. Foreign Exchange: Markets, Pricing and Products. 50 Units.

This course will examine international currency markets, financial products, and applications of quantitative models with an emphasis on the quantitative methods and derivative products in common use today. Topics will include a) pricing for FX products in theory and in practice, specifically spot, forward, futures, deposits, cross-currency swaps, non-deliverable contracts, and FX options, b) FX markets in practice, exchange rate regimes, international monetary systems, FX modeling and forecasting, and c) practical market applications of FX options, exotic options, and hybrid products.

Instructor(s): Anthony Capozzoli Terms Offered: Winter

Note(s): Required. This is a five-week course taught in the second-half of the quarter.

FINM 37601. Mathematical Market Microstructure: An Optimization Approach. 50 Units.

Mathematical Market Microstructure: An Optimization Approach for Dynamic Inventory Management and Market Maker Quoting. This course is an introduction to mathematical theory of market microstructure, with key applications in solving optimal execution problems with inventory management. We will start from discussions of market design, global market structure, algorithmic trading and market making practices. We will then present traditional market microstructure theory in the context of dealer inventory management and information-based quoting and pricing. Latest literature about realized volatility calculations and intraday implied volatility surface modeling using high-frequency data will be reviewed. The subject of order book dynamics research with applications to market impact modeling will be discussed as well. Finally, a review on continuous-time stochastic control theory will be provided and a discussion will be given on execution algorithm development and market making strategy design using stochastic programming techniques. The main goal of this course is to provide a clear discussion on key mathematical treatments and their practical applications of market microstructure problems, in particular relating to price discovery and utility optimization for certain transaction processes with non-trivial transaction cost present. Program elective.

Instructor(s): H. Chou Terms Offered: Autumn

Note(s): This is a five-week course taught in the first half of the quarter.

FINM 37602. Mathematical Market Microstructure w/o Rationality Assumptions. 50 Units.

Just like the view on micro world made us rethink our theories about the laws of physics previously based on macro world experience, algorithmic trading at extremely low latency exposes us to new phenomena and demands new mathematical models for their analysis. Objectives of this course are: introducing students to some models that have become important for analysis of market microstructure in recent years and show how they can be applied to low latency trading and risk management. We start with a review of the main features of the market behavior at ultra-low latency, explain why we prefer to look at the market events with "frog's eye" and concentrate on mathematical models consistent with Principle of Ma. During the course we study stochastic processes that describe market behavior at the microstructure level. Among them are Poisson, Cox, Ammeter, Hawkes and other processes. Students will learn how simulate each of the processes, fit it to market data and interpret the results. We will relate these processes to common approaches to modeling market price formation and limit order book behavior. Demonstrations and applications will be implemented in R. Students will work with some real market data examples. Classes consist of lecture part and in-class workshop. Students are required to come with their laptop computers with installed R. Some background in probability theory, statistical methods and statistical data analysis with R is recommended.

Instructor(s): Y. Balasanov Terms Offered: Autumn

Note(s): This is a five-week course taught in the second half of the quarter.

FINM 37700. Introduction to Finance and Markets. 50 Units.

This course is an introduction to the basics of finance and financial markets. It assumes minimal finance/markets background with the option for experienced students to test out during a placement exam in the first week. Topics include: financial systems, financial returns, capital markets, and financial management. Program requirement.

Instructor(s): P. Hirschboeck Terms Offered: Autumn

Note(s): Required if student does not pass the Introduction to Finance and Markets placement exam. This is a five-week course taught in the first half of the quarter.

FINM 38000. Financial Mathematics Practicum. 000 Units.

Program elective. Student must be CPT approved by FINM and OIA.

Instructor(s): Roger Lee Terms Offered: Autumn Spring Summer Winter

FINM 38001. Financial Mathematics Practicum II. 50 Units.

Elective. Student must be CPT-approved by FINM and OI

Instructor(s): Roger Lee Terms Offered: Autumn Spring Summer Winter

FINM 38500. Career Seminar. 50 Units.

Presentations/workshops/networking events related to career development in quantitative finance. Program requirement.

Instructor(s): Career Development Office Terms Offered: Autumn



MASTER OF SCIENCE PROGRAM IN THE PHYSICAL SCIENCES

DIRECTOR

- Mark Oreglia

PROGRAM DESCRIPTION

The Master of Science Program in the Physical Sciences Division (MS-PSD) (<http://msspsd.uchicago.edu>) at the University of Chicago is a program designed for students who wish to broaden or deepen their knowledge of the physical and mathematical sciences. It should be especially valuable to those seeking to prepare for further graduate work, including those who wish to prepare for a graduate program in a field outside of their undergraduate major. MS-PSD students have the opportunity to work with faculty members in Astronomy & Astrophysics (<http://astro.uchicago.edu>), Biophysical Sciences, (<http://biophysics.uchicago.edu>) Chemistry (<http://chemistry.uchicago.edu>), Geophysical Sciences (<http://geosci.uchicago.edu>), Mathematics (<http://www.math.uchicago.edu>), Physics (<http://physics.uchicago.edu>), and to take supplemental coursework in Computer Science (<http://www.cs.uchicago.edu>), Financial Mathematics (<http://finmath.uchicago.edu>), and Statistics. (<http://www.stat.uchicago.edu>) The MS-PSD program allows students, in consultation with the Faculty Director, to design programs of study to meet individual student needs. This flexibility combined with the rigor of UChicago courses makes the program unique.

Students normally complete the M.S. in Physical Sciences in nine-months (three quarters). The program is administered by the PSD Dean of Students office and directed by Professor James E. Pilcher, Professor Emeritus in the Department of Physics, Enrico Fermi Institute, and the College.

COURSES AND MASTER'S PROJECT

MS-PSD students are required to complete nine courses, including a master's thesis project. Students choose from quarterly course offerings (https://coursesearch.uchicago.edu/psc/prdguest/EMPLOYEE/HRMS/c/UC_STUDENT_RECORDS_FL.UC_CLASS_SEARCH_FL.GBL) in physical sciences departments. At least four of the courses must be graduate-level courses in a single department or associated with a specific interdepartmental track, such as environmental science, biochemistry/physics, computational methods in physical science, and optics/imaging. To accommodate students who seek to broaden their knowledge of the physical sciences as well as those seeking to transition to a new field, students may be allowed to take as many as three advanced undergraduate courses in fields outside of their undergraduate majors. In all cases the Director must approve the chosen curricula.

For experimentalists, a typical master's project might consist of performing or assisting with a laboratory research experiment. For theorists, a typical master's project might consist of performing some numerical simulation experiments. Students normally choose their projects in the winter quarter, carry them out during the spring quarter, and summarize their projects' results in a required master's paper.

QUESTIONS

Prospective or current students should contact the Associate Dean of Students in the Physical Sciences Division with questions about the program and/or the application process:

Laura Rigazzi
773-702-9708
lrigazzi@uchicago.edu



DEPARTMENT OF ASTRONOMY AND ASTROPHYSICS

Chair

- John E. Carlstrom

Professors

- John E. Carlstrom
- Fausto Cattaneo
- Hsiao-Wen Chen
- Wendy L. Freedman
- Joshua A. Frieman
- Michael D. Gladders
- Nickolay Y. Gnedin
- Doyal A. Harper, Jr.
- Craig J. Hogan
- Dan Hooper
- Wayne Hu
- Daniel E. Holz
- Alexei M. Khokhlov
- Edward W. Kolb
- Andrey V. Kravtsov
- Richard G. Kron
- Stephan S. Meyer
- Angela V. Olinto
- Paolo Privitera
- Robert Rosner
- Michael S. Turner

Associate Professors

- Jacob L. Bean
- Daniel Fabrycky

Assistant Professors

- Bradford A. Benson
- Damiano Caprioli
- Chihway Chang
- Clarence L. Chang
- Alex Drlica-Wagner
- Leslie Rogers
- Erik Shirokoff
- Irina Zhuravleva

Emeritus Faculty

- Kyle M. Cudworth
- Roger H. Hildebrand
- Lewis M. Hobbs
- Edward J. Kibblewhite
- Arieh Königl
- Donald Q. Lamb, Jr.
- Richard H. Miller
- Takeshi Oka
- Patrick E. Palmer

- Eugene N. Parker
- Noel M. Swerdlow
- James W. Truran, Jr.
- Peter O. Vandervoort
- Donald G. York

Research Faculty

- Thomas Crawford
- Vikram Dwarkadas
- Priscilla Frisch
- Richard Kessler
- Brian Nord
- Stephen Padin
- Andreas Seifahrt
- Petros Tzeferacos

Faculty in the Department of Astronomy and Astrophysics work on a wide range of topics at the frontiers of astrophysics: from understanding the beginning of the Universe to the search for habitable extrasolar planets; from the formation and evolution of the earliest galaxies to modeling the most energetic events in the modern Universe; from exploring our own solar system to the largest structures of the Universe. The department participates in major facilities that support the programs of our research groups. Many of these projects take advantage of connections with the neighboring national laboratories, Argonne and Fermilab, for both intellectual and technical resources. Research groups have access to leading telescopes worldwide, including the 6.5-m Magellan Telescopes at Las Campanas, Chile; the Dark Energy Survey at Cerro Tololo Inter-American Observatory in Chile; and the South Pole Telescope, with its ongoing development of powerful new imagers for measuring the Cosmic Microwave Background. Departmental researchers also make use of a number of telescopes (Hubble, Kepler, Chandra, Fermi, and others) and are actively developing new programs for EUSO, POEMMA, JWST, WFIRST, TESS, SOFIA and LSST. Chicago is an active participant in gravitational waves research as a member of LIGO, leading the development of the Holometer at Fermilab, and studying extreme cosmic particles at the Auger Observatory. We are a founding member of the world's largest optical telescope, the 25-meter Giant Magellan Telescope, which is now under construction in the Chilean Andes with first light expected early in the next decade.

PROGRAM REQUIREMENTS

The requirements for the Ph.D. degree in Astronomy and Astrophysics are satisfied through the following steps:

- Completion of required core graduate courses
- Full-time scholastic residence of at least 300 units of coursework per quarter, including summer
- Completion of one to three pre-candidacy research projects
- Successful completion of a two-part Candidacy Exam
- Identification of a Thesis Advisor
- Formation of a Thesis Committee
- Thesis research and preparation
- Final Examination

ADVISING/MENTORING

Incoming students are assigned a faculty mentor who will advise and guide the student as they navigate the graduate program. Students are invited to seek out potential research supervisors as early as possible. Engagement with research is encouraged and supported by the program structure and through departmental events. Each week there are various talks, seminars, and colloquia highlighting current research by departmental members and visitors that bring together students, faculty, research scientists and post-docs as a vibrant intellectual community. These occasions help facilitate discovery of research areas and projects that may be of interest to incoming students.

COURSE REQUIREMENTS

During the first and second years, students complete one core course per academic quarter, and may choose to take elective courses. The core courses are:

- ASTR 30100 Stars
- ASTR 30300 Interstellar Matter
- ASTR 30400 Galaxies

- ASTR 31000 Cosmology I
- ASTR 31100 High Energy Astrophysics
- ASTR 30600 Detection of Radiation

First- and second-year students also take ASTR 49900 Graduate Research Seminar each quarter. A significant fraction of time in the first two years is devoted to research projects; this work, organized as ASTR 37100 Precandidacy Research, will be presented as part of the two-part Candidacy Exam taken in the Autumn and Spring Quarters of the second year. Advancement to candidacy is made when a student has successfully passed the two-part Candidacy Exam and established a Thesis Committee. After candidacy is established, students enroll in ASTR 49400 Post-Candidacy Research and may also take electives of advanced coursework.

DISSERTATION AND FINAL EXAMINATION

The Ph.D. thesis may be a single-author or multiple-author paper that is submitted to a research journal of high quality and judged to be suitable for publication by the student's full Thesis Committee. This research is presented to the Thesis Committee in a Final Examination to engage in dialogue and debate, and receive constructive criticism. Final examinations are public events attended by the departmental community. Recent theses (<http://astro.uchicago.edu/events/phd-thesis-defense.php>) abstracts are published on the Department of Astronomy and Astrophysics (<http://astro.uchicago.edu>) website.

CONTACTS

For general information about application procedures, please contact the Student Affairs Administrator, Laticia Rebeles, irebeles@oddjob.uchicago, 773-702-9808. Additional information regarding the academic program is available on the Department of Astronomy and Astrophysics (<http://astro.uchicago.edu>) website.

ASTRONOMY AND ASTROPHYSICS COURSES

ASTR 30100. Stars. 100 Units.

Introduction to stars (physical and observational), hydrodynamics of self-gravitating fluids, statistical mechanics and equations of state, energy transport, astrophysical nuclear reactions, stellar models, advanced topics.

Instructor(s): Fausto Cattaneo Terms Offered: Autumn

Prerequisite(s): Open to advanced undergraduates by consent of instructor.

ASTR 30300. Interstellar Matter. 100 Units.

Interstellar medium, collision-less systems, distribution of stars in the solar neighborhood, stellar kinematics/dynamics, observations of galactic large-scale structure, theory of galactic structure and evolution.

Instructor(s): Hsiao-Wen Chen Terms Offered: Winter

Prerequisite(s): Open to advanced undergraduates by consent of instructor.

ASTR 30400. Galaxies. 100 Units.

The observed universe, the universe at high redshift, early universe microwave background radiation, relativistic homogeneous isotropic cosmologies, evolution of structure in the universe, primordial nucleosynthesis.

Instructor(s): Irina Zhuravleva Terms Offered: Spring

Prerequisite(s): Open to advanced undergraduates by consent of instructor.

ASTR 30500. Radiation Processes in Astrophysics. 100 Units.

Most of what we know about the Universe comes from detection of electromagnetic radiation emitted by individual sources or by diffuse media. #Once we understand the processes by which the radiation was created and the processes by which the radiation is scattered or modified as it passes through matter, we can address the physical nature of the sources. #The physics of radiation processes includes electricity and magnetism; quantum mechanics and atomic and nuclear structure; statistical mechanics; and special relativity.

Instructor(s): Damiano Caprioli Terms Offered: Autumn

Prerequisite(s): PHYS 15400; ASTR 13300 and PHYS 15400 required for students majoring in Astrophysics.

Equivalent Course(s): ASTR 25400

ASTR 30600. Detection of Radiation. 100 Units.

Radiation as a random process, optical coherence, and signal analysis in spatial and temporal domains, along with the detection and measurement of radiation with astronomical instruments.

Instructor(s): Brad Benson Terms Offered: Spring

Prerequisite(s): Open to advanced undergraduates by consent of instructor.

ASTR 31000. Cosmology I. 100 Units.

This course presents an introduction to the principles of cosmology. The first part introduces homogeneous, relativistic cosmologies and covers the Robertson-Walker metric, dynamics in the presence of matter, radiation, and dark energy, the universe as a function of time and redshifts, and techniques for calculating observable quantities. The next part covers the growth and evolution of structure in the universe including the formation of clusters and voids, correlation functions, and the mass spectrum. The next part covers the physics of the early universe, including inflation, primordial nucleosynthesis, and recombination. The final part covers current topics in cosmology, including analysis of the cosmic microwave background and tests for detecting and measuring dark matter and dark energy.

Instructor(s): Craig Hogan Terms Offered: Autumn

Prerequisite(s): Open to advanced undergraduates by consent of instructor.

ASTR 31100. High Energy Astrophysics. 100 Units.

This course covers a wide range of phenomena associated with the astrophysics of high energy photons, cosmic rays and neutrinos, including the processes of ionization, bremsstrahlung, synchrotron, pion production, Compton and inverse Compton scattering, as well as cosmic ray acceleration. Specific sources of high energy emission will also be discussed, including active galaxies, pulsars, gamma-ray bursts and supernova remnants.

Instructor(s): Damiano Caprioli Terms Offered: Winter

Prerequisite(s): Open to advanced undergraduates by consent of instructor.

ASTR 32100. Cosmology II. 100 Units.

Study of physical cosmology with emphasis on the standard big-bang model and its observational and experimental tests.

Instructor(s): Dan Hooper Terms Offered: Winter

Prerequisite(s): Open to advanced undergraduates who have taken Cosmology I by consent of instructor.

ASTR 33000. Computational Physics and Astrophysics. 100 Units.

Basic computational methods useful for astrophysics, supplemented by specific examples drawn primarily from astrophysics. Starting with basics (e.g., precision, errors and error analysis) and basic computational methods (differentiation, integration/quadrature, Monte Carlo, numerical linear algebra), and then discussing solution of problems posed in terms of ordinary and partial differential equations.

Instructor(s): Andrey Kravtsov Terms Offered: Not offered in 2019-2020.

Prerequisite(s): Open to advanced undergraduates by consent of instructor.

Note(s): Not offered in 2019-2020.

ASTR 35900. Physics of Planetary Interiors. 100 Units.

This course considers the physical processes governing the interior structure and evolution of planets, both those orbiting the Sun and exoplanets. Topics include an introduction to condensed matter physics relevant to planet interiors; properties of planetary materials; observational constraints; planet modeling; thermal histories; differentiation and core formation; connection to planetary atmospheres; and magnetic field generation.

Instructor(s): Leslie Rogers Terms Offered: Winter

Prerequisite(s): Open to third- and fourth-year undergraduate students majoring in Astrophysics, Physics or the Geophysical Sciences, or students who have completed two quarters of Calculus.

ASTR 37100. Precandidacy Research. 300.00 Units.

Students arrange with a faculty research supervisor to conduct a short-term independent research project lasting one or more quarters. Research completed in ASTR 37100 is presented as part of the student's candidacy exams.

Instructor(s): Rich Kron Terms Offered: Autumn Spring Summer Winter

ASTR 39900. Reading And Research: Astronomy. 300.00 Units.

Readings and Research for working on their PhD.

Note(s): This course has been replaced by ASTR 49400.

ASTR 40800. The Perturbed Universe. 100 Units.

This seminar course will cover inflation as the source of structure in the universe and its observational signatures. Topics will include relativistic perturbation theory, canonical and general single field inflationary models, primordial non-Gaussianity, and gravitational waves.

Instructor(s): Wayne Hu Terms Offered: Autumn

ASTR 41200. Science with Large Astronomical Surveys. 100 Units.

The last several years have seen a veritable explosion of novel astronomical survey programs covering large areas of sky with unprecedented sensitivity. This course will explore the wide variety of science that can be done with surveys like the Sloan Digital Sky Survey, the Dark Energy Survey, the Gaia satellite, and the upcoming Large Synoptic Survey Telescope. Science topics will include our solar system, our Galaxy, the Local Group, distant galaxies, and cosmological measurements of our Universe. We will familiarize ourselves with the hardware and software components of astronomical surveys, before diving into hands-on analysis of public data sets. Students will learn computational and statistical techniques for analyzing large astronomical data sets.

Instructor(s): Alex Drlica-Wagner Terms Offered: Spring. Not offered in 2019-2020.

Prerequisite(s): Third- or fourth-year standing in the College and completion of intermediate-level courses in the Physical Sciences; or by consent of instructor.

Note(s): This course is aimed at undergraduate and graduate students in the Physical Sciences. Not offered in 2019-2020.

Equivalent Course(s): ASTR 28500

ASTR 43000. Plasma Astrophysics. 100 Units.

This course will give a general introduction to the theory of plasmas with particular emphasis on processes of astrophysical interest. Topics presented will include: Physical description of a plasma and plasma parameters: Debye length, plasma frequency, cyclotron frequency, Larmor radius; single particle motion and adiabatic invariants; kinetic theory and the Vlasov equation; magneto-hydro-dynamics and dynamo theory; plasma waves; waves in a cold and hot plasma/plasmas; Landau damping; collisional processes.

Instructor(s): Fausto Cattaneo Terms Offered: Spring

ASTR 44800. Cosmic Microwave Background. 100 Units.

The first half of the course will be lectures with the goal of establishing a common denominator, and the second half will be research. The course requires a final project to be presented in class.

Instructor(s): Wayne Hu Terms Offered: Not offered in 2019-2020.

Prerequisite(s): Prerequisites are graduate-level cosmology and general relativity.

Note(s): Not offered in 2019-2020.

ASTR 45900. What Makes a Planet Habitable? 100 Units.

This course explores the factors that determine how habitable planets form and evolve. We will discuss a range of topics, from the formation of planets around stars and the delivery of water, to the formation of atmospheres, climate dynamics, and the conditions that allow for the development of life and the evolution of complex life. Students will be responsible for periodically preparing presentations based on papers in peer-reviewed journals and leading the discussion. This course is part of the College Course Cluster program: Climate Change, Culture and Society.

Instructor(s): Edwin Kite Terms Offered: Winter

Equivalent Course(s): GEOS 22060, GEOS 32060

ASTR 46100. Dynamics of Exoplanets. 100 Units.

Exoplanets are planets that orbit other stars. As most detection methods are indirect, planets' orbital dynamics is key to basic characterization, and it was historically important to confirm their existence. Their surprising orbital properties challenged planet formation and evolution theories, prompting further development of dynamical theories. This course covers orbital mechanics of N-body systems from the short-term, relevant to observations such as transit-timing variations, all the way to billion-year timescales, relevant to the dynamical winnowing of unstable systems. It covers highly eccentric and inclined orbits, scattering and resonant dynamics, planetary orbits in binary star systems, the additional physics of tidal dissipation and orbital migration due to a gas disk, and current research topics.

Instructor(s): Daniel Fabrycky Terms Offered: Not offered in 2019-2020.

Note(s): Not offered in 2019-2020.

ASTR 49400. Post-Candidacy Research. 300.00 Units.

Independent research undertaken towards completion of the dissertation.

Instructor(s): Rich Kron Terms Offered: Autumn Spring Summer Winter

Prerequisite(s): Completion of all candidacy requirements.

ASTR 49900. Graduate Research Seminar. 100 Units.

The instructor chooses a topic for the seminar and assigns papers that develop the topic from the earliest times to the most recent results. Students each present papers during the course, as assigned, and lead a discussion. The purpose is to give students practice in analyzing the literature and presenting to their peers, as well to assure exposure to a breadth in the topics in astronomy and astrophysics.

Instructor(s): Irina Zhuravleva, Erik Shirokoff, John Carlstrom Terms Offered: Autumn Spring Winter. Autumn Quarter instructor Irina Zhuravleva; Winter Quarter instructor Erik Shirokoff; Spring Quarter instructor John Carlstrom.

Prerequisite(s): Intended for doctoral students in the Department of Astronomy and Astrophysics.

ASTR 50000. Theory and Practice of Science Education. 300.00 Units.

In this seminar, students examine their work as teaching assistants through activities that include self-reflection; investigating relevant educational literature; and engaging in in-depth discussions about their own teaching and learning. Readings and discussion topics include questioning techniques, learning theory, cooperative learning, growth mindset, metacognition, developing relationships with students, equity, and differentiation. Students will try out new ideas each week in their learning teams and report their results in class. In many cases, students provide guidance to one another regarding managing issues that typically arise in their learning teams. The seminar is intended for graduate students who are serving as teaching assistants for the first time, and is typically taken in the same quarter in which the student begins teaching.

Instructor(s): Brent Barker Terms Offered: Autumn Spring Winter. This course will be offered for 0 credit hours in the 2019-2020 academic year.

Prerequisite(s): Undergraduates serving as course assistants may enroll with instructor consent.

Note(s): Graduate students in Astronomy and Astrophysics and Geophysical Sciences enroll in ASTR 50000 the first quarter in which they will teach.

Equivalent Course(s): GEOS 50000

ASTR 70000. Advanced Study: Astronomy & Astrophysics. 300.00 Units.

Advanced Study: Astronomy & Astrophysics



GRADUATE PROGRAM IN BIOPHYSICAL SCIENCES

Chair

- Tobin R. Sosnick

WEBSITE ([HTTP://BIOPHYSICS.UCHICAGO.EDU](http://biophysics.uchicago.edu))

The Graduate Program in Biophysical Sciences is designed to transcend traditional departmental boundaries for the purpose of training scientists who will excel at addressing biological problems using quantitative and physical approaches. The program, which grants a Ph.D. degree from both the Biological and Physical Science Divisions, serves the needs of students who have strong backgrounds in the physical sciences and are intrigued by the interface of the physical, biological and computational sciences. Dual mentorship is a fundamental component of the program. Each student chooses a pair of dissertation advisors from across our diverse faculty and fully participates in both of these research groups.

The participating faculty in the program are drawn from The Physical and The Biological Sciences Divisions, and Argonne National Laboratory and hold appointments in:

DEPARTMENTS & COMMITTEES

- Ben May Dept. for Cancer Research
- Biochemistry & Molecular Biology
- Cancer Biology
- Cell & Molecular Biology
- Cell Physiology
- Chemistry
- Computational Neuroscience
- Computer Sciences
- Developmental Biology
- Genetics, Genomics & Systems Biology
- Immunology
- Mathematics
- Microbiology
- Neurobiology
- Pathology
- Pediatrics
- Physics

INSTITUTES & CENTERS

- Inst. for Biophysical Dynamics
- Inst. for Genomics & Systems Biology
- James Franck Institute
- Center for Adv. Radiation Sources
- Materials Research Science & Engineering Center
- Office of Shared Research Facilities
- Institute for Molecular Engineering

CURRICULUM

The curriculum assumes that entering students are well-grounded in the physical sciences. During the first year, students are expected to take one class per quarter from both the Biological Sciences Division and the Physical Sciences Division (6 courses total). The Biological Organization Series consists of courses chosen to rapidly teach the fundamental biology necessary to enter a laboratory and begin serious interdisciplinary research. To build upon students' strengths in the physical sciences, the first year includes three courses chosen from a list of graduate courses offered in Chemistry or Physics. The curriculum can be modified to fit the strengths and weaknesses in a student's background.

Students undertake a series of laboratory rotations as part of the process of identifying a dissertation topic. These rotations are usually performed during the Winter and Spring Quarters during the first academic year.

INTERDISCIPLINARY PRACTICAL TRAINING

One of the unique advantages of the program is the 3 quarter laboratory course: From Production to Measurement and Analysis. In this intense, 16 hour a week course students deeply explore a series of important current instruments and techniques while carrying out the systematic characterization of several genes and their

expressed proteins. The genes are chosen from the long list of "unknown ORFs" - open reading frames that have been predicted by genome sequencing projects, but have never been examined further.

The laboratory course is managed by a full-time course director who works closely with the students to provide experimental and intellectual continuity. The laboratory course covers (1) sample preparation and high throughput selection methods (e.g. engineering, expression, synthesis, and labeling of proteins and nucleic acids) and high throughput selection methods (phage display, in vitro selection); (2) measurement (spectroscopy and imaging including single molecule methods, NMR, x-ray diffraction, and mass spectrometry, etc.); and (3) computational approaches (extracting information from large data sets, bioinformatics, simulation and modeling). Although it is impossible to cover all biophysical methods, the process of mastering a subset of the important techniques gives students the confidence and foundation to build in any direction.

The first section of this course is the four-week Biological Research Immersion, which starts in late August and ends before the start of Fall Quarter. The course continues through the Autumn and Winter Quarters.

The program in Biophysical Sciences is an inherently collaborative training program, and the foundation of collaboration is the ability to coherently express complex ideas. As part of the laboratory course, students are expected to give frequent presentations, both oral and written: Analysis of recent papers, background preparation before research seminars, overviews of upcoming experimental techniques, experimental proposals, and presentations of results. As a group, students also participate in two large projects during the year - building an advanced optical instrument from basic components, and writing a software package to simulate a biological process.

DUAL MENTORSHIP

In order to truly bridge the expertise and approach of two scientific fields it is necessary to fully participate in both. The research program each professor maintains is a vibrant and dedicated research group whose members share in the daily successes and frustrations of their related questions. It is this shared intellectual exertion that moves a subject forward, and it is this environment that most efficiently teaches the deepest understanding. In our experience, this dual mentorship creates an unparalleled learning structure and will lead to the development of unimagined science.

For a list of trainers and their affiliations, details about admissions, and current information about this new and innovative program, see <http://biophysics.uchicago.edu/>

BIOPHYSICAL SCIENCES COURSES

BPBS 31000. Biophysics of Biomolecules. 100 Units.

This course covers the properties of proteins, RNA, and DNA, as well as their interactions. We emphasize the interplay between structure, thermodynamics, folding, and function at the molecular level. Topics include cooperativity, linked equilibrium, hydrogen exchange, electrostatics, diffusion, and binding.
Equivalent Course(s): BCMB 32200, BIOS 21328

BPBS 32500. Biophysical Discussions. 50 Units.

The format of this seminar series is a discussion led by pairs of faculty, one from the PSD and one from the BSD, who present their often divergent and usually provocative views on a single topic. This series is an opportunity for the University community to come together to explore current challenges at the interface of the biological and physical sciences. First year students in the Biophysical Sciences Graduate Program enroll in this course for credit.

Instructor(s): A. Hammond
Terms Offered: Autumn

BPBS 33000. Ethical tools for research and mentoring. 50 Units.

Ethical considerations of research for advanced graduate students in the Biophysical Sciences graduate program.

BPBS 35001. Synthesis and Modification. 200 Units.

This course is 20 hours per week of intensive training in research in the biological sciences, intended for first year students in the Biophysical Sciences Program who typically have majored in one of the physical sciences and want to pursue a PhD project at the interface between the physical and biological sciences. The course continues through Winter quarter.

Instructor(s): A. Hammond
Terms Offered: Autumn, Winter

Note(s): Open to first year BPBS students only

BPBS 35002. Synthesis and Modification. 200 Units.

BPBS 39800. Topics: Research in Biophysical Sciences. 300.00 Units.

Laboratory Rotations

BPBS 39900. Introduction to Research: BPBS. 300.00 Units.

Qualifying Examination Preparation

BPBS 40100. Research in Biophysical Sciences. 300.00 Units.

PhD Thesis Research

BPHS 40500. Research Presentations. 50 Units.**BPHS 47300. Genomics and Systems Biology. 100 Units.**

This lecture course explores technologies for high-throughput collection of genomic-scale data, including sequencing, genotyping, gene expression profiling, and assays of copy number variation, protein expression and protein-protein interaction. In addition, the course will cover study design and statistic analysis of large data sets, as well as how data from different sources can be used to understand regulatory networks, i.e., systems. Statistical tools that will be introduced include linear models, likelihood-based inference, supervised and unsupervised learning techniques, methods for assessing quality of data, hidden Markov models, and controlling for false discovery rates in large data sets. Readings will be drawn from the primary literature. Evaluation will be based primarily on problem sets.

Instructor(s): Y. Gilad Terms Offered: Spring

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence including BIOS 20187 or BIOS 20235 and STAT 23400 or BIOS 26210 and BIOS 26211

Equivalent Course(s): CABI 47300, HGEN 47300, BIOS 28407, IMMU 47300

BPHS 70000. Advanced Study: Biophysical Sciences. 300.00 Units.

Advanced Study: Biophysical Sciences



DEPARTMENT OF CHEMISTRY

Chair

- Andrei Tokmakoff

Professors

- Laurie Jeanne Butler
- Aaron Dinner
- Guangbin Dong
- Gregory Engel
- Giulia Galli, Institute for Molecular Engineering
- Philippe M. Guyot Sionnest
- Chuan He
- Michael D. Hopkins
- Richard F. Jordan
- Stephen Kent, Biochemistry & Molecular Biology
- Sergey Kozmin
- Yamuna Krishnan
- Ka Yee Christina Lee
- Wenbin Lin
- David Mazziotti
- Jiwoong Park
- Joseph Piccirilli, Biochemistry & Molecular Biology
- Viresh Rawal
- Benoit Roux, Biochemistry & Molecular Biology
- Stuart Rowan, Institute for Molecular Engineering
- Norbert F. Scherer
- Steven J. Sibener
- James Skinner, Institute for Molecular Engineering
- Scott Snyder
- Dmitri Talapin
- Andrei Tokmakoff
- Gregory Voth
- Luping Yu

Associate Professors

- Bozhi Tian

Assistant Professors

- John Anderson
- Bryan Dickinson
- Sarah King
- Raymond Moellering
- Suriyanarayanan Vaikuntanathan

Emeritus Faculty

- R. Stephen Berry
- Philip E. Eaton
- Karl Freed
- Robert Haselkorn, MGCB
- Richard F. Jordan
- Donald H. Levy
- James R. Norris, Jr.
- Takeshi Oka

- Stuart A. Rice
- Hisashi Yamamoto

The Ph.D. program in the Department of Chemistry offers wide opportunity and unusual flexibility for advanced study and research, and is designed to encourage individuality, independence, and excellence in students. Most students select their research advisor by winter quarter of their first year and are engaged in research by the spring quarter. The department has neither a system of cumulative examinations nor a written major examination. There are relatively few course requirements and great flexibility as to which courses may be taken.

In the Division of the Physical Sciences barriers between departments are low. Students in the Department of Chemistry often take courses in other departments and can even earn the degree in chemistry for research that has been done under the supervision of a member of another department. Students are encouraged to fashion special programs of study under the guidance of the faculty.

APPLICATION

A completed application will include undergraduate transcripts, three letters of recommendation, and the results of the GRE examination (to include the advanced test in chemistry). Foreign applicants must also submit the results of the TOEFL or IELTS.

Students are normally admitted beginning with the autumn quarter of each year. The sequential nature of some of our courses makes this the best time to begin graduate studies. Although applications may be considered at any time at the discretion of the admissions committee, students are strongly encouraged to complete their applications by December 15th. The department has no admissions quota and in recent years the entering class has numbered between 38 and 55.

A well defined Master of Science (S.M.) program of appropriate rigor is maintained, but the Department of Chemistry does not offer financial support to students whose degree goal is the master's degree. This degree is neither a prerequisite for, nor a forerunner of, the Ph.D. degree, although it may be acquired along the way if a student so desires.

The Department of Chemistry participates actively in the Medical Scientist Training Program (MSTP) administered by the Pritzker School of Medicine at the University of Chicago. MSTP is a structured six year program leading to both the M.D. degree and the Ph.D. in chemistry. Full tuition and a stipend are awarded for the six year period. MSTP is funded by the National Institute of General Medical Sciences and is open only to U.S. citizens.

FINANCIAL SUPPORT

All students admitted to the Ph.D. program are offered financial support. Generally this takes the form of a first year teaching assistantship which provides a complete merit tuition scholarship and pays a competitive monthly stipend. Teaching assistants are usually assigned to one of the undergraduate laboratory courses. Duties involve supervising one class section (13-18 students) for one afternoon per week, holding a discussion session and office hours, and assisting with grading. The total time required is about fifteen hours per week.

By the end of the third quarter students have usually selected their research supervisor. An appointment as a research assistant (stipend plus tuition) normally continues throughout the period of research.

There are several special supplemental fellowships and scholarships offered by the department and the University. All students seeking admission are automatically considered in the competition for these awards. No separate application is required. Students are urged to compete for the many national and other external fellowships available.

ADVANCED DEGREES

The department administers basic examinations in the fields of inorganic, organic, and physical chemistry in the autumn, winter, and spring quarters. Graduate students are expected to take these examinations upon entering the department. Deficiencies evidenced by these examinations must be remedied and the examinations passed prior to the end of the third quarter of residence (not counting summer quarter).

In the first year, students must satisfactorily complete nine courses. At least six of these must be 30000 level courses from the offerings of the Department of Chemistry or of related departments in the Divisions of the Physical and the Biological Sciences, and of these six courses, at least two shall be in different areas of chemistry, e.g., inorganic, organic, or physical chemistry. For this purpose, inorganic chemistry courses are defined as Chemistry 30100- 31100, organic chemistry courses as Chemistry 32100- 33400, and physical chemistry courses as Chemistry 36100-39100. Grades of C or better are expected. The remaining three courses may include Chemistry 35000 and/or 40000 level chemistry research courses; however, one may not register for these courses during the autumn quarter. An advisor assists students in formulating programs of study that will best satisfy personal needs and departmental requirements. Courses taken outside the department to satisfy the first year requirements must be approved by the advisor.

Students who have completed all courses with grades of C or better (P in research courses) may be recommended for the S.M. degree; these students may, at the discretion of a faculty member, be required to submit a paper on their work in CHEM 35000 or a 40000 level research course.

At the end of the spring quarter in the first year, the faculty review the student's overall record. Course performance is a major part of this review; a B average or better in all 30000 level courses (excluding CHEM 35000) is expected. At this time the department will advise students whether they are qualified to continue studies and to prepare for the Ph.D. candidacy examination described below. A student seeking admission to Ph.D. candidacy must take the candidacy examination before the end of his or her fifth quarter in residence (normally October for this purpose summer quarter is counted as a quarter in residence). This examination is based on the student's written research prospectus and on the discussion of scientific papers selected by the examining committee. The student presents the research prospectus to the committee, and must be prepared to discuss the relevant chemical literature, progress to date, plans for future work, and the relationship of the research to other chemical problems. The student is expected to conduct a critical analysis of the scientific papers selected by the committee.

The faculty review the recommendations of the candidacy examining committee and, after consideration of the student's academic record, vote on whether or not to recommend that the student be admitted to candidacy. All candidates for the Ph.D. degree are required to participate in some form of teaching. Normally this involves serving as a teaching assistant for three quarters.

The Ph.D. degree is granted upon satisfactory completion of scholarly research work, presented in a written thesis, discussed in a public seminar, and defended orally before a faculty committee.

Students should especially note the following:

- It is the responsibility of the individual research sponsor to monitor the progress of a student's research. Unsatisfactory progress may result in termination of financial support and/or dismissal from the Ph.D. program.
- The department will recommend formal admission to candidacy as soon as the student has:
 - Satisfied the basic examination requirement
 - Satisfied the course requirements
 - Passed the candidacy examination
 - Demonstrated satisfactory progress in research and teaching
- Students should consider satisfying any or all course requirements by taking proficiency examinations. Application to take a proficiency examination should be made directly to the person who will be teaching the particular course. The examinations will be administered during the first week of the quarter in which the course is offered. No stigma is attached to failing a proficiency examination.

CHEMISTRY COURSES

CHEM 30100. Advanced Inorganic Chemistry. 100 Units.

Group theory and its applications in inorganic chemistry are developed. These concepts are used in surveying the chemistry of inorganic compounds from the standpoint of quantum chemistry, chemical bonding principles, and the relationship between structure and reactivity.

Instructor(s): W. Lin Terms Offered: Autumn

Prerequisite(s): CHEM 20100 and CHEM 26100

CHEM 30200. Synthesis and Physical Methods in Inorganic Chemistry. 100 Units.

This course covers theoretical and practical aspects of important physical methods for the characterization of inorganic molecules. Topics may include NMR, IR, RAMAN, EPR, and electronic and photoelectron spectroscopy; electrochemical methods; and single-crystal X-ray diffraction.

Instructor(s): W. Lin Terms Offered: Winter

Prerequisite(s): CHEM 30100

CHEM 30400. Organometallic Chemistry. 100 Units.

This course covers preparation and properties of organometallic compounds (notably those of the transition elements, their reactions, and the concepts of homogeneous catalysis).

Instructor(s): J. Lewis Terms Offered: Autumn

Prerequisite(s): CHEM 20100

CHEM 30500. Nanoscale Materials. 100 Units.

This course provides an overview of nanoscale phenomena in metals, semiconductors, and magnetic materials (e.g., the fundamental aspects of quantum confinement in semiconductors and metals, superparamagnetism in nanoscale magnets, electronic properties of nanowires and carbon nanotubes, surface plasmon resonances in nanomaterials, photonic crystals). Special attention is paid to preparative aspects of nanomaterials, colloidal and gas-phase syntheses of nanoparticles, nanowires, and nanotubes. Engineered nanomaterials and their assemblies are considered promising candidates for a variety of applications, from solar cells, electronic circuits, light-emitting devices, and data storage to catalysts, biological tags, cancer treatments, and drug delivery. The course covers state-of-the-art in these and other areas. Finally, the course provides an overview of the experimental techniques used for structural characterization of inorganic nanomaterials (e.g., electron microscopy, X-ray diffractometry, small-angle X-ray scattering, STM, AFM, Raman spectroscopy).

Instructor(s): B. Tian

Prerequisite(s): CHEM 20200 and 26300, or consent of instructor

CHEM 30600. Chemistry Of The Elements and Materials. 100 Units.

This course surveys the descriptive chemistries of the main-group elements and the transition metals from a synthetic perspective, and reaction chemistry of inorganic molecules is systematically developed.

Instructor(s): J. Anderson Terms Offered: Winter

Prerequisite(s): CHEM 20100

CHEM 30900. Bioinorganic Chemistry. 100 Units.

This course covers various roles of metals in biology. Topics include coordination chemistry of bioinorganic units, substrate binding and activation, electron-transfer proteins, atom and group transfer chemistry, metal homeostasis, ion channels, metals in medicine, and model systems.

Instructor(s): C. He Terms Offered: Spring

Prerequisite(s): CHEM 20200 and 22200/23200

CHEM 32100. Physical Organic Chemistry I. 100 Units.

This course focuses on the quantitative aspects of structure and reactivity, molecular orbital theory, and the insight it provides into structures and properties of molecules, stereochemistry, thermochemistry, kinetics, substituent and isotope effects, and pericyclic reactions.

Instructor(s): L. Yu Terms Offered: Autumn

Prerequisite(s): CHEM 22200/23200 and 26200, or consent of instructor

CHEM 32200. Organic Synthesis and Structure. 100 Units.

This course considers the mechanisms, applicability, and limitations of the major reactions in organic chemistry, as well as of stereochemical control in synthesis.

Instructor(s): G. Dong Terms Offered: Autumn

Prerequisite(s): CHEM 22200/23200 or consent of instructor

CHEM 32300. Strategies and Tactics of Organic Synthesis. 100 Units.

This course discusses the important classes for organic transformation. Topics include carbon-carbon bond formation; oxidation; and reduction using a metal, non-metal, or acid-base catalyst. We also cover design of the reagents and the scope and limitation of the processes.

Instructor(s): S. Snyder Terms Offered: Winter

Prerequisite(s): CHEM 22200/23200 or consent of instructor

CHEM 32400. Physical Organic Chemistry II. 100 Units.

Topics covered in this course include the mechanisms and fundamental theories of free radicals and the related free radical reactions, biradical and carbene chemistry, and pericyclic and photochemical reactions.

Instructor(s): Staff

Prerequisite(s): CHEM 32100

CHEM 32500. Bioorganic Chemistry. 100 Units.

A goal of this course is to relate chemical phenomena with biological activities. We cover two main areas: (1) chemical modifications of biological macromolecules and their potential effects; and (2) the application of spectroscopic methods to elucidate the structure and dynamics of biologically relevant molecules.

Equivalent Course(s): BCMB 32500

CHEM 33000. Complex Chemical Systems. 100 Units.

This course describes chemical systems in which nonlinear kinetics lead to unexpected (emergent) behavior of the system. Autocatalytic and spatiotemporal pattern forming systems are covered, and their roles in the development and function of living systems are discussed.

Instructor(s): Staff

Prerequisite(s): CHEM 22200/23200 and MATH 20100, or consent of instructor

CHEM 33100. New Synthetic Reactions and Catalysts. 100 Units.

This course presents recent highlights of new synthetic reactions and catalysts for efficient organic synthesis. Mechanistic details and future possibilities are discussed.

Instructor(s): Staff

Prerequisite(s): CHEM 23300

CHEM 33200-33300. Chemical Biology I-II.

This course emphasizes the concepts of physical organic chemistry (e.g., mechanism, molecular orbital theory, thermodynamics, kinetics) in a survey of modern research topics in chemical biology. Topics, which are taken from recent literature, include the roles of proteins in signal transduction pathways, the biosynthesis of natural products, strategies to engineer cells with novel functions, the role of spatial and temporal inhomogeneities in cell function, and organic synthesis and protein engineering for the development of molecular tools to characterize cellular activities.

CHEM 33200. Chemical Biology I. 100 Units.

This course focuses on the applications of fundamental chemical principles and methods to measure, perturb, and control biological systems, through a critical analysis of both classic and recent literature.

Instructor(s): B. Dickinson Terms Offered: Autumn

Prerequisite(s): Basic knowledge of organic chemistry and biochemistry

CHEM 33300. Chemical Biology II. 100 Units.

Instructor(s): R. Moellering Terms Offered: Winter

Prerequisite(s): Basic knowledge of organic chemistry and biochemistry

CHEM 33300. Chemical Biology II. 100 Units.

Instructor(s): R. Moellering Terms Offered: Winter

Prerequisite(s): Basic knowledge of organic chemistry and biochemistry

CHEM 33500. Chemistry of Enzyme Catalysis. 100 Units.

The course will cover a series of topics illustrating and exploring aspects of the chemistry of enzyme catalysis, and will use case studies based on the primary scientific literature—both classic and current papers. For each class, there will be primary scientific papers assigned that the student will be expected to have studied in depth prior to class, including "reading around" on the same and related topics; suggestions for supplementary reading will be given. Classes will be conducted as discussion sessions; guided by the Instructor—all students will be expected to be prepared to answer questions from the instructor, and to take active part in class discussions. Participation in class will count for a portion of the grade for each student.

Instructor(s): Jared Lewis Terms Offered: Winter

Prerequisite(s): CHEM 23300

CHEM 33600. Biological Chemistry of Materials: Principles and Applications. 100 Units.

This course will focus on principles of bioconjugation techniques; preparation of immobilized-enzymes/proteins: adsorption, occlusion, cross-linking and covalent binding. Applications of cofactor-dependent enzymes: building of enzymatic electrodes and biofuel cells. Development of immunosensors based on ELISA, electrochemistry, optics, carbon nanotubes and piezoelectric methods. Principles and design of DNA/RNA based sensors (Ribozymes, SELEX, Aptamers, DNazymes, Molecular Beacons). Amplification methods for nucleic acids detection in test tube and in cells. Preparation and characterization of nanoparticles in nucleic acids and proteins sensing processes.

Instructor(s): Yossi Weizmann Terms Offered: Winter

Prerequisite(s): CHEM 23300 or consent of instructor

CHEM 33700. RNA Structure, Function, and Biology. 100 Units.

Students will learn principles of RNA structure and function, RNA catalysis, and RNA molecular cell biology as they relate to the field of RNA metabolism. In recent years it has become apparent that much of an organisms genome is transcribed, yielding a far more expansive collection of RNA molecules than previously thought: many of these RNAs are classic messenger RNAs that code for proteins but many serve functions other than protein coding (noncoding RNAs). These RNAs are processed, modified, and usually interact with RNA binding proteins (RBPs) to form ribonucleoprotein (RNP) complexes. We will consider emerging themes in noncoding RNA biology and investigate methods for interrogating their cellular structure and function.

Instructor(s): Prof. Joseph Piccirilli Terms Offered: Spring

CHEM 33800. Organotransition Metal Chemistry. 100 Units.

Transition-metal catalysis becomes one of the most important tools in organic synthesis. In this course, we will start to review the fundamental knowledge in organo-transition metal chemistry, such as bonding, coordination chemistry of metal-ligand complexes, in detail. The main focus will be the basic elementary reactions of organometallic complexes, such as oxidative addition, migratory insertion, reductive elimination etc. Lastly, we will study the subject of catalysis, and examine various catalytic transformations through the course.

CHEM 33900. Discovery and Translation of Molecular Therapeutics. 100 Units.

The aim of this course is to broadly expose students to emerging classes of molecular therapeutics and diagnostics with a focus on the chemistry and molecular engineering underlying their discovery, development and translation into use by society. This material will be presented through the lens of academic, industrial and clinical experts, which will collectively expose students to the diverse disciplines that come together in the creation of new medicines and diagnostics.

Instructor(s): Raymond Moellering, Bryan Dickinson Terms Offered: Spring

CHEM 35000. Intro To Research: Chemistry. 300.00 Units.

For course description contact Chemistry.

CHEM 36100. Wave Mechanics and Spectroscopy. 100 Units.

This course presents the introductory concepts, general principles, and applications of wave mechanics to spectroscopy.

Instructor(s): T. Berkelbach Terms Offered: Autumn

Prerequisite(s): CHEM 26300

CHEM 36200. Quantum Mechanics. 100 Units.

This course builds upon the concepts introduced in CHEM 36100 with greater detail provided for the role of quantum mechanics in chemical physics.

Instructor(s): D. Mazziotti Terms Offered: Winter

Prerequisite(s): CHEM 36100

CHEM 36300. Statistical Thermodynamics. 100 Units.

This course covers the thermodynamics and introductory statistical mechanics of systems at equilibrium.

Instructor(s): S. Vaikuntanathan Terms Offered: Autumn

Prerequisite(s): CHEM 26100-26200

CHEM 36400. Advanced Statistical Mechanics. 100 Units.

Topics covered in this course may include statistics of quantum mechanical systems, weakly and strongly interacting classical systems, phase transitions and critical phenomena, systems out of equilibrium, and polymers.

Instructor(s): G. Voth Terms Offered: Winter

Prerequisite(s): CHEM 36300 or equivalent

CHEM 36500. Chemical Dynamics. 100 Units.

This course develops a molecular-level description of chemical kinetics, reaction dynamics, and energy transfer in both gases and liquids. Topics include potential energy surfaces, collision dynamics and scattering theory, reaction rate theory, collisional and radiationless energy transfer, molecule-surface interactions, Brownian motion, time correlation functions, and computer simulations.

Instructor(s): N. Scherer Terms Offered: Spring

Prerequisite(s): CHEM 36100 required; 36300 recommended

CHEM 36700. Experimental Phy Chem Spec. 100 Units.**CHEM 36800. Computational Chemistry and Biology. 100 Units.**

The theme for this course is the identification of scientific goals that computation can assist in achieving. We examine problems such as understanding the electronic structure and bonding in molecules, interpreting the structure and thermodynamic properties of liquids, protein folding, enzyme catalysis, and bioinformatics. The lectures deal with aspects of numerical analysis and with the theoretical background relevant to calculations of the geometric and electronic structure of molecules, molecular mechanics, molecular dynamics, and Monte Carlo simulations. The lab consists of computational problems drawn from a broad range of chemical and biological interests.

Instructor(s): G. Voth Terms Offered: Spring

Prerequisite(s): CHEM 26100-26200, or PHYS 19700 and 23400

Equivalent Course(s): CHEM 26800

CHEM 37100. Advanced Spectroscopies. 100 Units.

This linear and nonlinear spectroscopy course includes notions on matter-radiation interaction, absorption, scattering, and oscillator strength. They are applied mostly with the optical range, but we briefly touch upon microwave (NMR, ESR) and X-rays at the extreme. We cover nonlinear optical processes such as coherent Raman, harmonic, and sum-frequency; induced transparency; slow light; and X-ray generation. We also cover coherent and incoherent dynamical probes, such as pump-probe, echos, and two-dimensional spectroscopy.

Instructor(s): P. Guyot-Sionnest Terms Offered: Winter

CHEM 37300. Advanced Special Topics in Theory and Computation. 100 Units.

This course introduces topics in theoretical and computational chemistry beyond those in the traditional graduate physical chemistry sequence. Specific topics will vary from year to year based on the interests of the instructor and students. Representative topics are diagrammatic methods, field theories, renormalization, nonequilibrium statistical mechanics, and quantum dynamics.

Instructor(s): Aaron Dinner Terms Offered: Spring

CHEM 38700. Biophysical Chemistry. 100 Units.

This course develops a physicochemical description of biological systems. Topics include macromolecules, fluid-phase lipid-bilayer structures in aqueous solution, biomembrane mechanics, control of biomolecular assembly, and computer simulations of biomolecular systems.

Instructor(s): A. Tokmakoff Terms Offered: Spring

Prerequisite(s): CHEM 23300, CHEM 26200.

CHEM 39000. Materials Chemistry I. 100 Units.

This course is an introduction to modern materials chemistry. It covers basic chemistry and physics of condensed systems, such as solids, polymers, and nanomaterials. The electronic structure of metals, semiconductors and magnetically ordered phases will be discussed. We will review optical and electronic properties of different classes of materials using examples of hard and soft condensed matter systems and drawing structure-property relationships for conventional solids, polymers, and nanomaterials. Finally, the course will cover the fundamentals of surface science and material synthesis, applying modern understanding of nucleation and growth phenomena.

Instructor(s): Prof. Dmitri Talapin Terms Offered: Autumn

Prerequisite(s): CHEM 26100, CHEM 26200, and CHEM 26300, or equivalent

CHEM 39100. Materials Chemistry II. 100 Units.

This course will focus on the physical properties and kinetics of materials. The chemically-enabled properties of many different materials will be described, including linear and nonlinear elasticity, piezoelectricity, magnetic phenomena, diffusion and other transport properties, nonlinear optical properties, linear and nonlinear acoustic wave phenomena, and biological impacts. Selected applications associated with these properties will be included. Additionally, the course will discuss complex motion of dislocations and interfaces, morphological evolution, and phase transformations in materials synthesis.

Instructor(s): Prof. Bozhi Tian Terms Offered: Spring

Prerequisite(s): CHEM 26100 and CHEM 26300 or equivalent

CHEM 39200. Polymers. 100 Units.

The course covers the following advanced topics in polymer science, by a combination of lectures and student presentations: 1) Electrical-conductivity, mobility, applications in various fields 2) Biological polymers-biocompatibility, degradable drug delivery, (Protein, DNA and RNA delivery), tissue engineering 3) Liquid crystal polymers 4) Polymers for catalytic function 5) Ferroelectric/ferromagnetic polymers 6) Optical polymers (linear, nonlinear optical polymers) 7) Block copolymers for nanostructures 8) Supramolecular polymers-polymers with self-healing properties.

Instructor(s): Luping Yu

Prerequisite(s): CHEM 22000-22100-22200 and CHEM 26100

CHEM 39300. Electronic and Quantum Materials for Technology. 100 Units.

Chem 39300 is a one-quarter introductory course on the science and engineering of electronic and quantum materials. The intended audience is upper-level undergraduate students and first-year graduate students in Molecular Engineering, Chemistry and Physics. We will learn the basics of electrical and optical properties of electronic materials, including semiconductor, metal, and insulators starting from a simple band picture and discuss how these materials enable modern electronic and optoelectronic devices and circuitry. We will also explore the modern synthesis techniques for these materials and the effects of reduced dimensions and emergent quantum properties.

Instructor(s): Jiwoong Park Terms Offered: Spring

CHEM 40000. Rsch: Related Depts/Institutes. 300.00 Units.

Doctoral research on an original project in Related Depts/Institutes under the supervision of the professor.

CHEM 40100. Research: Physical Chemistry. 300.00 Units.

Doctoral research on an original project in Physical Chemistry under the supervision of the professor.

CHEM 40200. Research: Physical Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 40300. Research: Inorganic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 40400. Rsch: Org/Phys/Polymer Chem. 300.00 Units.

Doctoral research on an original project in Org/Phys/Polymer Chemistry under the supervision of the professor.

CHEM 40500. Rsch: Laser/Surface/Phys Chem. 300.00 Units.

Doctoral research on an original project in Laser/Surface/Physical Chemistry under the supervision of the professor.

CHEM 40600. Research: Bioorganic Chemistry. 300.00 Units.

Doctoral research on an original project in Bioorganic Chemistry under the supervision of the professor.

CHEM 40700. Research: Inorganic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 40800. Research: Organic Chemistry. 300.00 Units.

Doctoral research on an original project in Organic Chemistry under the supervision of the professor.

CHEM 40900. Research: Organic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

- CHEM 41000. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 41100. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 41200. Research: Physical Chemistry. 300.00 Units.**
Doctoral research on an original project in Physical Chemistry under the supervision of the professor.
- CHEM 41300. Research: Inorganic Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 41400. Research: Org/Biological Chem. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 41500. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 41600. Research: Biophysical Chem. 300.00 Units.**
Doctoral research on an original project in Biophysical Chemistry under the supervision of professor.
- CHEM 41700. Research: Geochemistry. 300.00 Units.**
Doctoral research on an original project in Geochemistry under the supervision of the professor.
- CHEM 41800. Rsch: Org/Phys-Org Chemistry. 300.00 Units.**
Doctoral research on an original project in Org/Phys-Org Chemistry under the supervision of the professor.
- CHEM 41900. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42000. Research: Physical Chemistry. 300.00 Units.**
Doctoral research on an original project in Physical Chemistry under the supervision of the professor.
- CHEM 42100. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42200. Research: Inorganic Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42300. Research: Organic Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42400. Research: Org/Biological Chem. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42500. Research: Organic Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42600. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42700. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42800. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 42900. Research: Organic Chemistry. 300.00 Units.**
- CHEM 43000. Research: Inorganic Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 43100. Research: Inorganic Chemistry. 300.00 Units.**
Doctoral research on an original project in Inorganic Chemistry under the supervision of the professor.
- CHEM 43200. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 43300. Research: Organic Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 43400. Research: Organic Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 43500. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD
- CHEM 43600. Research: Physical Chemistry. 300.00 Units.**
Readings and Research for working on their PhD

CHEM 43800. Research: Physical Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 43900. Research: Org/Biotheoretical Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44000. Research: Organic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44100. Research: Organic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44200. Research: Organic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44300. Research: Physical Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44400. Research: Organic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44500. Research: Inorganic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44600. Research: Physical Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44700. Research: Physical Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44800. Research: Organic Chemistry. 300.00 Units.

Readings and Research for working on their PhD

CHEM 44900. Polymer Chemistry. 300.00 Units.

Laboratory Research on an original project in Polymer Chemistry for Ph.D. dissertation.

CHEM 45000. Research: Physical Chemistry. 300.00 Units.**CHEM 45100. Research: Physical Chemistry. 300.00 Units.**

Laboratory research in physical chemistry.

Instructor(s): Sarah King Terms Offered: Autumn Spring Summer Winter. Start in 2018 - 2019 and continue every year/quarter after that

CHEM 45200. Research: Organic Chemistry. 300.00 Units.

Conduct research towards a dissertation research project in Organic Chemistry.

Instructor(s): Prof. Mark Levin Terms Offered: Autumn Spring Summer Winter

CHEM 50000-50001-50002. Advanced Training for Teachers and Researchers in Chemistry I-II-III.

This sequence will extend the traditional two-week departmental TA training into a full year, covering both the materials that are critical to becoming an excellent TA and the skills to produce well-rounded PhD candidates.

At the end of this sequence, students are expected to develop an enhanced understanding and talent of critical thinking, an enriched knowledge base that is critical in solving real-world problems, an improved ability in the consideration and use of innovative pedagogical tools, the ability to transition into independent research, and effective skills in preparing high-quality written reports and oral presentations, as well as to begin thinking about career development skills.

CHEM 50000. Advanced Training for Teachers and Researchers in Chemistry I. 100 Units.

No description available.

Instructor(s): Dr. Vera Dragisich Terms Offered: Autumn

CHEM 50001. Advanced Training for Teachers and Researchers in Chemistry II. 300.00 Units.

No description available.

Instructor(s): Dr. Vera Dragisich Terms Offered: Winter

CHEM 50002. Advanced Training for Teachers and Researchers in Chemistry III. 300.00 Units.

No description available.

Terms Offered: Spring

CHEM 50001. Advanced Training for Teachers and Researchers in Chemistry II. 300.00 Units.

No description available.

Instructor(s): Dr. Vera Dragisich Terms Offered: Winter

CHEM 50002. Advanced Training for Teachers and Researchers in Chemistry III. 300.00 Units.

No description available.

Terms Offered: Spring

CHEM 50005. Chemistry External Research/Professional Development. 100 Units.

Internship for professional development, such as through My Choice program.

Instructor(s): Vera Dragisich Terms Offered: Spring. May be offered in other quarters as well, as necessary

CHEM 59200. Seminar on Experimental Design. 000 Units.**CHEM 70000. Advanced Study: Chemistry. 300.00 Units.**

Advanced Study: Chemistry



THE COMMITTEE ON COMPUTATIONAL AND APPLIED MATHEMATICS

Committee website: <https://www.stat.uchicago.edu/ccam/index.shtml>

Director

- Mary Silber (Statistics, CAMI)

Professors

- Yali Amit (Statistics and Computer Science)
- Mihai Anitescu (Statistics and Argonne, CAMI)
- Guillaume Bal (Statistics and Mathematics, CAMI)
- Fausto Cattaneo (Astronomy and Astrophysics)
- Jack Cowan (Mathematics and Neurology)
- Aaron Dinner (Chemistry and James Franck Institute)
- Todd Dupont (Computer Science, Mathematics, and James Franck Institute)
- Carlos Kenig (Mathematics)
- Gregory Lawler (Mathematics and Statistics)
- John Reinitz (Statistics and Ecology and Evolution, CAMI)
- Panagiotis (Takis) Souganidis (Mathematics)
- Michael Stein (Statistics)
- Matthew Stephens (Statistics and Human Genetics)
- Gregory Voth (Chemistry and James Franck Institute)
- Shmuel Weinberger (Mathematics)

Associate Professor

- Rina Foygel Barber (Statistics)
- Lek-Heng Lim (Statistics, CAMI)
- Nathan Srebro (TTIC and Computer Science)
- Jonathan Weare (Statistics and James Franck Institute, CAMI)

Assistant Professors

- Zheng (Tracy) Ke (Statistics)
- Risi Kondor (Statistics and Computer Science, CAMI)

THE PROGRAM

The use of computational, mathematical and statistical modeling in various areas of science has increased dramatically in recent years, triggered by massive increases in computing power and data acquisition. Mechanistic models for physical problems that reflect underlying physical laws are being combined with data-driven approaches in which statistical inference and optimization play key roles. These developments are transforming research agendas throughout statistics and applied mathematics, and are impacting a broad range of scientific disciplines.

A critical need now exists to train the next generation of computational and applied mathematicians to confront data-centric problems in the natural and social sciences. In response to these developments, the Committee on Computational and Applied Mathematics (CCAM) has been formed to provide graduate training in Computational and Applied Mathematics that reflects both the scientific demands and the unique strengths of the University of Chicago faculty across the Division of the Physical Sciences, including the recent hiring of several new faculty under a Computational and Applied Mathematics Initiative (CAMI).

ADMISSIONS

The program will admit a small number of exceptionally qualified students. Each student will be assigned to a member of the computational and applied mathematics committee to plan and approve a student's course of study until their thesis committee is formed. The executive committee monitors each student's progress through the program at quarterly meetings.

THESIS COMMITTEE

By the end of their second year, students will choose a thesis advisor from CCAM and two additional thesis committee members. A student may propose an advisor who is not a member of CCAM, with approval of the executive committee, in which case the additional members of the thesis committee will be from CCAM.

COURSE REQUIREMENTS

The course requirements of the Ph.D. in Computational and Applied Mathematics are fairly low, consistent with the goal of involving students in original research early in their graduate careers. Together with an assigned course advisor, students select classes from core areas and a diverse set of possible elective tracks involving mathematics, statistics, computer science, and applications. The CAM core requirements include 1-quarter courses in optimization, stochastic processes, machine learning, matrix computation, applied analysis and partial differential equations, typically completed in the first year of the program. Students are also expected to take at least one graduate level course in a scientific domain.

For more details on this new program, see <http://www.stat.uchicago.edu/ccam/program.shtml>



DEPARTMENT OF COMPUTER SCIENCE

Chair

- Michael Franklin

Professors

- Yali Amit
- Laszlo Babai
- Andrew Chien
- Frederic Chong
- Todd Dupont
- Ian Foster
- Michael Franklin
- John Goldsmith
- Robert Grossman
- Stuart A. Kurtz
- Ketan Mulmuley
- Alexander Razborov
- John Reppy
- Janos Simon
- Rick L. Stevens
- Rebecca Willett
- Ben Zhao
- Heather Zheng

Associate Professors

- David Cash
- Henry Hoffmann
- Gordon Kindlmann
- Risi Kondor
- Shan Lu
- Anne Rogers

Assistant Professors

- Ravi Chugh
- Andrew Drucker
- Aaron Elmore
- Haryadi Gunawi
- Junchen Jiang
- Sanjay Krishnan
- Yanjing Li
- Pedro Lopes
- Michael Maire
- Aaron Potechin
- Blase Eric Ur

Research Associate Professors

- Diana Franklin
- Rayid Ghani

Clinical faculty

- Andrew Binkowski (assistant clinical professor)
- Geraldine Brady (associate clinical professor)
- Amitabh Chaudhary (associate clinical professor)

- William Conner (assistant clinical professor)
- Lamont Samuels (assistant clinical professor)

Adjunct faculty

- Jeffrey Cohen (adjunct assistant professor)
- Mark Shacklette (adjunct professor)
- Andrew Siegel (adjunct professor)
- Michael Spertus (adjunct professor)

The Department of Computer Science is dedicated to advancing and improving the knowledge, understanding, and practice of computer science through basic research and education.

RESEARCH

We construe the field of computer science broadly to include the complementary concepts of computation, information, and communication. We employ modes of inquiry and creation from pure mathematics to experiment and observation to design and engineering. We investigate computation, information, and communication as inherently interesting phenomena; we also investigate the many ways in which computational concepts engage other topics: computational tools for science and scholarship, computational infrastructure for society.

There is an ongoing major thrust to expand the role of Computer Science and computation at the University, with considerable expansion of the faculty, and expanded support to explore new research areas. Accordingly, the descriptions below, a snapshot of our current active research, is likely to expand.

Current active research areas include computing systems, computer architecture, computer security and privacy, error-tolerant computing and error recovery in computing systems, databases and data intensive computing, theoretical computer science, discrete mathematics, quantum computing, programming languages, machine learning, computational linguistics, computer vision, cloud computing, sustainable computing, scientific computing and visualization, high performance computing, human-computer interaction, computer science education, and interdisciplinary research in computing in the physical, biological, and social sciences.

ARTIFICIAL INTELLIGENCE

Research spans the spectrum from foundational work in statistical machine learning to computer vision and computational linguistics. The AI group has strong ties to CAML, the University's Computational and Applied Mathematics Initiative.

COMPUTATIONAL MATHEMATICS

Our faculty and students study the foundations of simulation technology. This includes the development and mathematical analysis of numerical algorithms for approximating partial differential equations. We also study language and systems aspects of numerical computing. Parallel and high performance computing are an integral part of our efforts.

SYSTEMS

Our faculty advance principles and understanding of a broad range of areas, including systems and networking, programming languages and software engineering, software and hardware architecture, data-intensive computing and databases, graphics and visualization, computer security, human-computer interactions, and systems biology. Particular areas of focus include formal definition, design, and implementation of programming languages, data-intensive computing systems and algorithms, large scale distributed and collaborative systems, heterogeneous computer architectures, reliable computing systems, self-tuning systems, and emerging technologies.

THEORETICAL COMPUTER SCIENCE

We investigate the fundamental concepts underlying computation using and developing mathematical techniques, as well as topics in discrete mathematics. Our faculty specialize in complexity theory, algorithms, discrete mathematics, and combinatorics.

These efforts are enhanced by strong connections to the Center for Data and Applied Computing, an incubator for campus wide initiatives in Data Science, broadly construed, the James Frank Institute, which focuses on condensed matter physics; the Institute for Biophysical Dynamics, which provides a forum for studying questions that arise at the boundary between the biological and physical sciences; and the Institute for Molecular Engineering. In addition, we have collaborations with faculty in academic departments, including the geophysical sciences, linguistics, mathematics, physics, psychology, and statistics, and well as with the Division of Mathematics and Computer Science at Argonne National Laboratory (ANL), which is operated by the University of Chicago for the US Department of Energy. We also have almost seamless collaborations with the Toyota Technological Institute on campus, especially in the areas of Theoretical Computer Science and Machine Learning.

GRADUATE PROGRAMS

We offer two graduate curricula in computer science.

1. A graduate professional curriculum leading to the Master of Science (MS) degree, for students who wish to enter or advance themselves in computer science practice.
2. A graduate research curriculum leading to the PhD degree that prepares students to perform advanced basic research in computer science either in industry or academia. Teaching experience is available for students preparing for academic careers.

Acquire further information about our Masters Program in Computer Science (MPCS) through the MPCS website (<http://masters.cs.uchicago.edu>), by writing to our MPCS Admissions, Department of Computer Science, University of Chicago, 1100 East 58th Street, Chicago, IL 60637, or by telephoning 773.834.3388. You may also email any questions to our questions@cs.uchicago.edu email address.

Acquire further information about our PhD program through our PhD admissions website (<http://csphd.sites.uchicago.edu/page/admission-phd-program>), by writing to Admissions, Department of Computer Science, University of Chicago, 1100 East 58th Street, Chicago, IL 60637, or by telephoning 773.702.6011.

General information about our department is available from the departmental website (<https://computerscience.uchicago.edu>).

THE PHD PROGRAM

The department offers two PhD tracks: a standard track and a computational mathematics track.

The detailed requirements for the PhD degree and for the MS degree within the PhD program can be found by visiting the Department's web page (<https://computerscience.uchicago.edu>). Here is a brief summary:

To obtain an MS degree within the PhD program, students in the PhD program must fulfill the following requirements:

- Course requirements. Five core courses and four electives. The core courses include two in Theory, two in Systems, and one in Machine Learning. Please refer to the web page for details regarding the core courses.

A modified set of core courses applies to the computational mathematics track (see the website). The list of electives is frequently updated; we refer you to the web page.

Students must complete the course requirements by the end of their second year of study. To receive an MS degree within the PhD program, students must receive a grade of at least B in all the nine courses and have a GPA of at least 3.00 in the five core courses, and write a Master's paper and pass a Master's examination.

To obtain a PhD degree, students must meet enhanced MS requirements: they must do especially well in the five core courses with a 3.25 average. Details about the requirements can be found in the departmental web page. In addition, students should:

- Pass a Candidacy Exam
- Write and defend a Doctoral Thesis that contains significant original research in computer science.

TEACHING OPPORTUNITIES FOR STUDENTS IN THE PHD PROGRAM

The department takes its undergraduate teaching responsibilities very seriously, and offers supervised teaching opportunities, including lecturing, acting as teaching assistants, and working as lab assistants to its best graduate students.

COMPUTING FACILITIES

In addition to the general University computing facilities including the Research Computing Center (<https://rcc.uchicago.edu/resources>) and access to high performance computers at ANL, and our Computer Science Instructional Laboratory (which contains about 50 Macintosh computers and 40 desktops running Linux), the Ryerson Research Computing Service provides the faculty, students, and postdoctoral associates in computer science with computing resources. We have the flexibility to adapt quickly to new research needs.

The resources include: 24 hour 7 day interactive computing on a number of shared computing servers as well as individually assigned desktops. These servers and desktops run the Linux operating system and are interconnected via high speed Ethernet. These systems are supported by substantial amounts of both local and networked disk storage for individual and group use which are backed up regularly. Linux servers are available for general instructional and research purposes as well as hardware and virtual machines which are adapted to specialized needs.

COURSES

For the list of courses offered and the course descriptions, please consult the courses section of the departmental web page (<https://computerscience.uchicago.edu/graduate/courses>).

COMPUTER SCIENCE COURSES

CMSC 30100. Technical Writing and Presentation. 100 Units.

Clear, logical writing and presentations are foundational skills for computer scientists. This class is meant to introduce computer science students to basic ideas and techniques for effective communication in both writing and presentations. The class will include several complementary components, including critical analysis of technical papers, weekly writing assignments focusing on writing style, clarity, and logical flow, and discussions of style for different research areas and venues. Later weeks will focus on skills for effective technical presentations in different settings, e.g. conference presentations, job talks, and keynotes. The course is primarily targeted towards graduates students, although undergraduates can audit the class (or enroll with permission from the instructor).

Instructor(s): Ben Zhao Terms Offered: Autumn

Prerequisite(s): None

CMSC 31010. Mathematical Foundations. 100 Units.

This course is an introduction to formal tools and techniques which can be used to better understand linguistic phenomena. A major goal of this course is to enable students to formalize and evaluate theoretical claims.

Equivalent Course(s): CMSC 21010, LING 21010, LING 31010

CMSC 31140. Computational Imaging: Theory and Methods. 100 Units.

Computational imaging refers to the process of forming images from data where computation plays an integral role. This course will cover basic principles of computational imaging, including image denoising, regularization techniques, linear inverse problems and optimization-based solvers, and data acquisition models associated with tomography and interferometry. Specific topics may include patch-based denoising, sparse coding, total variation, dictionary learning, computational photography, compressive imaging, inpainting, and deep learning for image reconstruction.

Instructor(s): R. Willett Terms Offered: Spring

Equivalent Course(s): STAT 31140, CAAM 31140

CMSC 31150. Mathematical Toolkit. 100 Units.

Introduction to mathematical techniques of linear algebra and probability used in different areas of computer science. Topics in include Linear Algebra (Hilbert spaces, eigenvalues and eigenvectors, SVD, least squares), discrete probability, Gaussian variables, concentration inequalities and dimension reduction, Linear Programming and LP duality. Time permitting, martingales, stochastic processes.

Instructor(s): Tulsiani Terms Offered: Autumn

Equivalent Course(s): TTIC 31150

CMSC 31230. Fundamentals of Deep Learning. 100 Units.

Introduction to fundamental principles of deep learning. Although deep learning systems are evolving rapidly, this course attempts to teach material that will remain relevant and useful as the field changes. The course will emphasize theoretical and intuitive understanding to the extent possible. Expected outcomes: Ability to design and train novel deep learning architectures. An understanding of the general issues and phenomenon sufficient to guide architecture design and training.

Instructor(s): David McAllester Terms Offered: Winter

Prerequisite(s): Introduction to machine learning

Equivalent Course(s): TTIC 31230

CMSC 32001. Topics in Programming Languages. 100 Units.

This course covers a selection of advanced topics in programming languages.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 32200. Computer Architecture. 100 Units.

This course is a survey of contemporary computer organization covering CPU design, instruction sets, control, processors, busses, ALU, memory, pipelined computers, multiprocessors, networking, and case studies. We focus on the techniques of quantitative analysis and evaluation of modern computing systems, such as the selection of appropriate benchmarks to reveal and compare the performance of alternative design choices in system design. We emphasize major component subsystems of high-performance computers: pipelining, instruction-level parallelism, memory hierarchies, input/output, and network-oriented interconnections.

Instructor(s): Hoffmann Terms Offered: Autumn

CMSC 32201. Topics in Computer Architecture. 100 Units.

This course covers a selection of advanced topics in computer architecture.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 32250. Intro to Computer Security. 100 Units.

This course introduces the principles and practice of computer security. It aims to teach how to model threats to computer systems and how to think like a potential attacker. It presents standard cryptographic functions and protocols and gives an overview of threats and defenses for software, host systems, networks, and the Web. It also touches on some of the legal, policy, and ethical issues surrounding computer security in areas such as privacy, surveillance, and the disclosure of security vulnerabilities. The goal of this course is to provide a foundation for further study in computer security and to help better understand how to design, build, and use computer systems more securely.

CMSC 33000. Operating Systems. 100 Units.**CMSC 33001. Topics in Systems. 100 Units.**

This course covers a selection of advanced topics in computer systems.

Terms Offered: Autumn, Spring, Winter

Prerequisite(s): Consent of department counselor and instructor

CMSC 33100. Advanced Operating Systems. 100 Units.

This course covers advanced topics in operating systems and systems research. Possible topics include, but are not limited to the following: OS philosophies, networked operating systems, distributed file systems, virtual machines, fault-tolerant systems, resource allocation, parallel computing and multiprocessing, cloud computing, and security.

Instructor(s): Lu Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor

CMSC 33200. Topics: Operating Systems. 100 Units.**CMSC 33210. Usable Security and Privacy. 100 Units.**

Questions of usability and privacy in computer systems, including human factors.

Instructor(s): Ur Terms Offered: Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 33231. Topics in Human Computer Interaction. 100 Units.

Graduate study of topics in Human Computer Interaction (HCI). In this class, we critically examine hot topics that might impact the future generations of computing interfaces; these include: physiological I/O (e.g., brain and muscle computer interfaces), tangible computing (giving shape and form to interfaces), wearable computing (I/O devices closer to the user's body), rendering new realities (e.g., virtual & augmented reality), haptics (giving computers the ability to generate touch and forces) and unusual auditory interfaces (e.g., silent speech & microphones as sensors). In this class you will: (1) learn about these new developments during the lectures, (2) read HCI papers and summarize these in short weekly assignments, and lastly, (3) start inventing the future of computing interfaces by proposing a new idea in the form of a paper abstract, which you will present at the end of the semester and have it peer-reviewed in class by your classmates.

Instructor(s): Pedro Lopes Terms Offered: Winter

CMSC 33250. Introduction to Computer Security. 100 Units.

This course introduces the principles and practice of computer security. It aims to teach how to model threats to computer systems and how to think like a potential attacker. It presents standard cryptographic functions and protocols and gives an overview of threats and defenses for software, host systems, networks, and the Web. It also touches on some of the legal, policy, and ethical issues surrounding computer security in areas such as privacy, surveillance, and the disclosure of security vulnerabilities. The goal of this course is to provide a foundation for further study in computer security and to help better understand how to design, build, and use computer systems more securely.

Instructor(s): A. Feldman Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor

CMSC 33251. Topics in Computer Security. 100 Units.

Seminar on current topics in computer security.

CMSC 33300. Networks and Distributed Systems. 100 Units.

This course will focus on studying the state of the art in networking and networked systems, from a research and design perspective. We will cover a variety of topics from routing protocols to Internet stability, peer-to-peer, social networks and networking for data centers. Coverage of each topic will dive into fundamental design questions of protocols and systems, including updates from results of currently active research. Readings will focus on classic and current research publications, and students are expected to come in with a solid background on networking basics. Students will learn tools, techniques, and concepts while learning to carry out original research in an open-ended course project, with the end goal of producing real, publishable results by the end of the quarter. Students are also expected to gain experience in two skills: quickly reading technical papers (without sacrificing understanding), and giving clear and well-organized presentations.

Instructor(s): B. Sotomayor Terms Offered: Winter

CMSC 33400. Mobile Computing. 100 Units.

Mobile computing is pervasive and changing nearly every aspect of society. Sensing, actuation, and mediation capabilities of mobile devices are transforming all aspects of computing: uses, networking, interface, form, etc. This course explores new technologies driving mobile computing and their implications for systems and society. Current focus areas include expanded visual experience with computational photography, video and interactive augmented reality, and synchronicity and proximity-detection to enable shared social experiences. Labs expose students to software and hardware capabilities of mobile computing systems, and develop the capability to envision radical new applications for a large-scale course project.

Instructor(s): A. Chien Terms Offered: Not offered 2017-2018.

Prerequisite(s): CMSC 23000 or 23300 or equivalent are required.

CMSC 33501. Topics in Databases. 100 Units.

This course covers a selection of advanced topics in database systems.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 33520. Data Intensive Computer Systems. 100 Units.

Big Data and Data Analytics have become hot topics as well as drivers of multi-billion dollar industries. With unprecedented data collection from e-commerce, the WWW, scientific instruments, mobile phones, and IoT. The course objective is to expose students to the technical challenges of data-intensive computing systems, including canonical driving problems, research systems, and emerging technologies. While other classes focus on analysis algorithms (or even underlying statistical or machine learning methods), we focus on the computer systems and technology needed to achieve scalable and efficient data-intensive computing systems. Through paper reading, discussions, presentation, and in-depth projects, students will develop a broad familiarity with current challenges and hands-on experience with a range of systems which together provide a solid preparation for research in the area. Course topics include: parallel filesystems, SQL databases, NoSQL/Mapreduce systems, storage class memories (from Flash to Memristor to ReRAM), and popular open source infrastructures such as Spark, Succinct, Hadoop, VoltDB/HadoopDB, Cassandra, Memcached, MongoDB, and others.

Instructor(s): Chien Terms Offered: Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 33550. Introduction to Databases. 100 Units.

This course is an introduction to database design and programming using the relational model. Topics include DBMS architecture, entity-relationship and relational models, relational algebra, relational calculus, functional dependencies and normal forms, web DBs and PHP, query optimization, and physical data organization. The lab section will guide students through the collaborative implementation of a relational database management system, allowing students to see topics such as physical data organization and DBMS architecture in practice, and exercise general skills such as collaborative software development.

Instructor(s): Elmore Terms Offered: Winter

Prerequisite(s): Consent of department counselor and instructor

CMSC 33600. Type Systems for Programming Languages. 100 Units.

This course covers the basic ideas of type systems, their formal properties, their role in programming language design, and their implementation. Exercises involving design and implementation explore the various options and issues.

Terms Offered: Winter

Prerequisite(s): Consent of department counselor

Note(s): CMSC 22100 recommended. Not offered in 2016-17.

CMSC 33700. Computer Graphics. 100 Units.

This course introduces the basic concepts and techniques used in three-dimensional computer graphics. The focus is on real-time rendering techniques, such as those found in computer games. These include coordinate systems and transformations, the graphics pipeline, basic geometric algorithms, texture mapping, level-of-detail optimizations, and shadows. Students are required to complete both written assignments and programming projects using OpenGL.

Instructor(s): J. Reppy Terms Offered: TBD

Prerequisite(s): Consent of department counselor and instructor

CMSC 33710. Scientific Visualization. 100 Units.

Scientific visualization combines computer graphics, numerical methods, and mathematical models of the physical world to create a visual framework for understanding and solving scientific problems. The mathematical and algorithmic foundations of scientific visualization (for example, scalar, vector, and tensor fields) will be explained in the context of real-world data from scientific and biomedical domains. The course is also intended for students outside computer science who are experienced with programming and computing with scientific data. Programming projects will be in C and C++.

Instructor(s): G. Kindlmann Terms Offered: Winter

Prerequisite(s): Strong programming skills and basic knowledge of linear algebra and calculus

Note(s): This course is offered in alternate years.

CMSC 33750. Machine Learning and Cancer. 100 Units.

In this topics course we will investigate the use of machine learning methods in the study of Cancer and the development of precision oncology. Cancer is a complex disease that impacts millions each year. Recently the concept of precision oncology has gained popularity as an approach to customize Cancer treatments based on the genomic profile and history of the patient, the molecular properties of the patient's tumor and the action and mode of treatments that are available. At the center of any precision medicine approach are large-scale datasets from which predictive models can be built, scalable analysis methods for processing and integrating data and machine learning methods for constructing and evaluating predictive models that can be used in diagnosis, treatment planning, and outcome prediction for patient care. In this course we will work through the development of the entire pipeline from raw data to predictive models. We will develop and evaluate predictive models for drug response, tumor typing, image based diagnosis, and treatment outcomes. We will also develop some population based models that include environmental factors. Students will work through key papers, representative datasets and a variety of machine learning methods including some deep learning models under development in the joint DOE/NCI Cancer project. Familiarity with python and machine learning will be helpful. Students will have an opportunity to do significant project work as part of the course.

Instructor(s): Rick Stevens, Robert Grossman Terms Offered: Autumn

CMSC 33900. Data Visualization. 100 Units.

Data visualizations provide a visual setting in which to explore, understand, and explain datasets. This class describes mathematical and perceptual principles, methods, and applications of "data visualization" (as it is popularly understood to refer primarily to tabulated data). A range of data types and visual encodings will be presented and evaluated. Visualizations will be primarily web-based, using D3.js, and possibly other higher-level languages and libraries.

CMSC 34200. Numerical Hydrodynamics. 100 Units.

This course covers numerical methods for the solution of fluid flow problems. We also make a theoretical evaluation of the methods and experimental study based on the opinionated book *Fundamentals of Computational Fluid Dynamics* by Patrick J. Roache.

Instructor(s): T. Dupont Terms Offered: Winter

Prerequisite(s): Consent of department counselor. Ability to program; and familiarity with elementary numerical methods and modeling physical systems by systems of differential equations

Note(s): Not offered in 2016-17. Offered in alternate years.

CMSC 34702. Topics in Networks: 100 Units.**CMSC 34703. Topics in Distributed Systems. 100 Units.**

Topics in Distributed Systems

Instructor(s): Junchen Jiang Terms Offered: Autumn

CMSC 34900. Topics in Scientific Computing. 100 Units.

This course covers a selection of advanced topics in Scientific Computing.

Instructor(s): Scott Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor

Equivalent Course(s): MAAD 24850

CMSC 34901. Special Topics in Operations Mgt./Mgt. Science. 100 Units.

Course Search

Equivalent Course(s): BUSN 40901

CMSC 35000. Introduction to Artificial Intelligence. 100 Units.

This course introduces the theoretical, technical, and philosophical aspects of Artificial Intelligence. We emphasize computational and mathematical modes of inquiry into the structure and function of intelligent systems. Topics include learning and inference, speech and language, vision and robotics, and reasoning and search.

CMSC 35050. Computational Linguistics. 100 Units.

This course introduces the problems of computational linguistics and the techniques used to deal with them, focusing primarily on probabilistic models and techniques. Topics are drawn primarily from phonology, morphology, and syntax. Special topics include automatic learning of grammatical structure and the treatment of languages other than English.

Instructor(s): J. Goldsmith Terms Offered: Spring

Prerequisite(s): CMSC 12200, 15200 or 16200, or by consent

Equivalent Course(s): LING 38600, DIGS 30013

CMSC 35100. Natural Language Processing. 100 Units.

This course introduces the theory and practice of natural language processing, with applications to both text and speech. Topics include regular expressions, finite state automata, morphology, part of speech tagging, context free grammars, parsing, semantics, discourse, and dialogue. Symbolic and probabilistic models are presented. Techniques for automatic acquisition of linguistic knowledge are emphasized.

CMSC 35110. Speech Technologies. 100 Units.

This course will introduce techniques used in speech technologies, mainly focusing on speech recognition. Speech recognition is one of the oldest and most complex structured sequence prediction tasks receiving significant research and commercial attention, and therefore provides a good case study for many of the techniques that are used in other areas of artificial intelligence involving sequence modeling. It is also a good example of the effectiveness of combining statistics and learning with domain knowledge. The course will include practical homework exercises using Matlab and speech toolkits. Expected outcomes: Understand and apply tools for analyzing speech time series such as Fourier analysis and dynamic time warping. Understand and apply hidden Markov models, Gaussian mixtures, and the EM algorithm for speech problems. Understand and apply n-gram language models, smoothing techniques, and their application to speech recognition. Understand generative and discriminative structured prediction approaches for speech problems.

Equivalent Course(s): TTIC 31110

CMSC 35200. Deep Learning Systems. 100 Units.

Deep learning is emerging as a major technique for solving problems in a variety of fields, including computer vision, personalized medicine, autonomous vehicles, and natural language processing. Critical to success in these target domains is the development of learning systems: deep learning frameworks that support the tasks of learning complex models and inferring with those models, and targeting heterogeneous computing devices. This course is aimed as an introduction to this topic. We will cover various aspects of deep learning systems, including: basics of deep learning, programming models for expressing machine learning models, automatic differentiation methods used to compute gradients for training, memory optimization, scheduling, data and model parallel and distributed learning, hardware acceleration, domain specific languages, workflows for large-scale machine learning including hyper parameter optimization and uncertainty quantification, and training data and model serving. The goal is to present a comprehensive picture of how current deep learning systems work, discuss and explore research opportunities, for extending and building on existing frameworks, and deep dive into the accelerators being developed by numerous startups to address the needs of the machine learning community. A typical week will contain one lecture on a specific aspect of deep learning systems and one lab session exploring technologies such as Keras, Tensorflow, CNTK, Mxnet, and PyTorch.

Instructor(s): Ian Foster, Rick Stevens
Terms Offered: Autumn

Note(s): This course will provide useful background for students wishing to take our Spring 2019 class on Neuromorphic Computing.

CMSC 35230. Applications of Machine Learning in Large-Scale Computing Systems. 100 Units.

Recent research has demonstrated the feasibility of replacing the traditional heuristics used in computer systems with ones learned from data in areas such as scheduling, data structure design, query optimization, compilers, and control of warehouse scale computing systems. This seminar overviews this recent research trend and studies the characteristics of successful research in this space. The objective is to understand whether this trend will have a long-term impact on the design and implementation of large-scale computing systems. The seminar hopes to highlight the remaining bottlenecks to practical acceptance of machine learning in computing infrastructure and to inspire future systems and learning research.

Terms Offered: Winter

Prerequisite(s): Good working knowledge of computer systems, especially in the areas of operating systems and databases.

CMSC 35246. Deep Learning. 100 Units.

Deep Neural Networks are remarkably effective in large scale learning problems, especially in speech recognition and computer vision. This course aims to cover the basics of Deep Learning, some of the underlying theory, and specific architectures, including Convolutional Neural Networks, Recurrent Neural Networks and the Long Short Term Memory Networks.

CMSC 35300. Mathematical Foundations of Machine Learning. 100 Units.

This course is an introduction to the mathematical foundations of machine learning that focuses on matrix methods and features real-world applications ranging from classification and clustering to denoising and data analysis. Mathematical topics covered include linear equations, regression, regularization, the singular value decomposition, and iterative algorithms. Machine learning topics include the lasso, support vector machines, kernel methods, clustering, dictionary learning, neural networks, and deep learning. Students are expected to have taken calculus and have exposure to numerical computing (e.g. Matlab, Python, Julia, R). Appropriate for graduate students or advanced undergraduates.

Instructor(s): Rebecca Willett
Terms Offered: Winter

Prerequisite(s): Competence programming in Matlab, Julia, R, Python, or an equivalent system; knowledge of calculus, mathematical maturity.

CMSC 35350. Neuromorphic Computing. 100 Units.

The human brain consumes around 20 watts-less energy than a lightbulb-but can perform tasks, such as understanding natural language and interpreting images, that tax megawatt-scale supercomputers. Thus, we may wonder: can we achieve energy efficiencies similar to those of the human brain by building analog electronic circuits that mimic the neuro-biological architectures found in animal nervous systems? This concept, named neuromorphic computing, has become increasingly popular as the energy demands of conventional computers increase. Research in this area is producing a great variety of new computational architectures, microelectronics concepts, algorithmic approaches, and even neuroscience insights. Our goal in this course is to introduce students to the state of knowledge in neuromorphic computing and thus to prepare them to undertake original research in this area. The class will be organized primarily around reading, presenting, and discussing research papers. Topics to be covered include: Neuromorphic concepts Theory and algorithms Microelectronics and devices Programming models and environments Applications: Machine learning, deep learning, robot control, ... Platforms: BrainScaleS, Loihi, SpiNNaker Neuroscience
Terms Offered: Spring TBD

CMSC 35400. Machine Learning. 100 Units.

This course provides hands-on experience with a range of contemporary machine learning algorithms, as well as an introduction to the theoretical aspects of the subject. Topics covered include: the PAC framework, Bayesian learning, graphical models, clustering, dimensionality reduction, kernel methods including SVMs, matrix completion, neural networks, and an introduction to statistical learning theory.

Terms Offered: Spring

Prerequisite(s): Consent of instructor

Equivalent Course(s): CAAM 37710, STAT 37710

CMSC 35401. Topics in Machine Learning: Applied Machine Learning. 100 Units.

We will cover recent research in applied machine learning and systems, particularly with respect to questions of robustness and resilience against attacks on deep learning systems. Students will present papers, lead discussion, and run open ended projects related to the topic.

Terms Offered: TBD Winter

CMSC 35425. Topics in Statistical Machine Learning. 100 Units.

Topics in Statistical Machine Learning" is a second graduate level course in machine learning, assuming students have had previous exposure to machine learning and statistical theory. The emphasis of the course is on statistical methodology, learning theory, and algorithms for large-scale, high dimensional data. The selection of topics is influenced by recent research results, and students can take the course in more than one quarter.

Terms Offered: To be determined

Equivalent Course(s): STAT 37790

CMSC 35470. Mathematical Computation IIA: Convex Optimization. 100 Units.

The course will cover techniques in unconstrained and constrained convex optimization and a practical introduction to convex duality. The course will focus on (1) formulating and understanding convex optimization problems and studying their properties; (2) understanding and using the dual; and (3) presenting and understanding optimization approaches, including interior point methods and first order methods for non-smooth problems. Examples will be mostly from data fitting, statistics and machine learning.

Instructor(s): Nathan Srebro Terms Offered: Winter

Prerequisite(s): STAT 30900/CMSC 37810

Equivalent Course(s): TTIC 31070, STAT 31015, CAAM 31015, BUSN 36903

CMSC 35600. Image Processing/Computer Vision. 100 Units.

Equivalent Course(s): MPHY 39600

CMSC 35610. Computational Linguistics I. 100 Units.

This course is an introduction to topics at the intersection of computation and language, oriented toward linguists and cognitive scientists. We will study computational linguistics from both scientific and engineering angles – the use of computational modeling to address scientific questions in linguistics and cognitive science, as well as the design of computational systems to solve engineering problems in natural language processing (NLP). The course will combine analysis and discussion of these approaches with training in the programming and mathematical foundations necessary to put these methods into practice. Our goal in this quarter is for students to leave the course able to engage with and evaluate research in cognitive/linguistic modeling and NLP, and to be able to implement intermediate-level computational models.

Instructor(s): Allyson Ettinger Terms Offered: Autumn

Prerequisite(s): At least two courses in linguistics or other cognitive science field (or permission of instructor)

Equivalent Course(s): CMSC 25610, LING 28610, LING 38610

CMSC 35620. Computational Linguistics II. 100 Units.

This is the second in a two-course sequence providing an introduction to topics at the intersection of computation and language, oriented toward linguists and cognitive scientists. In this quarter we will cover more advanced topics in cognitive/linguistic modeling and natural language processing (NLP), applying more complex programming and mathematical foundations. Our goal in this quarter is for students to leave the course able to implement advanced models and conduct novel research in cognitive/linguistic modeling and NLP.

Instructor(s): Allyson Ettinger Terms Offered: Spring

Prerequisite(s): Computational Linguistics I or permission of instructor

Equivalent Course(s): LING 28620, CMSC 25620, LING 38620

CMSC 35900. Topics in Artificial Intelligence. 100 Units.

This course covers topics in artificial intelligence.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 36500. Algorithms in Finite Groups. 100 Units.

We consider the asymptotic complexity of some of the basic problems of computational group theory. The course demonstrates the relevance of a mix of mathematical techniques, ranging from combinatorial ideas, the elements of probability theory, and elementary group theory, to the theories of rapidly mixing Markov chains, applications of simply stated consequences of the Classification of Finite Simple Groups (CFSG), and, occasionally, detailed information about finite simple groups. No programming problems are assigned.

Instructor(s): L. Babai Terms Offered: Spring

Prerequisite(s): Consent of department counselor. Linear algebra, finite fields, and a first course in group theory (Jordan-Holder and Sylow theorems) required; prior knowledge of algorithms not required

Note(s): This course is offered in alternate years.

Equivalent Course(s): MATH 37500

CMSC 37000. Algorithms. 100 Units.

This is a graduate level course on algorithms with the emphasis on central combinatorial optimization problems and advanced methods for algorithm design and analysis. Topics covered include asymptotic analysis, greedy algorithms, dynamic programming, amortized analysis, randomized algorithms and probabilistic methods, combinatorial optimization and approximation algorithms, linear programming, and advanced data structures.

Expected outcomes: Ability to design and rigorously analyze algorithms using paradigms such as greedy or dynamic programming. Understand the use of linear programming in optimization. Be able to formulate problems as linear programs. Understand linear programming duality and applications to problems such as max-flow/min-cut. Be able to write duals for linear programs.

Instructor(s): Yury Makarychev Terms Offered: Winter

Prerequisite(s): Assumes familiarity with proofs and an the asymptotic notation. Some basic knowledge of the notion of NP-hardness is also required.

Equivalent Course(s): TTIC 31010

CMSC 37100. Topics in Algorithms. 100 Units.

This course covers current topics in algorithms.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor. CMSC 27200 or consent of instructor.

CMSC 37110. Discrete Mathematics. 100 Units.

This course emphasizes mathematical discovery and rigorous proof, illustrated on a variety of accessible and useful topics, including basic number theory, asymptotic growth of sequences, combinatorics and graph theory, discrete probability, and finite Markov chains. This course includes an introduction to linear algebra.

Instructor(s): L. Babai Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor

CMSC 37115. Introduction to Mathematical Reasoning via Discrete Mathematics. 100 Units.

In this course, students with little prior exposure to rigorous mathematical reasoning gain experience in approaching mathematical questions, developing concepts, formalizing ideas, turning intuition into rigorous proof. These phases of mathematical thinking are illustrated on a variety of accessible and useful topics. Students practice the quantifier notation both as a shorthand and as one of the organizing principles of formal statements.

New concepts are built from such basic mathematical primitives as numbers, sets, and functions. Basic counting is a recurring theme and provides a source for sequences, another recurring theme, which in turn feeds into the study of asymptotic behavior (rates of growth). Further topics to be covered include proof by induction; the elements of number theory (gcd, congruences, the Chinese Remainder Theorem, Fermat's little Theorem); recurrences, Fibonacci numbers, generating functions; the elements of graph theory (trees, paths and cycle, chromatic number, independent sets and cliques, connectivity, planarity, directed graphs), finite probability spaces, random variables, expected value and variance, independence, concentration inequalities, and random graphs.

Terms Offered: Winter

Prerequisite(s): One quarter of calculus

CMSC 37120. Topics in Discrete Mathematics. 100 Units.

Equivalent Course(s): MATH 37120

CMSC 37200. Combinatorics. 100 Units.

Methods of enumeration, construction, and proof of existence of discrete structures are discussed. The course emphasizes applications of linear algebra, number theory, and the probabilistic method to combinatorics.

Applications to the theory of computing are indicated, and open problems are discussed.

Instructor(s): L. Babai Terms Offered: Winter

Prerequisite(s): Consent of department counselor. Linear algebra, basic combinatorics, or consent of instructor.

Note(s): Not offered in 2016-17.

CMSC 37503. Approximation Algorithms. 100 Units.

This is a basic course on approximation algorithms, with the main focus on approximation algorithms for central combinatorial optimization problems. We will mostly focus on classical algorithmic results, but will also present some state of the art results and challenges in the area of approximation. The course will cover major algorithmic techniques, including LP-rounding, primal-dual schema, metric methods, SDP rounding and so on. While the main focus of the course is on algorithms, we will also discuss lower bounds on approximation and connections between algorithm design and lower bound proofs. Assumes the knowledge of material covered in the Algorithms course. Expected outcomes: Understand concepts such as approximation factor, polynomial time approximation schemes and hardness of approximation. Understand applications of linear programs (LPs) to design of approximation algorithms. Learn to analyze rounding algorithms for LPs and understand integrality gaps. Be able to apply LP duality. Understand semi-definite programming and its applications to approximation.

Instructor(s): Julia Chuzhoy Terms Offered: Autumn

Equivalent Course(s): TTIC 31080

CMSC 37530. Graph Theory. 100 Units.

This course covers the basics of the theory of finite graphs. Topics include shortest paths, spanning trees, counting techniques, matchings, Hamiltonian cycles, chromatic number, extremal graph theory, Turan's theorem, planarity, Menger's theorem, the max-flow/min-cut theorem, Ramsey theory, directed graphs, strongly connected components, directly acyclic graphs, and tournaments. Techniques studied include the probabilistic method.

Instructor(s): Laszlo Babai Terms Offered: Spring

CMSC 37701. Topics in Bioinformatics. 100 Units.

This course covers current topics in bioinformatics.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 37810. Mathematical Computation I: Matrix Computation Course. 100 Units.

This is an introductory course on numerical linear algebra, which is quite different from linear algebra. We will be much less interested in algebraic results that follow from axiomatic definitions of fields and vector spaces but much more interested in analytic results that hold only over the real and complex fields. The main objects of interest are real- or complex-valued matrices, which may come from differential operators, integral transforms, bilinear and quadratic forms, boundary and coboundary maps, Markov chains, correlations, DNA microarray measurements, movie ratings by viewers, friendship relations in social networks, etc. Numerical linear algebra provides the mathematical and algorithmic tools for analyzing these matrices. Topics covered: basic matrix decompositions LU, QR, SVD; Gaussian elimination and LU/LDU decompositions; backward error analysis, Gram-Schmidt orthogonalization and QR/complete orthogonal decompositions; solving linear systems, least squares, and total least squares problem; low-rank matrix approximations and matrix completion. We shall also include a brief overview of stationary and Krylov subspace iterative methods; eigenvalue and singular value problems; and sparse linear algebra.

Terms Offered: Autumn

Prerequisite(s): Linear algebra (STAT 24300 or equivalent) and some previous experience with statistics.

Equivalent Course(s): STAT 30900, CAAM 30900

CMSC 37812. Mathematical Computation III: Numerical Methods for PDE's. 100 Units.

The first part of this course introduces basic properties of PDE's; finite difference discretizations; and stability, consistency, convergence, and Lax's equivalence theorem. We also cover examples of finite difference schemes; simple stability analysis; convergence analysis and order of accuracy; consistency analysis and errors (i.e., dissipative and dispersive errors); and unconditional stability and implicit schemes. The second part of this course includes solution of stiff systems in 1, 2, and 3D; direct vs. iterative methods (i.e., banded and sparse LU factorizations); and Jacobi, Gauss-Seidel, multigrid, conjugate gradient, and GMRES iterations.

Terms Offered: Spring

Prerequisite(s): Some prior exposure to differential equations and linear algebra

Equivalent Course(s): CAAM 31100, MATH 38309, STAT 31100

CMSC 38000-38100. Computability Theory I-II.

The courses in this sequence are offered in alternate years.

CMSC 38000. Computability Theory I. 100 Units.

We investigate the computability and relative computability of functions and sets. Topics include mathematical models for computations, basic results such as the recursion theorem, computably enumerable sets, and priority methods.

Instructor(s): D. Hirschfeldt Terms Offered: Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): MATH 30200

CMSC 38100. Computability Theory II. 100 Units.

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): D. Hirschfeldt Terms Offered: Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): MATH 30300

CMSC 38100. Computability Theory II. 100 Units.

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): D. Hirschfeldt Terms Offered: Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): MATH 30300

CMSC 38130. Honors Introduction to Complexity Theory. 100 Units.

Computability topics are discussed (e.g., the s - m - n theorem and the recursion theorem, resource-bounded computation). This course introduces complexity theory. Relationships between space and time, determinism and non-determinism, NP-completeness, and the P versus NP question are investigated.

Terms Offered: Winter

CMSC 38300. Numerical Solutions to Partial Differential Equations. 100 Units.

This course covers the basic mathematical theory behind numerical solution of partial differential equations. We investigate the convergence properties of finite element, finite difference and other discretization methods for solving partial differential equations, introducing Sobolev spaces and polynomial approximation theory. We emphasize error estimators, adaptivity, and optimal-order solvers for linear systems arising from PDEs. Special topics include PDEs of fluid mechanics, max-norm error estimates, and Banach-space operator-interpolation techniques.

Instructor(s): L. R. Scott Terms Offered: Spring. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor and instructor

Equivalent Course(s): MATH 38300

CMSC 38400. Cryptography. 100 Units.

Cryptography is the use of algorithms to protect information from adversaries. Though its origins are ancient, cryptography now underlies everyday technologies including the Internet, wifi, cell phones, payment systems, and more. This course is an introduction to the design and analysis of cryptography, including how "security" is defined, how practical cryptographic algorithms work, and how to exploit flaws in cryptography. The course will cover algorithms for symmetric-key and public-key encryption, authentication, digital signatures, hash functions, and other primitives.

Instructor(s): David Cash Terms Offered: Winter

CMSC 38405. Arithmetic Combinatorics. 100 Units.

This course covers a variety of topics in arithmetic combinatorics such as inverse problems, incidence geometry, uniformity, regularity and pseudo-randomness. A special attention will be paid to connections to classical mathematics and theoretical computer science.

CMSC 38410. Quantum Computing. 100 Units.

This course covers mathematical and complexity aspects of quantum computing, putting aside all questions pertaining to its physical realizability. Possible topics include: (1) quantum model of computation, quantum complexity classes, and relations to their classical counterparts; (2) famous quantum algorithms (including Shor and Grover); (3) black-box quantum models (lower and upper bounds); (4) quantum communication complexity (lower and upper bounds); and (5) quantum information theory.

Instructor(s): A. Razborov Terms Offered: Winter. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor. Basic knowledge of computational complexity and linear algebra required; knowledge of quantum mechanics not required

Note(s): Not offered in 2016-17.

Equivalent Course(s): MATH 38410

CMSC 38500. Computability and Complexity Theory. 100 Units.

Part one of this course consists of models for defining computable functions: primitive recursive functions, (general) recursive functions, and Turing machines; the Church-Turing Thesis; unsolvable problems; diagonalization; and properties of computably enumerable sets. Part two of this course deals with Kolmogorov (resource bounded) complexity: the quantity of information in individual objects. Part three of this course covers functions computable with time and space bounds of the Turing machine: polynomial time computability, the classes P and NP, NP-complete problems, polynomial time hierarchy, and P-space complete problems.

Instructor(s): A. Razborov Terms Offered: Winter

Prerequisite(s): Consent of department counselor and instructor

Note(s): Not offered in 2016-17.

Equivalent Course(s): MATH 30500, TTIC 31060

CMSC 38502. Topics in Combinatorics and Logic. 100 Units.

We will discuss several ideas, methods and results in Combinatorics and those parts of Mathematical Logic that are close to Theoretical Computer Science. Complexity Theory itself is excluded this year since I will teach a more systematic course on the subject in the Spring Quarter.

Instructor(s): Alexander Razborov Terms Offered: Winter

Prerequisite(s): None

Equivalent Course(s): MATH 38502

CMSC 38600. Complexity Theory A. 100 Units.

This course covers topics in computational complexity theory, with an emphasis on machine-based complexity classes.

Terms Offered: Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 38700. Complexity Theory B. 100 Units.

This course covers topics in computational complexity theory, with an emphasis on combinatorial problems in complexity.

Instructor(s): A. Razborov Terms Offered: Spring

Prerequisite(s): Consent of department counselor and instructor

Equivalent Course(s): MATH 38703

CMSC 38800. Complexity Theory. 100 Units.

Complexity Theory is the branch of Theoretical Computer Science that studies inherent limitations on the efficiency of performing various computational tasks. In this course I hope to cover at least the most fundamental results from uniform (Turing) complexity, circuit complexity, communication complexity, algebraic complexity and proof complexity.

Instructor(s): Alexander Razborov Terms Offered: Spring

Prerequisite(s): None, but some familiarity with the book "Computational Complexity" by Arora and Barak might be helpful.

Equivalent Course(s): MATH 38800

CMSC 38815. Geometric Complexity. 100 Units.

This course provides a basic introduction to geometric complexity theory, an approach to the P vs. NP and related problems through algebraic geometry and representation theory. No background in algebraic geometry or representation theory will be assumed.

Instructor(s): K. Mulmuley Terms Offered: Autumn. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor and instructor

Note(s): Background in algebraic geometry or representation theory not required

Equivalent Course(s): MATH 38815

CMSC 39000. Computational Geometry. 100 Units.

This course is a seminar on topics in computational geometry.

Instructor(s): K. Mulmuley Terms Offered: Spring. This course is offered in alternate years.

Note(s): Not offered in 2016-17.

CMSC 39010. Computational and Metric Geometry. 100 Units.

The course covers fundamental concepts, algorithms and techniques in computational and metric geometry. Topics covered include: convex hulls, polygon triangulations, range searching, segment intersection, Voronoi diagrams, Delaunay triangulations, metric and normed spaces, low-distortion metric embeddings and their applications in approximation algorithms, padded decomposition of metric spaces, Johnson-Lindenstrauss transform and dimension reduction, approximate nearest neighbor search and locality-sensitive hashing.

Expected outcomes: -- Know standard algorithms and data structures for solving geometric problems -- Be able to design efficient algorithms and data structures for solving geometric problems -- Understand basic concepts of metric geometry such as metric and normed space, low distortion embedding, dimension reduction, nearest neighbor search. -- Understand applications of metric geometry to the field of approximation algorithms and other areas of computer science.

Instructor(s): Makarychev, Yury Terms Offered: Winter

Prerequisite(s): Undergraduate-level algorithms, linear algebra and probability classes; a good background in mathematical analysis/calculus.

Equivalent Course(s): TTIC 31100

CMSC 39020. Geometry, Complexity and Algorithms. 100 Units.

This course will try to explore these three topics and their interactions. Among the topics likely to be discussed are metric measure geometry (e.g. concentration of measure) and its use designing algorithms, machine learning, manifold learning, the complexity of the construction of isotopies and nullcobordisms, the Blum-Cucker-Smale theory of real computation and estimates for the complexity of root finding and related problems, persistence homology and applications, and other topics that seem like a good idea as the course develops.

Equivalent Course(s): MATH 38900

CMSC 39600. Topics in Theoretical Computer Science. 100 Units.

A seminar on current research in theoretical computer science.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 39800. Rdg/Rsch: Computer Science. 300.00 Units.

Directed reading and research in computer science, under the guidance of a faculty member.

CMSC 70000. Advanced Study: Computer Science. 300.00 Units.

Advanced Study: Computer Science



DEPARTMENT OF THE GEOPHYSICAL SCIENCES

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PROGRAM OF GRADUATE STUDY

OVERVIEW AND PHILOSOPHY

The department serves graduate students who seek the Ph.D. in Earth, planetary, geological and environmental sciences and the paleontological and paleobiological disciplines of biological and historical sciences broadly conceived.

The Ph.D. signifies the graduate's mastery of the problems, techniques and knowledge covering the full spectrum of intellectual pursuit in the many disciplines listed above. The degree additionally acknowledges the candidate's contribution to specialized knowledge through original research conducted in experimental, observational and theoretical venues. The M.S. is also awarded to graduate students in the program, and is given in recognition of post-undergraduate scholarship. Students considering the program of graduate study should realize, however, that it is conceived primarily for study and research leading to the Ph.D.

The Department of the Geophysical Sciences was created in 1961 when the departments of geology and meteorology of the university were united to better embrace the multidisciplinary nature of research and scholarship applied to Earth, its place in the cosmos and its environmental and biological history. The precursor Department of Geology was founded in the 1890's and reflected the University of Chicago's distinctively modern philosophy toward education and research. What is today lauded as new, namely the approach to physical, chemical, biological and natural science of Earth that values connections and multidisciplinary ways of thinking, was the original organizing principle of the university's activities in Earth science at the time the university was first created. Faithful to its original conception, the department is exemplified today by the diverse, yet interactive, composition of the faculty, students and research activities.

Our program distinguishes itself from those at other institutions through our rigorous adherence to a principle that the path to knowledge in Earth sciences is best traveled when disciplinary ways of thinking are applied interactively. To follow this path, our students and faculty engage each other in a constant exchange of ideas that spans a variety of specialized interests and disciplines. Indeed, the range of specialized interests and disciplines encompassed by our single intimate community is, at typical universities elsewhere, housed in separate departments. The exchange of ideas our community offers is both literal (as when research techniques from one discipline are applied in another) and figurative (as when students of diverse background and interests attend a common seminar), and is marshaled through our philosophical view that intellectual power is drawn from many sources. The tension created by bringing together disparate disciplines with differing traditions leads to constructive discourse in our community.

AREAS OF STUDY

Research, classroom teaching and seminar activity in the program reflect the long tradition of esteem directed toward multidisciplinary knowledge. Graduate study and research today thus ranges from geochemical approaches to nucleosynthesis and planet forming cosmochemistry to geomorphology, from evolutionary paleobiology to microbial ecology, and from climate dynamics of Earth and other planets, biogeochemical cycles to early Earth geochemistry. Graduate students are exposed to the breadth of intellectual activity in the physical and natural science of the Earth through courses they take during their first two years of study and through weekly attendance of seminars where both faculty and visiting scientists present research lectures. Graduate students are expected to develop two skills. First is the ability to conduct scientific discourse across the full range of disciplines. Second is the ability to conduct original research leading to unique contributions in an area of specialization.

Research and teaching within the program is further amplified by associations with other groups within the university. The most notable programs allied with ours are: the committee on evolutionary biology (CEB, research on the evolution of life), the chemistry department (research on atmospheric and environmental chemistry), the department of astronomy and astrophysics (research on exoplanets), the Argonne National Lab (environmental chemistry, advanced computing, the Advanced Photon Source, CARS), the center for robust decision making on climate and energy policy (RDCEP), and the department of statistics.

STUDENT ADVISING

A distinctive element in the everyday life of the department is the mentoring relationship the faculty of the department provide for students of the program. In our program, students are regarded as colleagues, not subordinates. Students are guided in their learning and research activities by mentorship engaging both the program faculty and fellow students. This mentorship oversees both the course work activity and the student's research, and is conceived as a means of establishing the student as a full partner in research and scholarship. Formal mentoring activities involve regular academic advisory committee meetings that include a combination of faculty covering the student's field of specialty and faculty covering allied fields where cross disciplinary exchange of ideas or techniques may prove helpful to the student's progress. In addition to formal activities, mentoring also proceeds along informal avenues: the department faculty prides itself in maintaining an open door atmosphere, where students seeking help or advice can readily find it down the hall.

RESEARCH

Dissertation research can address any aspect of physical, chemical, biological and natural sciences of the Earth, its life and environment, and the solar system environment from which the planets were formed. Typically, dissertation research begins in the second year of the student's residence after courses taken in preparation for the preliminary examination have been completed and an oral research prospectus has been defended.

TEACHING, OUTREACH AND PROFESSIONAL SKILLS DEVELOPMENT

Young scientists are faced with an ever increasing demand for breadth in the scope of their professional skills: from teaching to proposal writing, and from website design to mountaineering. To help prepare our students for the varied challenges they will encounter in their post graduate career, we involve them to the maximum extent possible in teaching, research planning, public outreach and field activity. While there are no strict requirements for teaching activities, the majority of our students participate in at least some teaching as laboratory assistants for the large, undergraduate-level classes taught by our faculty. Typical demands on a graduate student's time might involve four to eight hours a week of student contact time, and four to six hours a week of preparation and grading. To emphasize the value the university places on graduate student participation in undergraduate teaching, a slightly larger stipend is provided to teaching assistants over research assistants. In

addition to teaching, our graduate students typically become involved in the scientific funding process through exposure to the efforts undertaken by faculty in the securing of research funds through the writing of proposals. Public outreach is also an important element of professional skills, and is emphasized through scientific web site development (required by funding agencies for grants funded in support of scientific research) and other activities (e.g., local science fairs and lectures at surrounding schools) which emphasize contact with the general public. Many of our graduate students include field work as part of their research projects--from scuba-based sampling in Central America to mapping in Tibet--and we offer formal courses and trips to help students develop their skills for this mode of scientific research. Class trips typically focus on (1) modern and ancient sedimentary environments, which explicitly integrates across geology and biology (every 2-3 years, usually in a tropical or subtropical marine setting); (2) sequence stratigraphy of siliciclastics, mostly Meso-Cenozoic; and (3) integrated structure, tectonics, sedimentation, and paleontology, with an eye to reconstructing paleogeography at regional scales (early Paleozoics of Great Basin and Death Valley; Cenozoic of southern California). Students also have opportunities to join faculty in some field campaigns, which include oceanographic cruises.

CURRICULUM

The diversity of intellectual pursuit encompassed by the program places students and faculty into a challenging position when confronted with the need to design a curriculum capable of preparing students of the program to become Ph.D. scientists. Our approach to this challenge is to focus on thinking tools that prepare students for research. Thinking tools embody knowledge of methodologies, awareness of fundamental scientific problems, understanding of current research areas and creative thought when encountering difficult questions. These tools are taught, in part, by a curriculum of courses that delve deeply into various subsets of knowledge covered by the department's scholarly interests. While a student may enter the program with the ultimate goal of writing a dissertation in one area of specialization, courses taken in closely allied areas of specialization are often, by virtue of practicality, all that our curriculum offers. While this may seem detrimental to progress toward specialized research, in practice, the specific subject material used to build the student's base of knowledge and rigorous understanding of thought and methodologies is not strongly correlated with the student's subsequent success. Our curriculum of courses thus focuses on teaching notions of understanding and methodologies that are universal in their application to a wide range of specialized phenomena.

REQUIRED COURSE ACTIVITIES

This time period is divided into two parts, the pre-candidacy phase where the student focuses on course work and general scholarship, and the candidacy phase where the student focuses on specialized research directed to the completion of the dissertation. While flexibility is a distinct advantage of the department's small, intimate setting of graduate study compared to other, larger programs, graduate students are normally expected to progress through their study as follows. Classes are taken through the first two years of residence at the university, and a preliminary examination is taken normally in the spring of the second year. Classes are selected from the department's graduate courses, appropriate upper-level undergraduate courses and courses offered elsewhere in the university. Selection of courses is made through consultation with a faculty advisory committee, which meets regularly through the first two years of the student's residence.

The preliminary examination taken at the end of the second year of residence serves to promote students to candidacy for the Ph.D. The purpose of the examination is to ensure the student's progress in the two goals of graduate study: breadth of fundamental knowledge, and depth of knowledge in a particular area of specialization (chosen normally to be consistent with the student's anticipated dissertation topic).

The preliminary examination has two parts. The written part (taken either in one single sitting or as a series of written tests taken in conjunction with final exams of courses, depending on the particular situation) covers the aspects of knowledge addressed in courses and in the weekly seminars which students are expected to attend. The oral part requires the student to present a research prospectus to a committee of faculty advisors. The topic of this prospectus is normally expected to be the student's planned research activity directed toward the dissertation.

THE DISSERTATION

The Ph.D. degree is awarded to the candidate who has completed a written dissertation, defended it orally to a body of scientists which includes members of the department's faculty (who have the responsibility to vote in favor or against acceptance of the dissertation), and who have submitted the dissertation to the university dissertation office in proper form.

COURSES

Courses are modified from year to year. Students are expected to consult the Schedule of Classes published by the Office of the University Registrar for information regarding courses offered on an infrequent basis. A student's course load is expected to be three to four classes per quarter during the first five quarters (not including Summer Quarter) of residence. Over this period, the student will take a mixture of high level (designated by numbers greater than 30000) and medium level (designated by numbers in the 20000s) classes listed under the department's offerings, and appropriate courses offered by other departments of the university.

GEOPHYSICAL SCIENCES COURSES

GEOS 30200. Introduction to Research in the Geophysical Sciences. 100 Units.

This course is mandatory for all incoming graduate students in the department. Its purpose is to introduce the faculty's current research themes/areas and to familiarize incoming graduate students with research areas they might contemplate for further specialization. Lectures are presented by individual faculty on either 1) a general survey of a research area, or 2) a specialized topic of interest. Student activity varies from year to year and is based on a combination of oral and written presentations.

Instructor(s): Staff Terms Offered: Autumn

GEOS 30500. Topics in the Geophysical Sciences. 100 Units.

This course is offered from time-to-time as a means of covering topics that are generally not covered by regularly offered courses in the curriculum. Students should consult with appropriate faculty regarding opportunities to take this course when the situation arises.

Instructor(s): Staff Terms Offered: Autumn. Not offered 2017-2018

GEOS 31000. Mineralogy. 100 Units.

This course covers structure, chemical composition, stability, and occurrence of major rock-forming minerals.

Labs concentrate on mineral identification with the optical microscope. (L)

Instructor(s): A. Campbell Terms Offered: Winter. Offered every other year.

Equivalent Course(s): GEOS 21000

GEOS 31005. Mineral Science. 100 Units.

This course examines the relationship between the structure of minerals, their chemistry, and their physical properties. Topics include crystallography, defect properties, phase transitions, and analytical tools, followed by detailed study of specific mineral groups.

Instructor(s): A. Campbell Terms Offered: Winter. Offered every other year.

Prerequisite(s): GEOS 21000 or consent of instructor.

Equivalent Course(s): GEOS 21005

GEOS 31200. Physics of the Earth. 100 Units.

This course considers geophysical evidence bearing on the internal makeup and dynamical behavior of the Earth, including seismology (i.e., properties of elastic waves and their interpretation, and internal structure of the Earth); mechanics of rock deformation (i.e., elastic properties, creep and flow of rocks, faulting, earthquakes); gravity (i.e., geoid, isostasy); geomagnetism (i.e., magnetic properties of rocks and history, origin of the magnetic field); heat flow (i.e., temperature within the Earth, sources of heat, thermal history of the Earth); and plate tectonics and the maintenance of plate motions. (L)

Instructor(s): D. Heinz Terms Offered: Spring

Prerequisite(s): Prior calculus and college-level physics courses, or consent of instructor.

Equivalent Course(s): GEOS 21200

GEOS 31205. Introduction to Seismology, Earthquakes, and Near-Surface Earth Seismicity. 100 Units.

This course introduces the mechanics and phenomenology of elastic waves in the Earth and in the fluids near the Earth's surface (e.g., S and P waves in the solid earth, acoustic waves in the ocean and atmosphere). Topics include stress and strain, constitutive equations, elasticity, seismic waves, acoustic waves, theory of refraction/reflection, surface waves, dispersion, and normal modes of the Earth. Phenomenology addressed includes exploration geophysics (refraction/reflection seismology), earthquakes and earthquake source characterization, seismograms as signals, seismometers and seismological networks, and digital seismogram analysis.

Instructor(s): D. Heinz Terms Offered: Winter

Equivalent Course(s): GEOS 21205

GEOS 31400. Thermodynamics and Phase Change. 100 Units.

This course develops the mathematical structure of thermodynamics with emphasis on relations between thermodynamic variables and equations of state. These concepts are then applied to homogeneous and heterogeneous phase equilibrium, culminating in the construction of representative binary and ternary phase diagrams of petrological significance.

Instructor(s): A. Campbell Terms Offered: Spring

Prerequisite(s): MATH 20000-20100-20200 and college-level chemistry and calculus, or consent of instructor.

Equivalent Course(s): GEOS 21400

GEOS 31500. Mineral Physics. 100 Units.

The application of physics at the microscopic level to geologic and geophysical problems. Topics: vibrational, electric and transport properties of minerals.

Instructor(s): D. Heinz

Prerequisite(s): 2 yrs. Math beyond Calculus; 1 year Physical Chemistry or 1 year of both Physics and Chemistry; general Geology, general geophysics and Mineralogy, Petrology or equivalent.

GEOS 32040. Plant Formation in the Galaxy I: From Dust to Planetesimals. 100 Units.

This course examines the physical and chemical processes that operate during the earliest stages of planet formation when dust in a protoplanetary disk aggregates into bodies 1 to 10 km in size. Topics include the physical and chemical evolution of protoplanetary disks, radial transport of dust particles, transient heating events, and the formation of planetesimals. We discuss the evidence of these processes found in meteorites and observed in disks around young stars. Chemical and physical models of dust evolution are introduced, including an overview of basic numerical modeling techniques.

Instructor(s): F. Ciesla

Prerequisite(s): One year of college-level calculus and physics or chemistry, or consent of instructor.

Note(s): This course is offered in alternate years.

Equivalent Course(s): GEOS 22040

GEOS 32050. Plant Formation in the Galaxy II: From Planetesimals to Planets. 100 Units.

This course explores the stage of planet formation during which 1 to 10 km planetesimals accrete to form planets. Topics include heating of planetesimals, models of giant planet formation, the delivery of water to terrestrial planets, and the impact that stellar mass and external environment have on planet formation. We also discuss what processes determine the properties (mass, composition, and orbital parameters) of a planet and its potential for habitability. Basic modeling techniques and current research papers in peer-reviewed journals are also discussed.

Instructor(s): F. Ciesla

Prerequisite(s): Consent of instructor

Equivalent Course(s): GEOS 22050

GEOS 32060. What Makes a Planet Habitable? 100 Units.

This course explores the factors that determine how habitable planets form and evolve. We will discuss a range of topics, from the formation of planets around stars and the delivery of water, to the formation of atmospheres, climate dynamics, and the conditions that allow for the development of life and the evolution of complex life. Students will be responsible for periodically preparing presentations based on papers in peer-reviewed journals and leading the discussion. This course is part of the College Course Cluster program: Climate Change, Culture and Society.

Instructor(s): Edwin Kite Terms Offered: Winter

Equivalent Course(s): ASTR 45900, GEOS 22060

GEOS 32200. Geochronology. 100 Units.

This course covers the duration of planetary differentiation and the age of the Earth (i.e., extinct and extant chronometers); timescales for building a habitable planet (i.e., the late heavy bombardment, the origin of the atmosphere, the emergence of life, and continent extraction); dating mountains (i.e., absolute ages, exposure ages, and thermochronology); the climate record (i.e., dating layers in sediments and ice cores); and dating recent artifacts (e.g., the Shroud of Turin). Prerequisite(s): Background in college-level geology, physics, and mathematics. Equivalent Course(s): GEOS 32200

Prerequisite(s): Background in college-level geology, physics, and mathematics.

Note(s): Equivalent Course(s): GEOS 32200

Equivalent Course(s): GEOS 22200

GEOS 32300. Cosmochemistry. 100 Units.

Chemical, mineralogical, and petrographic classifications of meteorites. Topics include: abundances of the elements, origin of the elements and stellar evolution, the interstellar medium and formation of the solar nebula, condensation of the solar system, chemical fractionations in meteorites and planets, age of the solar system, extinct radionuclides in meteorites, isotope anomalies.

Instructor(s): A. Davis Terms Offered: Winter

Note(s): This course is offered in alternate years.

GEOS 32400. Nucleosynthesis and Its Record in the Solar System and Stars. 100 Units.

The course will cover the environments where the chemical elements are made (supernovae, red giant stars, the Big Bang) and the record of nucleosynthesis in meteorites, planets and other stars (both by remote observation and study of stardust in the laboratory). The course is open to graduate students and advanced undergraduates.

Instructor(s): Andrew Davis Terms Offered: Autumn

GEOS 32500. Topics in Planetary Science. 100 Units.

In this seminar we explore the latest research and results in planetary science. General topics to be discussed include planet formation, planetary evolution, spacecraft exploration, and astrobiology. The specific focus for each class offering will be determined by the interests of the faculty and students. Can be taken multiple times for credit since the specific topic will change each quarter.

Instructor(s): Staff Terms Offered: Winter

GEOS 32600. Topics in Earth Science: The Accretion of Extraterrestrial Matter Throughout Earth's History. 100 Units.

This course will provide a discussion of the nature and variability of extraterrestrial (ET) matter accreted throughout Earth's history that is preserved in the geological record. This record is a rich archive of ET matter whose study not only provides unique insight into the origin and evolution of different Solar System objects but also enables a better understanding of delivery mechanisms. The course will highlight periods of dramatically increased accretion rates and important impact events. This includes events such as the recent Chelyabinsk and Tunguska air blasts, the "global killer" Chicxulub impact 66 Ma ago, the Ordovician meteorite showers, all the way to cataclysmic events that occurred on early Earth. The course will also provide an introduction to related key techniques such as classification with material from the meteorite collection, the identification of impact craters, and the use of tracers of ET material in the geological record.

Instructor(s): P. Heck Terms Offered: Autumn

Prerequisite(s): Background in college-level geology and mineralogy or consent of instructor

Equivalent Course(s): GEOS 22600

GEOS 32700. Analytical Techniques in Geochemistry. 100 Units.

Modern geochemistry requires the use of many sophisticated laboratory instruments. The idea behind GEOS 32700 is to survey the major types of instrumentation used in geochemistry laboratories, including mass spectrometers, electron microscopes, x-ray microanalysis, DNA sequencing, etc. Students should come away from the course with a better appreciation of the inner workings of these instruments rather than treating them as black boxes. As a laboratory portion of the course, students will be trained and do a project using the TESCAN SEM-FIB in the Department of the Geophysical Sciences. The course is open to graduate students and advanced undergraduates.

Instructor(s): Andrew M. Davis & Michael J. Pellin Terms Offered: Autumn

Equivalent Course(s): GEOS 22700

GEOS 33002. Paleobiological Modeling and Analysis-2. 100 Units.

This course is an introduction to multivariate analysis, with emphasis on morphological data and problems in paleontology and evolutionary biology. Topics include: types of data and scales of measurement; data transformations; bivariate analysis; measurement of similarity and difference; clustering; ordination; singular value decomposition; principal component analysis, factor analysis, principal coordinates, correspondence analysis, and other eigenvector methods; and path analysis. Each student will bring a multivariate dataset (not necessarily original) to the course and will write a series of short papers based on analysis of these data. Code written in the R programming language will be supplied for most analyses. Winter quarter, generally in odd numbered years. GEOS 36501 and GEOS 36502 can be taken in either order.

GEOS 33205. Introductory Glaciology. 100 Units.

The fundamentals of glacier and ice-sheet dynamics and phenomenology will be covered in this introductory course (snow and sea ice will be excluded from this course, however may be taken up in the future). Emphasis will be placed on developing the foundation of continuum mechanics and viscous fluid flow as a means of developing the basic equations of glacier deformation, ice-sheet and -shelf flow, basal processes, glacier hydrology, and unstable modes of flow. This course is intended for advanced undergraduate students in physics, math, geophysical sciences, and related fields as well as graduate students considering research in glaciology and climate dynamics. This course is part of the College Course Cluster program: Climate Change, Culture, and Society.

Instructor(s): D. MacAyeal Terms Offered: Winter

Prerequisite(s): Knowledge of vector calculus, linear algebra, and computer programming.

Equivalent Course(s): GEOS 23205

GEOS 33300. Advanced Topics in Climate Dynamics. 100 Units.

The course will go beyond radiative-convective equilibrium and explore spatial and temporal aspects of Earth's climate with a focus on the atmosphere. The goal is to gain a physical understanding of Earth's climate and its past and future changes. We will discuss a range of topics from the surface and atmospheric energy balance, hydrological cycle, atmospheric general circulation and energy transport, climate variability, paleoclimate, natural & anthropogenic climate change. The course will combine lectures of the theory and observations underlying our understanding of Earth's climate with student presentations of peer-reviewed papers. The evaluation will be based on a data-analysis project.

Instructor(s): T. Shaw Terms Offered: Spring

Prerequisite(s): GEOS 24220 or equivalent

GEOS 33600. Chemical Oceanography. 100 Units.

This course explores the chemistry of the ocean system and its variations in space and time. The oceans play an essential role in most (bio)geochemical cycles, interacting in various ways with the atmosphere, sediments, and crust. These interactions can be understood through studying the geochemical and isotopic properties of the ocean, its inputs and outputs, and its evolution as recorded in marine sediments and sedimentary rocks. Topics include: the marine carbon cycle, nutrient cycling, chemical sediments, and hydrothermal systems.

Instructor(s): Clara Blättler Terms Offered: Spring

Prerequisite(s): Completion of one of the following Chemistry Sequences: CHEM 10100-10200-11300 Introductory General Chemistry I-II; Comprehensive General Chemistry III or CHEM 11100-11200-11300 Comprehensive General Chemistry I-II-III or CHEM 12100-12200-12300 Honors General Chemistry I-II-III AND either GEOS 13100 or GEOS 13200.

Equivalent Course(s): ENSC 23600, GEOS 23600

GEOS 33800. Global Biogeochemical Cycles. 100 Units.

This survey course covers the geochemistry of the surface of the Earth, focusing on biological and geological processes that shape the distributions of chemical species in the atmosphere, oceans, and terrestrial habitats. Budgets and cycles of carbon, nitrogen, oxygen, phosphorus, and sulfur are discussed, as well as chemical fundamentals of metabolism, weathering, acid-base and dissolution equilibria, and isotopic fractionation. The course examines the central role that life plays in maintaining the chemical disequilibria that characterize Earth's surface environments. The course also explores biogeochemical cycles change (or resist change) over time, as well as the relationships between geochemistry, biological (including human) activity, and Earth's climate.

Instructor(s): J. Waldbauer Terms Offered: Winter

Prerequisite(s): CHEM 11100-11200 or consent of instructor

Equivalent Course(s): GEOS 23800, ENSC 23800

GEOS 33825. Topics in Microbial Biogeochemistry. 100 Units.

In this seminar we explore the role of microorganisms in biogeochemical cycles. Topics include microbial metabolism, physiology, ecology and evolution in natural habitats, responses to short- and long-term climate change, and coevolution of life and its environment over Earth history. Can be taken multiple times for credit since the specific topic will change each quarter.

Instructor(s): M. Coleman Terms Offered: Autumn, Winter

GEOS 33850. Low Temperature Geochemistry. 100 Units.

This course covers topics related to the geochemistry of Earth's surface, including all its fluid and solid components. Specific emphasis will be placed on stable isotopic tools for understanding modern Earth system processes and the ancient geological record. Seminar format will allow students to choose topics of interest to them and shape the reading and discussion content of the course.

Instructor(s): Clara Blättler Terms Offered: Autumn

Equivalent Course(s): ENSC 33850

GEOS 33900. Environmental Chemistry. 100 Units.

The focus of this course is the fundamental science underlying issues of local and regional scale pollution. In particular, the lifetimes of important pollutants in the air, water, and soils are examined by considering the roles played by photochemistry, surface chemistry, biological processes, and dispersal into the surrounding environment. Specific topics include urban air quality, water quality, long-lived organic toxins, heavy metals, and indoor air pollution. Control measures are also considered. This course is part of the College Course Cluster program: Climate Change, Culture, and Society.

Instructor(s): A. Colman, D. Archer Terms Offered: Autumn

Prerequisite(s): CHEM 11101-11201 or equivalent, and prior calculus course

Equivalent Course(s): ENST 23900, ENSC 23900, GEOS 23900

GEOS 34200. Fundamentals of Geophysical Fluid Dynamics. 100 Units.

This course is an introduction to geophysical fluid dynamics for upper-level undergraduates and starting graduate students. The topics covered will be the equations of motion, the effects of rotation and stratification, shallow water systems and isentropic coordinates, vorticity and potential vorticity, and simplified equations for the ocean and atmosphere.

Instructor(s): D. Abbot Terms Offered: Winter

Prerequisite(s): Knowledge of vector calculus, linear algebra, or consent of instructor

Equivalent Course(s): GEOS 24200

GEOS 34220. Climate Foundations. 100 Units.

This course introduces the basic physics governing the climate of planets, the Earth in particular but with some consideration of other planets. Topics include atmospheric thermodynamics of wet and dry atmospheres, the hydrological cycle, blackbody radiation, molecular absorption in the atmosphere, the basic principles of radiation balance, and diurnal and seasonal cycles. Students solve problems of increasing complexity, moving from pencil-and-paper problems to programming exercises, to determine surface and atmospheric temperatures and how they evolve. An introduction to scientific programming is provided, but the fluid dynamics of planetary flows is not covered. This course is part of the College Course Cluster program: Climate Change, Culture and Society. (L)
Instructor(s): Liz Moyer
Terms Offered: Autumn
Prerequisite(s): Prior physics course (preferably PHYS 13300 and 14300) and knowledge of calculus required; prior geophysical sciences course not required.
Note(s): Prior programming experience helpful but not required.
Equivalent Course(s): GEOS 24220

GEOS 34230. Geophysical Fluid Dynamics: Foundations. 100 Units.

This course is for incoming graduate students in physical sciences intending to take further courses in geophysical fluid dynamics, fluid dynamics, condensed matter physics, and other areas requiring this fundamental skill set. It sets the stage for follow-on courses that present the detail of the behavior of fluids and continuums in geophysical, physical, chemical, and other settings. The material may be a student's first contact with continuum mechanics or a remedial or review for students who have previously taken similar courses. Topics include description of material properties in a continuum, including displacement, velocity, and strain rate; scalar, vector, and tensor properties of continuums, strain, strain rate, and stress; derivations and understanding of mass, momentum, and energy conservation principles in a continuum; applications of conservation principles to simple rheological idealizations, including ideal fluids and potential flow, viscous fluids and Navier-Stokes flow, elasticity and deformation; introductory asymptotic analysis, Reynolds number; heat transfer by conduction and convection, convective instability, Rayleigh number; fluids in gravitational fields, stratification, buoyancy; elliptic, parabolic, and hyperbolic partial differential equations, typical properties of each. Prerequisite(s): Vector calculus, linear algebra, advanced classical mechanics, basic knowledge of computing. Undergrads who take this course should intend to complete a second fluid-dynamics course in Geophysical Sciences.
Instructor(s): D. MacAyeal
Terms Offered: Autumn
Prerequisite(s): Vector calculus, linear algebra, advanced classical mechanics, basic knowledge of computing.
Undergrads who take this course should intend to complete a second fluid-dynamics course in Geophysical Sciences.
Equivalent Course(s): GEOS 24230

GEOS 34240. Geophysical Fluid Dynamics: Rotation and Stratification. 100 Units.

This course is an introduction to geophysical fluid dynamics for upper-level undergraduates and starting graduate students. The topics covered will be the equations of motion, the effects of rotation and stratification, shallow water systems and isentropic coordinates, vorticity and potential vorticity, and simplified equations for the ocean and atmosphere.
Instructor(s): T. Shaw
Terms Offered: Winter
Prerequisite(s): PQ: GEOS 24230 or equivalent; Knowledge of mechanics (PHYS 13100 or equivalent), thermodynamics (PHYS 19700 or equivalent), vector calculus and linear algebra (MATH 20000-20100-20200 or equivalent)
Equivalent Course(s): GEOS 24240

GEOS 34250. Geophysical Fluid Dynamics: Understanding the Motions of the Atmosphere and Oceans. 100 Units.

This course is part of the atmospheres and oceans sequence (GEOS 24220, 24230, 24240, 24250) and is expected to follow Geophysical Fluid Dynamics: Rotation and Stratification (GEOS 24240). The course demonstrates how the fundamental principles of geophysical fluid dynamics are manifested in the large-scale circulation of the atmosphere and oceans and their laboratory analogs. Topics include: balance of forces and the observed structure of the atmospheric and oceanic circulations, statistical description of the spatially and temporally varying circulation, theory of Hadley circulation, waves in the atmosphere and oceans, baroclinic instability, wind-driven ocean circulation.
Instructor(s): N. Nakamura
Terms Offered: Spring
Prerequisite(s): GEOS 24230 and 24240, or consent of the instructor. Knowledge of vector calculus, linear algebra, and ordinary differential equations is assumed.
Equivalent Course(s): GEOS 24250

GEOS 34260. Radiation. 100 Units.

Develops the theory of radiation emission, absorption, and scattering by planetary atmospheres. Emphasis on the derivation and solution of the radiative transfer equation for plane parallel, horizontally homogeneous atmospheres.

Instructor(s): D. Abbot

Prerequisite(s): Advanced undergraduate level knowledge of electromagnetic theory, atomic structure, and differential equations.

Equivalent Course(s): GEOS 24260

GEOS 34300. Paleoclimatology. 100 Units.

This class will cover the theory and reconstruction of the evolution of Earth's climate through geologic time. After reviewing fundamental principles that control Earth's climate, the class will consider aspects of the climate reconstructions that need to be explained theoretically, such as the faint young sun paradox, snowball Earth episodes, Pleistocene glacial / interglacial cycles, and long-term Cenozoic cooling. Then we will switch to a temporal point of view, the history of Earth's climate as driven by plate tectonics and biological evolution, and punctuated by mass extinctions. This will allow us to place the theoretical ideas from the first part of the class into the context of time and biological progressive evolution.

Terms Offered: Winter

Prerequisite(s): One quarter of chemistry

Note(s): D. Archer

Equivalent Course(s): GEOS 24300

GEOS 34400. Topics in Geophysical Fluid Dynamics. 100 Units.

This course teaches science and art of numerical modeling at an elementary level. Classroom discussions on mathematical principles will be supplemented by a series of actual coding assignments. (Command of a programming language is assumed; this is not a course on programming.) It is our goal that at the end of the course each student will have coded a working copy of shallow water model on a rotating sphere (and do science with it). Prereq: Calculus, working knowledge of Fourier Transform and of a programming language (C, Fortran, IDL, etc.), access to a computer with a compiler and runtime environment. No previous experience in fluid dynamics is necessary, although this course alone does not fully prepare one to become a fluid dynamicist.

Instructor(s): N. Nakamura

GEOS 34530. Turbulence and Transport Processes in the Atmosphere and Oceans. 100 Units.

The atmosphere and oceans exhibit non-linear turbulent motions on a wide range of scales. Yet introductory classes in atmosphere and ocean dynamics focus almost exclusively on linear theories. While there is undoubtedly much to learn from linear theory, statistical descriptions of turbulent flows provide a valuable perspective from a different angle. In this advanced graduate course we will discuss the theory of 3-dimensional, 2-dimensional and quasi-geostrophic turbulence, as well as the role of turbulent motions for the transport of properties in the atmosphere and ocean. We will also discuss the wave-turbulence crossover, and eddy-mean-flow interactions, thus connecting back to linear theories. The format of the course will be a mixture of lectures and student-led paper discussions.

Instructor(s): M. Jansen Terms Offered: Autumn

Prerequisite(s): GEOS 24230 and GEOS 24240 or equivalent; Knowledge of mechanics (PHYS 13100 or equivalent), vector calculus and linear algebra (MATH 20000-20100-20200 or equivalent). Knowledge of the basics of statistics/stochastics is also expected.

GEOS 34550. Ocean Circulation. 100 Units.

In this course we discuss the dynamics of the global-scale ocean circulation, which plays an important role in the climate system via the transport and storage of heat and carbon. Topics include the wind-driven ocean gyres, the ocean's thermocline, the turbulent Antarctic Circumpolar Current as a critical connector of the major ocean basins, as well as the meridional overturning circulation. The course aims to promote a fundamental understanding of ocean dynamics, rather than a purely empirical treatment, and hence builds on the fluid dynamical equations that govern the oceanic motions. The structure of the course includes a combination of lectures, in-class exercises, and discussion of material read by the students at home. The course is suitable for graduate students and upper-level undergraduates.

Instructor(s): Malte Jansen Terms Offered: Spring

Prerequisite(s): Prerequisite(s): GEOS 24230, or consent of instructor. Knowledge of vector calculus, linear algebra, and ordinary differential equations is assumed. GEOS 24240 or equivalent is recommended but not required.

Equivalent Course(s): GEOS 24550

GEOS 34705. Energy: Science, Technology, and Human Usage. 100 Units.

This course covers the technologies by which humans appropriate energy for industrial and societal use, from steam turbines to internal combustion engines to photovoltaics. We also discuss the physics and economics of the resulting human energy system: fuel sources and relationship to energy flows in the Earth system; and modeling and simulation of energy production and use. Our goal is to provide a technical foundation for students interested in careers in the energy industry or in energy policy. Field trips required to major energy converters (e.g., coal-fired and nuclear power plants, oil refinery, biogas digester) and users (e.g., steel, fertilizer production). This course is part of the College Course Cluster program: Climate Change, Culture and Society.

Instructor(s): E. Moyer

Prerequisite(s): Knowledge of physics or consent of instructor.

Note(s): Not offered in Spring 2019. See GEOS 24750/ENSC 21150.

Equivalent Course(s): GEOS 24705, ENSC 21100, ENST 24705

GEOS 34750. Humans in the Earth System. 100 Units.

Human activities now have global-scale impact on the Earth, affecting many major biogeochemical cycles. One third of the Earth's surface is now used for production of food for humans, and CO₂, the waste product of human energy use, now substantially affects the Earth's radiative balance. This course provides a framework for understanding humanity as a component of Earth system science. The course covers the Earth's energy flows and cycles of water, carbon, and nitrogen; their interactions; and the role that humans now play in modifying them. Both agriculture and energy technologies can be seen as appropriation of natural energy flows, and we cover the history over which human appropriations have become globally significant. The course merges geophysical and biological sciences and engineering, and includes lab sessions and field trips to agriculture, water management, and energy facilities to promote intuition. One year of university-level science is recommended.

Terms Offered: Spring

Equivalent Course(s): GEOS 24750, ENSC 21150, ENST 24750

GEOS 35100. Data Analysis for the Geophysical Sciences. 100 Units.

A graduate-level introduction to probability, modeling, and data analysis. Though some emphasis is given to paleontological problems, the goal is to keep approaches sufficiently general that they should be relevant to students across the geophysical sciences as well as evolutionary biology. Required work includes coding exercises and a term project based on original research.

Instructor(s): M. Foote Terms Offered: Spring

GEOS 35400. Intro to Numerical Techniques for Geophysical Sciences. 100 Units.

This class provides an introduction to different types of numerical techniques used in developing models used in geophysical science research. Topics will include how to interpolate and extrapolate functions, develop functional fits to data, integrate a function, or solve partial differential equations. Students are expected to have some familiarity with computers and programming-programming methods will not be discussed in detail. While techniques will be the focus of the class, we will also discuss the planning needed in developing a model as well as the limitations inherent in such models.

Instructor(s): Ciesla, F. Terms Offered: Winter

Equivalent Course(s): GEOS 25400

GEOS 35500. Mathematical Methods for the Earth Sciences. 100 Units.

This course is intended to be a brief introduction to mathematical methods that may be of use in the Earth Sciences. The focus will be on building physical intuition and practical problem solving. Students may solve problems analytically, or write numerical codes to solve them.

Instructor(s): D. Abbot Terms Offered: Spring

GEOS 35900. Physics of Planetary Interiors. 100 Units.

This course considers the physical processes governing the interior structure and evolution of planets, both those orbiting the Sun and exoplanets. Topics include an introduction to condensed matter physics relevant to planet interiors; properties of planetary materials; observational constraints; planet modeling; thermal histories; differentiation and core formation; connection to planetary atmospheres; and magnetic field generation.

Instructor(s): Leslie Rogers Terms Offered: Winter

Prerequisite(s): Open to third- and fourth-year undergraduate students majoring in Astrophysics, Physics or the Geophysical Sciences, or students who have completed two quarters of Calculus.

GEOS 36000. Morphometrics. 100 Units.

This graduate-level course serves as an introduction to the field of morphometrics (the analysis of organismal shape). Quantitative exploratory and confirmatory techniques involving both traditional (length-based) and geometric (landmark-based) summaries of organismal shape are introduced in a series of lectures and practical exercises. Emphasis is placed on the application of morphometric methods to issues such as (but not restricted to) quantification of intraspecific variability, interspecific differences, disparity, ontogenetic growth patterns (allometry), and phylogenetic changes in morphology. Relevant statistical and algebraic operations are explained assuming no prior background. Students are required to bring personal laptop computers, and are expected to acquire and analyze their own data sets during the course.

Instructor(s): M. Webster Terms Offered: Winter

Equivalent Course(s): EVOL 36700

GEOS 36050. Models of Morphological Evolution. 100 Units.

Over the past 30 years the study of morphological evolution, from inference of evolutionary process to understanding correlated trait changes, has increasingly relied on phylogenetic approaches. This is due to the realization that species may exhibit similar traits due to shared evolutionary history as much as due to similar adaptive responses to other factors. The field of phylogenetic comparative methods is rapidly expanding. This graduate course will cover basic and advanced models of morphological character evolution that underlie comparative methods, as well as the statistical models themselves. Topics covered in this class will span: Brownian motion as a model of quantitative trait evolution; Independent contrasts and evolutionary regressions; Measuring phylogenetic signal; Alternative models of quantitative trait evolution - early bursts, Ornstein-Uhlenbeck processes, and multivariate data; Discrete traits, Markov processes and the threshold model; Phylogenetic analogues of traditional comparative methods (e.g., ANOVA, PCA). Lectures will cover theory behind concepts but students will also be expected to bring laptops to class so as to write code to simulate data and fit statistical models. All coding will be done in the R statistical language.
Instructor(s): G. Slater
Terms Offered: Autumn

GEOS 36100. Phylogenetics and the Fossil Record. 100 Units.

Phylogenies are branching diagrams that reflect evolutionary relationships. In addition to providing information on the history of life, phylogenies are fundamental to modern methods for studying macroevolutionary and macroecological pattern and process. In the biological sciences, phylogenies are most often inferred from genetic data. In paleobiology, phylogenies can only be inferred from the fossilized remains of morphological structures, and collecting and analyzing morphological data present a different set of challenges. In this course, students will study both traditional and state-of-the-art approaches to inferring phylogenies in the fossil record, from data collection to interpretation. Lectures will explore the statistical underpinnings of phylogenetic methods, as well as their practical implementation in commonly used software. Topics will include: identifying and coding morphological characters, models of morphological evolution, parsimony, maximum likelihood, and bayesian methods, supertree approaches, and integrating time into phylogenetic inference. Fifty percent of the final assessment will come from a research paper due at the end of the quarter.
Instructor(s): G. Slater
Terms Offered: Autumn. Course is offered every other year. Not offered in 2019-20
Prerequisite(s): BIOS 20197 or equivalent.
Equivalent Course(s): GEOS 26100

GEOS 36200. Evolution and the Fossil Record. 100 Units.

This course serves as an introduction to the practical and theoretical issues involved in obtaining primary systematic data from the fossil record, and demonstrates the criticality of such data to the rigorous documentation and interpretation of evolutionary patterns. Precise topics of the seminar discussions will vary from year to year depending on relevance to student research projects and interest, but are likely to focus on issues such as (but not restricted to) practical techniques in specimen-based paleontology (including fossil preparation and photography), species delimitation (including species concepts, variability, and ecophenotypy), stratigraphic/geographic range determination (including biostratigraphic correlation), phylogeny reconstruction (including the relevance of stratigraphic data), and the importance of these topics to broader macroevolutionary issues such as diversity/disparity dynamics and the determination of evolutionary trends, rates and processes.
Equivalent Course(s): EVOL 46200

GEOS 36300. Invertebrate Paleobiology and Evolution. 100 Units.

This course provides a detailed overview of the morphology, paleobiology, evolutionary history, and practical uses of the invertebrate and microfossil groups commonly found in the fossil record. Emphasis is placed on understanding key anatomical and ecological innovations within each group and interactions among groups responsible for producing the observed changes in diversity, dominance, and ecological community structure through evolutionary time. Labs supplement lecture material with specimen-based and practical application sections. An optional field trip offers experience in the collection of specimens and raw paleontological data. Several "Hot Topics" lectures introduce important, exciting, and often controversial aspects of current paleontological research linked to particular invertebrate groups. (L)
Instructor(s): M. Webster
Terms Offered: Autumn
Prerequisite(s): GEOS 13100 and 13200, or equivalent. Students majoring in Biological Sciences only; Completion of the general education requirement in the Biological Sciences, or consent of instructor.
Equivalent Course(s): EVOL 32400, BIOS 23261, GEOS 26300

GEOS 36600. Geobiology. 100 Units.

Geobiology seeks to elucidate the interactions between life and its environments that have shaped the coevolution of the Earth and the biosphere. The course will explore the ways in which biological processes affect the environment and how the evolutionary trajectories of organisms have in turn been influenced by environmental change. In order to reconstruct the history of these processes, we will examine the imprints they leave on both the rock record and on the genomic makeup of living organisms. The metabolism and evolution of microorganisms, and the biogeochemistry they drive, will be a major emphasis.
Instructor(s): M. Coleman, J. Waldbauer
Prerequisite(s): GEOS 13100-13200-13300 or college-level cell & molecular biology
Equivalent Course(s): ENSC 24000, GEOS 26600

GEOS 36650. Environmental Microbiology. 100 Units.

The objective of this course is to understand how microorganisms alter the geochemistry of their environment. The course will cover fundamental principles of microbial growth, metabolism, genetics, diversity, and ecology, as well as methods used to study microbial communities and activities. It will emphasize microbial roles in elemental cycling, bioremediation, climate, and ecosystem health in a variety of environments including aquatic, soil, sediment, and engineered systems.

Instructor(s): M. Coleman Terms Offered: Autumn

Prerequisite(s): CHEM 11100-11200 and BIOS 20186 or BIOS 20197 or BIOS 20198

Equivalent Course(s): GEOS 26650, ENSC 24500

GEOS 36700. Taphonomy. 100 Units.

Lecture and research course on patterns and processes of fossilization, including rates and controls of soft tissue decomposition, post mortem behavior of skeletal hard parts, concentration and burial of remains, scales of time averaging, and the net spatial and compositional fidelity of (paleo)biologic information, including trends across environments and evolutionary time. Offered alternate years.

Instructor(s): S. Kidwell

Equivalent Course(s): EVOL 31800

GEOS 36800. Macroevolution. 100 Units.

Patterns and processes of evolution above the species level, in both recent and fossil organism. A survey of the current literature, along with case studies.

Instructor(s): D. Jablonski Terms Offered: Spring

Equivalent Course(s): EVOL 31700

GEOS 36900. Topics in Paleobiology. 100 Units.

In this seminar we investigate paleobiological or multidisciplinary topics of current interest to students and faculty. Previous subjects include the origin of phyla, historical and macro-ecology, the stratigraphic record and evolutionary patterns, and climate and evolution.

Instructor(s): D. Jablonski, S. Kidwell, T. Price Terms Offered: Autumn

Equivalent Course(s): ECEV 36900, EVOL 31900

GEOS 36905. Topics in Conservation Paleobiology. 100 Units.

Paleobiological data from very young sedimentary records, including skeletal 'death assemblages' actively accumulating on modern land surfaces and seabeds, provide unique information on the status of present-day populations, communities, and biomes and their responses to natural and anthropogenic stress over the last few decades to millennia. This course on the emerging discipline of 'conservation paleobiology' uses weekly seminars and individual research projects to introduce how paleontologic methods, applied to modern samples, can address critical issues in the conservation and restoration of biodiversity and natural environments, including such basic questions as 'has a system changed, and if so how and when relative to suspected stressors?'. The course will include hands-on experience, either in the field or with already-collected marine benthic samples, to assess societally relevant ecological change in modern systems over time-frames beyond the reach of direct observation. Enrollment limited.

Instructor(s): S. Kidwell Terms Offered: Winter

Prerequisite(s): Additional Notes For undergraduates: completion of GEOS 13100-13200-13300 or equivalent or completion of a 20000 level course in Paleontology.

Equivalent Course(s): GEOS 26905, EVOL 36905

GEOS 38000. Introduction to Structural Geology. 100 Units.

This course explores the deformation of the Earth materials primarily as observed in the crust. We emphasize stress and strain and their relationship to incremental and finite deformation in crustal rocks, as well as techniques for inferring paleostress and strain in deformed crustal rocks. We also look at mesoscale to macroscale structures and basic techniques of field geology in deformed regions.

Instructor(s): D. Rowley Terms Offered: Winter

Prerequisite(s): GEOS 13100

Note(s): This course is offered in alternate years.

Equivalent Course(s): GEOS 28000

GEOS 38100. Global Tectonics. 100 Units.

This course reviews the spatial and temporal development of tectonic and plate tectonic activity of the globe. We focus on the style of activity at compressive, extensional, and shear margins, as well as on the types of basin evolution associated with each. (L)

Instructor(s): D. Rowley Terms Offered: Autumn

Prerequisite(s): GEOS 13100 or consent of instructor

Note(s): This course is offered in alternate years.

Equivalent Course(s): GEOS 28100

GEOS 38300. Principles of Stratigraphy. 100 Units.

This course introduces principles and methods of stratigraphy. Topics include facies analysis, physical and biostratigraphic correlation, and development and calibration of the geologic time scale. We also discuss controversies concerning the completeness of the stratigraphic record; origin of sedimentary cycles; and interactions between global sea level, tectonics, and sediment supply. (L)

Instructor(s): S. Kidwell Terms Offered: Autumn

Prerequisite(s): GEOS 13100-13200 or equivalent required; GEOS 23500 and/or 28200 recommended

Note(s): This course is offered in alternate years.

Equivalent Course(s): GEOS 28300

GEOS 38400. Topics in Stratigraphy and Biosedimentology. 100 Units.

Seminar course using the primary literature and/or a field problem. Topic selected from the rapidly evolving fields of sequence stratigraphy, basin analysis, and animal sediment relationships.

Equivalent Course(s): EVOL 41500

GEOS 39001. Field Course in Geology. 100 Units.

Students in this course visit classic locations to examine a wide variety of geological environments and processes, including active tectonics, ancient and modern sedimentary environments, and geomorphology.

Prerequisite(s): GEOS 13100-13200 and consent of instructor

Note(s): Interested students should contact the departmental counselor.

Equivalent Course(s): GEOS 29001

GEOS 39002. Field Course in Modern and Ancient Environments. 100 Units.

This course uses weekly seminars during Winter Quarter to prepare for a one-week field trip over spring break, where students acquire experience with sedimentary rocks and the modern processes responsible for them. Destinations vary; past trips have examined tropical carbonate systems of Jamaica and the Bahamas and subtropical coastal Gulf of California. We usually consider biological, as well as physical, processes of sediment production, dispersal, accumulation, and post-depositional modification.

Instructor(s): S. Kidwell, M. LaBarbera Terms Offered: Winter

Note(s): Organizational meeting and deposit usually required in Autumn Quarter; interested students should contact an instructor in advance.

Equivalent Course(s): GEOS 29002, ENSC 29002

GEOS 39501. Practicum I: Geophysical Sciences. 100 Units.

A practicum in the Geophysical Sciences. Note that this is the first of a two quarter sequence that must be taken in order.

Instructor(s): Moyer Terms Offered: Autumn

GEOS 39502. Practicum II: Geophysical Sciences. 100 Units.

A practicum in the Geophysical Sciences. Note that this is the second of a two quarter sequence that must be taken in order.

Instructor(s): Moyer Terms Offered: Winter

Prerequisite(s): GEOS 39501

GEOS 39600. Science Writing Practicum. 100 Units.

Writing is fundamental to science and to the careers of scientists -- even a brilliant scientific idea has no impact if no one understands the paper describing it. In this practicum, students will learn to write papers that communicate their work clearly to the scientific community, that attract citations, and that are compelling even for experts from other fields and members of the general public. The course is intended for students engaged in research and at the stage of working on a paper intended for publication in a peer-reviewed journal, and students are expected to bring their work in progress. Students will learn to evaluate their writing to anticipate its effectiveness with different audiences, and to organize and revise it for maximal impact, using techniques from academic writing and science journalism and insights from cognitive theories of reading. Students from diverse backgrounds will read and critique one another's work weekly, learning to overcome barriers to communication between different communities of scholars and the public. We will also discuss techniques for effective science graphics and oral presentations. The course culminates in a practicum research presentation and production by each student of a final or near-final draft of a manuscript for submission.

Instructor(s): Jeff McMahon Terms Offered: Spring

Prerequisite(s): Consent only. Priority enrollment is given to students in UChicago's NRT research traineeship program on computational environmental sciences (nrt.geosci.uchicago.edu), PI Elisabeth Moyer. Write to jmcmahon@uchicago.edu to request consent to enroll.

Equivalent Course(s): GEOS 29600

GEOS 39650. Environmental Data Science Practicum I. 100 Units.

Research in climate and environmental sciences is increasingly focused on analyses of complex spatio-temporal data, with satellite observations and detailed numerical simulations providing datasets whose size may reach the Tb range. Relevant research questions also increasingly span disciplinary boundaries. This project-based course is intended to provide students with a structured research experience in working with complex environmental data on a project that should lead to publishable science. The course is the first course of a two-course sequence with GEOS 39660 to be taken in the Spring. Students enroll individually and then form interdisciplinary groups. During the two quarters, groups will work on research projects with guidance from University faculty members and external researchers. Lectures and exercises cover topics in statistics, computer science, data science, and research practices. The course is a requirement for Ph.D. students participating in the University's NSF Research Traineeship program in Computational Training for Energy and Environmental Sciences but enrollment is open to all graduate students, space permitting. Students enrolled in GEOS 39660 for Spring quarter are encouraged to enroll concurrently in GEOS 39600, Science Writing Practicum, which will guide them through completion of a manuscript for submission.

Instructor(s): Elisabeth Moyer/Staff Terms Offered: Winter

Prerequisite(s): Experience in data analysis and programming typical of 2nd-year or advanced 1st-year Ph.D. students in physical, biological, and social sciences.

GEOS 39660. Environmental Data Science Practicum II. 100 Units.

This project-based course is a continuation of GEOS 39650, Environmental Data Science Practicum I. The two-course sequence is intended to provide students with a structured research experience in working with complex environmental data on a project that should lead to publishable science. Students enroll individually and then work in interdisciplinary groups on research projects with guidance from University faculty members and external researchers. Lectures and exercises cover topics in statistics, computer science, data science, and research practices. The course is a requirement for Ph.D. students participating in the University's NSF Research Traineeship program in Computational Training for Energy and Environmental Sciences but enrollment is open to all graduate students, space permitting. Students enrolled in GEOS 39660 are encouraged to enroll concurrently in GEOS 39600, Science Writing Practicum, which will guide them through completion of a manuscript for submission.

Instructor(s): Elisabeth Moyer/Staff Terms Offered: Spring

Prerequisite(s): Pre-requisite is GEOS 39650.

GEOS 39800. Reading and Research in the Geophysical Sciences for the Maste. 300.00 Units.

An essay or formal thesis will be required.

Instructor(s): Staff Terms Offered: Autumn Spring Summer Winter

Prerequisite(s): admission to grad status

GEOS 49700. Rdg/Rsch: Geophysical Sciences. 300.00 Units.

GEOS 49700-49799. Topics available include, but are not limited to: Mineralogy, Petrology, Geophysics, High Pressure Geophysics, Geodynamics, Volcanology, Cosmochemistry, Geochemistry, Atmospheric Dynamics, Paleoclimatology, Physical Oceanography, Chemical Oceanography, Paleooceanography, Atmospheric Chemistry, Fluid Dynamics, Glaciology, Climatology, Radiative Transfer, Cloud Physics, Morphometrics, Phylogeny, Analytical Paleontology, Evolution, Taphonomy, Macroevolution, Paleobiology, Aktuopaleontology, Paleobotany, Biomechanics, Paleoecology, Tectonics, Stratigraphy.

Instructor(s): Staff Terms Offered: Summer, Autumn, Winter, Spring

Prerequisite(s): admission to Ph.D. candidacy

GEOS 49710. Advanced Research: Mineralogy. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

GEOS 49711. Advanced Research: Petrology. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

GEOS 49712. Advanced Research: Geophysics. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

GEOS 49713. Advanced Research: High Pressure Geophysics. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

GEOS 49714. Advanced Research: Geodynamics. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

GEOS 49716. Advanced Research: Geochemistry. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

GEOS 49718. Advanced Research: Volcanology. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

GEOS 49723. Advanced Research: Cosmochemistry. 300.00 Units.

Individualized study focused on Ph.D. research in the geophysical sciences

- GEOS 49732. Advanced Research: Atmospheric Dynamics. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49733. Advanced Research: Paleoceanography. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49735. Advanced Research: Physical Oceanography. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49736. Advanced Research: Chemical Oceanography. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49737. Advanced Research: Cloud Physics. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences.
- GEOS 49740. Advanced Research: Atmospheric Chemistry. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49742. Advanced Research: Fluid Dynamics. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49743. Advanced Research: Glaciology. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49746. Advanced Research: Climatology. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49748. Advanced Research: Radiative Transfer. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49749. Advanced Research: Paleoclimatology. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49760. Advanced Research: Morphometrics. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49761. Advanced Research: Phylogeny. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49765. Advanced Research: Analytical Paleontology. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49766. Advanced Research: Evolution. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49767. Advanced Research: Taphonomy. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49768. Advanced Research: Macroevolution. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49769. Advanced Research: Paleobiology. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49770. Advanced Research: Aktuopaleontology. 300.00 Units.**
- GEOS 49771. Advanced Research: Paleobotany. 300.00 Units.**
- GEOS 49772. Advanced Research: Biomechanics. 300.00 Units.**
- GEOS 49773. Advanced Research: Paleocology. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49781. Advanced Research: Tectonics. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49783. Advanced Research: Stratigraphy. 300.00 Units.**
Individualized study focused on Ph.D. research in the geophysical sciences
- GEOS 49900. Post Ph. D. Research: Geosci. 300.00 Units.**
Instructor(s): Staff Terms Offered: Summer, Autumn, Winter, Spring

GEOS 50000. Theory and Practice of Science Education. 300.00 Units.

In this seminar, students examine their work as teaching assistants through activities that include self-reflection; investigating relevant educational literature; and engaging in in-depth discussions about their own teaching and learning. Readings and discussion topics include questioning techniques, learning theory, cooperative learning, growth mindset, metacognition, developing relationships with students, equity, and differentiation. Students will try out new ideas each week in their learning teams and report their results in class. In many cases, students provide guidance to one another regarding managing issues that typically arise in their learning teams. The seminar is intended for graduate students who are serving as teaching assistants for the first time, and is typically taken in the same quarter in which the student begins teaching.

Instructor(s): Brent Barker Terms Offered: Autumn Spring Winter. This course will be offered for 0 credit hours in the 2019-2020 academic year.

Prerequisite(s): Undergraduates serving as course assistants may enroll with instructor consent.

Note(s): Graduate students in Astronomy and Astrophysics and Geophysical Sciences enroll in ASTR 50000 the first quarter in which they will teach.

Equivalent Course(s): ASTR 50000

GEOS 70000. Advanced Study: Geophysical Sciences. 300.00 Units.

Advanced Study: Geophysical Sciences



DEPARTMENT OF MATHEMATICS

Chair

- Kevin Corlette

Professors

- Laszlo Babai, Computer Science and Mathematics
- Guillaume Bal, Statistics and Mathematics
- Alexander A. Beilinson
- Danny Calegari
- Francesco Calegari
- Kevin Corlette
- Jack D. Cowan
- Marianna Csörnyei
- Vladimir Drinfeld
- Todd Dupont, Computer Science and Mathematics
- Matthew Emerton
- Alex Eskin
- Benson Farb
- Robert A. Fefferman
- Victor Ginzburg
- Denis Hirschfeldt
- Kazuya Kato
- Carlos E. Kenig
- Steven Lalley, Statistics and Mathematics
- Gregory Lawler, Mathematics and Statistics
- J. Peter May
- Andre Neves
- Bao Châu Ngô
- Madhav Vithal Nori
- Alexander Razborov, Mathematics and Computer Science
- Luis Silvestre
- Charles Smart
- Panagiotis Souganidis
- Sidney Webster
- Shmuel Weinberger
- Amie Wilkinson
- Robert Zimmer

Associate Professors

- Roger Lee
- Maryanthe Malliaris

Assistant Professors

- Sebastian Hurtado-Salazar
- Dana Mendelson
- Nikita Rozenblyum
- Daniil Rudenko

Instructors

- Guher Camliyurt
- Mark Cerenzia
- DaRong Cheng
- Andrea Dotto
- Chenjie Fan

- Pedro Gasper
- Nate Harman
- Vivian Healey
- Christopher Henderson
- Kornelia Hera
- Trevor Hyde
- Kasia Jankiewicz
- Lien-Yung Kao
- Asaf Katz
- Brian Lawrence
- Gus Lonergan
- Akhil Mathew
- Henrik Matthieson
- Marco Mendez-Guaraco
- Cornelia Mihaila
- Lucia Mocz
- Abdalla Dali Nimer
- Lue Pan
- Wenyu Pan
- Antoni Rangachev
- Kevin Schreve
- Beniada Shabani
- Danny Shi
- Caroline Terry
- Khadim War
- Disheng Xu
- Zihui Zhao

Emeritus Faculty

- Jonathan Alperin
- Spencer Bloch
- George Glauberman
- Robert Kottwitz
- Norman Lebovitz
- Matam P. Murthy
- Niels Nygaard
- Melvin G. Rothenberg
- L. Ridgway Scott, Computer Science and Mathematics
- Robert I. Soare, Computer Science and Mathematics

The Department of Mathematics (<http://www.math.uchicago.edu>) provides a comprehensive education in mathematics which takes place in a stimulating environment of intensive research activity. The graduate program includes both pure and applied areas of mathematics. Ten to fifteen graduate courses are offered every quarter. Several seminars take place every afternoon. There is an active visitors program with mathematicians from around the world coming for periods from a few days to a few months. There are four major lecture series each year: the Adrian Albert Lectures in Algebra, the Antoni Zygmund and Alberto Calderón Lectures in Analysis, the Unni Namboodiri Lectures in Topology, and the Charles Amick Lectures in Applied Mathematics. The activities of the department take place in Eckhart and Ryerson Halls. The Departments of Mathematics, Computer Science and Statistics have several joint appointments, and they coordinate their activities.

GRADUATE DEGREES IN MATHEMATICS

The graduate program of the Department of Mathematics is oriented towards students who intend to earn a Ph.D. in mathematics on the basis of work done in mathematics. The Department also offers the degree of Master of Science in mathematics, which is acquired as the student proceeds on to the Ph.D. degree. Students are not admitted with the Master of Science degree as their final objective. In addition, the department offers a separate Master of Science in Financial Mathematics degree program which is taught in the evenings. See the program listing for Financial Mathematics for more information.

The divisional requirements for these degrees can be found in the section on the Physical Sciences Division in these *Announcements*. Otherwise, the requirements are as follows.

THE DEGREE OF MASTER OF SCIENCE

The candidate must pass, the nine basic first year graduate courses in the areas of

Algebra		
MATH 32500	Algebra I	100
MATH 32600	Algebra II	100
MATH 32700	Algebra III	100
Analysis		
MATH 31200	Analysis I	100
MATH 31300	Analysis II	100
MATH 31400	Analysis III	100
Topology		
MATH 31700	Topology and Geometry I	100
MATH 31800	Topology and Geometry II	100
MATH 31900	Topology and Geometry III	100

At the beginning of each quarter a placement exam is offered for each of the courses above. Students who pass the exam can place out of the course, but must take another course in a related area.

THE DEGREE OF DOCTOR OF PHILOSOPHY

For admission to candidacy for the Doctor of Philosophy, an applicant must demonstrate the ability to meet both the divisional requirements and the departmental requirements for admission.

The applicant must satisfy the above mentioned requirements for the degree of Master of Science in mathematics.

The applicant must satisfactorily complete a topic exam. This exam covers material that is chosen by the student in consultation with members of the department and is studied independently. The topic presentation is normally made by the end of the student's second year of graduate study, and includes both a written proposal and an oral presentation and exam.

The applicant must also successfully complete the department's program of preparatory training in the effective teaching of mathematics in the English language at a level commensurate with the level of instruction at the University of Chicago.

After successful completion of the topic presentations, the student is expected to begin research towards the dissertation under the guidance of a member of the department. The remaining requirements are to:

1. Complete a dissertation containing original, substantial, and publishable mathematical results
2. Present the contents of the dissertation in an open lecture
3. Pass an oral examination based both on the dissertation and the field of mathematics in which it lies

A joint Ph.D. in Mathematics and Computer Science is also offered. To be admitted to the joint program, students must be admitted by both departments as follows. Each student in this program will have a primary program (either Math or CS). Students apply to their primary program. Once admitted, they can apply to the secondary program for admission to the joint program. This secondary application can occur either before they enter the program or any time during their first four years in their primary program. Simultaneous applications to both programs will also be considered (one of the programs being designated as primary).

Students enrolling in this program need to satisfy the course requirements of both departments. They have to satisfy the course requirements of their primary program on the schedule of that program, and satisfy the course requirements of their secondary program by the end of their fifth year. They also need to satisfy the examination requirements of their primary program, and are expected to write a dissertation in an area relevant to both fields.

MATHEMATICS COURSES

MATH 30200-30300-30400. Computability Theory-1; Computability Theory-2; Computability Theory-3.
The courses in this sequence are offered in alternate years.

MATH 30200. Computability Theory I. 100 Units.

We investigate the computability and relative computability of functions and sets. Topics include mathematical models for computations, basic results such as the recursion theorem, computably enumerable sets, and priority methods.

Instructor(s): D. Hirschfeldt Terms Offered: Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): CMSC 38000

MATH 30300. Computability Theory II. 100 Units.

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): D. Hirschfeldt Terms Offered: Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): CMSC 38100

MATH 30400. Computability Theory-3. 100 Units.**MATH 30300. Computability Theory II. 100 Units.**

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): D. Hirschfeldt Terms Offered: Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): CMSC 38100

MATH 30400. Computability Theory-3. 100 Units.**MATH 30708. Simple Theories. 100 Units.**

Simple theories (so called), introduced almost forty years ago, provide a model theoretic framework for studying certain families of "random" objects, such as the theories of random graphs and hypergraphs. Very recent work has shown the class to contain a much greater range of complexity than previously thought. This course will cover the fundamental theorems of simple theories along with some of the new developments.

Instructor(s): Maryanthe Malliaris Terms Offered: Autumn

MATH 30813. Some Logic and Geometry for Mathematicians. 100 Units.

This quarter course will cover three major applications of logic to other branches of mathematics. The first is Tarski's theorem about quantifier elimination and decidability of the first order theory of the reals. This is a cornerstone of real algebraic geometry with major implications in analysis and geometry. The second is the existence of groups with unsolvable word problem and Higman's characterization of finitely generated subgroups of finitely generated groups. This implies that some geometric problems, such as the homeomorphism problem for manifolds, or deciding whether a simplicial complex is a manifold are undecidable (as we hope to explain). And, finally, we will explain why there is no algorithm to decide whether Diophantine equations with integer coefficients have integral solutions, along with some interesting definability questions in this context.

Instructor(s): Shmuel Weinberger, Maryanthe Malliaris Terms Offered: Spring

MATH 30900-31000. Model Theory I-II.

MATH 30900 covers completeness and compactness; elimination of quantifiers; omission of types; elementary chains and homogeneous models; two cardinal theorems by Vaught, Chang, and Keisler; categories and functors; inverse systems of compact Hausdorff spaces; and applications of model theory to algebra. In MATH 31000, we study saturated models; categoricity in power; the Cantor-Bendixson and Morley derivatives; the Morley theorem and the Baldwin-Lachlan theorem on categoricity; rank in model theory; uniqueness of prime models and existence of saturated models; indiscernibles; ultraproducts; and differential fields of characteristic zero.

MATH 30900. Model Theory I. 100 Units.

First graduate course in model theory, covering the basics of the modern field, through stability.

Prerequisite(s): MATH 25500 or 25800

Note(s): This course is offered in alternate years.

MATH 31000. Model Theory II. 100 Units.

Second graduate course in model theory, focusing on the fundamentals of classification theory.

Terms Offered: Spring

Prerequisite(s): MATH 30900

Note(s): This course is offered in alternate years.

MATH 31000. Model Theory II. 100 Units.

Second graduate course in model theory, focusing on the fundamentals of classification theory.

Terms Offered: Spring

Prerequisite(s): MATH 30900

Note(s): This course is offered in alternate years.

MATH 31200-31300-31400. Analysis I-II-III.

Analysis I-II-III

MATH 31200. Analysis I. 100 Units.

Topics include: Measure theory and Lebesgue integration, harmonic functions on the disk and the upper half plane, Hardy spaces, conjugate harmonic functions, Introduction to probability theory, sums of independent variables, weak and strong law of large numbers, central limit theorem, Brownian motion, relation with harmonic functions, conditional expectation, martingales, ergodic theorem, and other aspects of measure theory in dynamics systems, geometric measure theory, Hausdorff measure.

Terms Offered: Autumn

Prerequisite(s): MATH 26200, 27000, 27200, and 27400; and consent of director or co-director of undergraduate studies

MATH 31300. Analysis II. 100 Units.

Topics include: Hilbert spaces, projections, bounded and compact operators, spectral theorem for compact selfadjoint operators, unbounded selfadjoint operators, Cayley transform, Banach spaces, Schauder bases, Hahn-Banach theorem and its geometric meaning, uniform boundedness principle, open mapping theorem, Frechet spaces, applications to elliptic partial differential equations, Fredholm alternative.

Terms Offered: Winter

Prerequisite(s): MATH 31200

MATH 31400. Analysis III. 100 Units.

Topics include: Basic complex analysis, Cauchy theorem in the homological formulation, residues, meromorphic functions, Mittag-Leffler theorem, Gamma and Zeta functions, analytic continuation, monodromy theorem, the concept of a Riemann surface, meromorphic differentials, divisors, Riemann-Roch theorem, compact Riemann surfaces, uniformization theorem, Green functions, hyperbolic surfaces, covering spaces, quotients.

Terms Offered: Spring

Prerequisite(s): MATH 31300

MATH 31300. Analysis II. 100 Units.

Topics include: Hilbert spaces, projections, bounded and compact operators, spectral theorem for compact selfadjoint operators, unbounded selfadjoint operators, Cayley transform, Banach spaces, Schauder bases, Hahn-Banach theorem and its geometric meaning, uniform boundedness principle, open mapping theorem, Frechet spaces, applications to elliptic partial differential equations, Fredholm alternative.

Terms Offered: Winter

Prerequisite(s): MATH 31200

MATH 31400. Analysis III. 100 Units.

Topics include: Basic complex analysis, Cauchy theorem in the homological formulation, residues, meromorphic functions, Mittag-Leffler theorem, Gamma and Zeta functions, analytic continuation, monodromy theorem, the concept of a Riemann surface, meromorphic differentials, divisors, Riemann-Roch theorem, compact Riemann surfaces, uniformization theorem, Green functions, hyperbolic surfaces, covering spaces, quotients.

Terms Offered: Spring

Prerequisite(s): MATH 31300

MATH 31700-31800-31900. Topology and Geometry I-II-III.

Topology and Geometry I-II-III

MATH 31700. Topology and Geometry I. 100 Units.

Topics include: Fundamental group, covering space theory and Van Kampen's theorem (with a discussion of free and amalgamated products of groups), homology theory (singular, simplicial, cellular), cohomology theory, Mayer-Vietoris, cup products, Poincare Duality, Lefschetz fixed-point theorem, some homological algebra (including the Kunnet and universal coefficient theorems), higher homotopy groups, Whitehead's theorem, exact sequence of a fibration, obstruction theory, Hurewicz isomorphism theorem.

Terms Offered: Autumn

Prerequisite(s): MATH 26200, 27000, 27200, and 27400; and consent of director or co-director of undergraduate studies

MATH 31800. Topology and Geometry II. 100 Units.

Topics include: Definition of manifolds, tangent and cotangent bundles, vector bundles. Inverse and implicit function theorems. Sard's theorem and the Whitney embedding theorem. Degree of maps. Vector fields and flows, transversality, and intersection theory. Frobenius' theorem, differential forms and the associated formalism of pullback, wedge product, integration, etc. Cohomology via differential forms, and the de Rham theorem. Further topics may include: compact Lie groups and their representations, Morse theory, cobordism, and differentiable structures on the sphere.

Terms Offered: Winter

Prerequisite(s): MATH 31700

MATH 31900. Topology and Geometry III. 100 Units.

Topics include: Riemannian metrics, connections and curvature on vector bundles, the Levi-Civita connection, and the multiple interpretations of curvature. Geodesics and the associated variational formalism (formulas for the 1st and 2nd variation of length), the exponential map, completeness, and the influence of curvature on the topological structure of a manifold (positive versus negative curvature). Lie groups. The Chern-Weil description of characteristic classes, the Gauss-Bonnet theorem, and possibly the Hodge Theorem.

Terms Offered: Winter

Prerequisite(s): MATH 31800

MATH 31800. Topology and Geometry II. 100 Units.

Topics include: Definition of manifolds, tangent and cotangent bundles, vector bundles. Inverse and implicit function theorems. Sard's theorem and the Whitney embedding theorem. Degree of maps. Vector fields and flows, transversality, and intersection theory. Frobenius' theorem, differential forms and the associated formalism of pullback, wedge product, integration, etc. Cohomology via differential forms, and the de Rham theorem. Further topics may include: compact Lie groups and their representations, Morse theory, cobordism, and differentiable structures on the sphere.

Terms Offered: Winter

Prerequisite(s): MATH 31700

MATH 31900. Topology and Geometry III. 100 Units.

Topics include: Riemannian metrics, connections and curvature on vector bundles, the Levi-Civita connection, and the multiple interpretations of curvature. Geodesics and the associated variational formalism (formulas for the 1st and 2nd variation of length), the exponential map, completeness, and the influence of curvature on the topological structure of a manifold (positive versus negative curvature). Lie groups. The Chern-Weil description of characteristic classes, the Gauss-Bonnet theorem, and possibly the Hodge Theorem.

Terms Offered: Winter

Prerequisite(s): MATH 31800

MATH 32500-32600-32700. Algebra I-II-III.

Algebra I-II-III

MATH 32500. Algebra I. 100 Units.

Topics include: Representation theory of finite groups, including symmetric groups and finite groups of Lie type; group rings; Schur functors; induced representations and Frobenius reciprocity; representation theory of Lie groups and Lie algebras, highest weight theory, Schur-Weyl duality; applications of representation theory in various parts of mathematics.

Terms Offered: Autumn

Prerequisite(s): MATH 25700-25800-25900, and consent of director or co-director of undergraduate studies

MATH 32600. Algebra II. 100 Units.

This course will explain the dictionary between commutative algebra and algebraic geometry. Topics will include the following. Commutative ring theory; Noetherian property; Hilbert Basis Theorem; localization and local rings; etc. Algebraic geometry: affine and projective varieties, ring of regular functions, local rings at points, function fields, dimension theory, curves, higher-dimensional varieties.

Terms Offered: Winter

Prerequisite(s): MATH 32500

MATH 32700. Algebra III. 100 Units.

According to the inclinations of the instructor, this course may cover: algebraic number theory; homological algebra; further topics in algebraic geometry and/or representation theory.

Terms Offered: Spring

Prerequisite(s): MATH 32600

MATH 32600. Algebra II. 100 Units.

This course will explain the dictionary between commutative algebra and algebraic geometry. Topics will include the following. Commutative ring theory; Noetherian property; Hilbert Basis Theorem; localization and local rings; etc. Algebraic geometry: affine and projective varieties, ring of regular functions, local rings at points, function fields, dimension theory, curves, higher-dimensional varieties.

Terms Offered: Winter

Prerequisite(s): MATH 32500

MATH 32700. Algebra III. 100 Units.

According to the inclinations of the instructor, this course may cover: algebraic number theory; homological algebra; further topics in algebraic geometry and/or representation theory.

Terms Offered: Spring

Prerequisite(s): MATH 32600

MATH 34100. Geometric Literacy-1. 100 Units.

This ongoing course might be subtitled: "what every good geometer should know". The topics will intersperse more elementary background with topics close to current research, and should be understandable to second year students. The individual modules (2-5 weeks each) might be logically interrelated, but we will try to maintain a "modular structure" so that people who are willing to assume certain results as "black boxes" will be able to follow more advanced modules before formally learning all the prerequisites. This years topics might include: basics of symplectic geometry, harmonic maps in geometry, pseudo-Anosov homeomorphisms and Thurston's compactification of Teichmuller space, algebraic geometry for non-algebraic geometers. Prereq: First year graduate sequence.

Instructor(s): Benson Farb Terms Offered: Autumn

Prerequisite(s): First year graduate sequence.

MATH 34200. Geometric Literacy-2. 100 Units.

This ongoing course might be subtitled: "what every good geometer should know". The topics will intersperse more elementary background with topics close to current research, and should be understandable to second year students. The individual modules (2-5 weeks each) might be logically interrelated, but we will try to maintain a "modular structure" so that people who are willing to assume certain results as "black boxes" will be able to follow more advanced modules before formally learning all the prerequisites. This years topics might include: basics of symplectic geometry, harmonic maps in geometry, pseudo-Anosov homeomorphisms and Thurston's compactification of Teichmuller space, algebraic geometry for non-algebraic geometers. Prereq: First year graduate sequence.

MATH 34300. Geometric Literacy - 3. 100 Units.

This ongoing course might be subtitled: "what every good geometer should know". The topics will intersperse more elementary background with topics close to current research, and should be understandable to second year students. The individual modules (2-5 weeks each) might be logically interrelated, but we will try to maintain a "modular structure" so that people who are willing to assume certain results as "black boxes" will be able to follow more advanced modules before formally learning all the prerequisites. This years topics might include: basics of symplectic geometry, harmonic maps in geometry, pseudo-Anosov homeomorphisms and Thurston's compactification of Teichmuller space, algebraic geometry for non-algebraic geometers. Prereq: First year graduate sequence.

Instructor(s): Benson Farb Terms Offered: Spring

Prerequisite(s): First year graduate sequence.

MATH 36000. Proseminar: Topology, 100 Units.

This informal proseminar is devoted to topics in algebraic topology and neighboring fields. Talks are given by graduate students, postdocs, and senior faculty. They range from basic background through current research.

Instructor(s): Staff

MATH 36100. Topology Proseminar. 100 Units.

This informal "proseminar" is devoted to topics in algebraic topology and neighboring fields. Talks are given by graduate students, postdocs, and senior faculty. They range from basic background through current research.

Instructor(s): J. Peter May Terms Offered: Winter

MATH 36200. Topology Proseminar. 100 Units.

The Spring proseminar is a more formal version of the Fall and Winter topology proseminar. It will be taught primarily or completely by May, on topics of interest to the participants.

Instructor(s): J. Peter May Terms Offered: Spring

MATH 36918. Min-max Methods in Minimal Surfaces. 100 Units.

Min-max methods in minimal surfaces have produced a series of spectacular results lately and settle old questions. I will develop the Algren-Pitts min-max theory from the beginning and explain how that can be used to prove existence of minimal surfaces.

Instructor(s): Andre Neves Terms Offered: Spring

MATH 37105. Topics in Geometric Measure Theory I. 100 Units.

A measure is a way to assign a size to collections of points. Lebesgue measure is the most important example but, depending upon the application, the 'size' of a set may be measured in many different, very interesting ways.

The interplay between measure and geometry can be extremely subtle and has given rise to powerful ideas that are used in energy minimisation problems, the theory of partial differential equations and the study of fractal geometry. This is an advanced course on geometric measure theory and its applications.

Instructor(s): Marianna Csornyei Terms Offered: Autumn

MATH 37111. Quiver Varieties. 100 Units.

Study of quiver varieties.

Instructor(s): Victor Ginzburg Terms Offered: Spring

MATH 37219. Crystalline Differential Operators. 100 Units.

Introduction to crystalline differential operators.

Instructor(s): Victor Ginzburg Terms Offered: Winter

MATH 38595. Topics in Complex Dynamics. 100 Units.

An introduction to the theory of complex dynamics in 1 dimension, especially the theory of rational maps and rational correspondences. Foundations of the theory, quasiconformal analysis, no wandering domains, Mandelbrot set and variations.

Instructor(s): Danny Calegari Terms Offered: Spring

MATH 38599. Introduction to Floer Theories. 100 Units.

An introduction to the use of gauge theoretic methods in 3-manifold topology, including Seiberg-Witten and Heegaard Floer Homology, connections to taut foliations and sutured manifolds. Thurston norm, contact structures, etc.

Instructor(s): Danny Calegari Terms Offered: Winter

MATH 42002. P-adic Hodge Theory. 100 Units.

Basic things in p-adic Hodge theory are explained.

Instructor(s): Kazuya Kato Terms Offered: Winter

Prerequisite(s): Algebra 1, 2, 3

MATH 47000. Geometric Langlands Seminar. 100 Units.

This seminar is devoted not only to the Geometric Langlands theory but also to related subjects (including topics in algebraic geometry, algebra and representation theory). We will try to learn some modern homological algebra (Kontsevich's A- infinity categories) and some "forgotten" parts of D- module theory (e.g. the microlocal approach).

Instructor(s): Alexander Beilinson, Vladimir Drinfeld Terms Offered: Autumn

MATH 47100. Geometric Langlands Seminar. 100 Units.

The seminar is devoted to the Geometric Langlands theory and related subjects, which covers topics in algebraic geometry, algebra, and representation theory.

Instructor(s): Alexander Beilinson, Vladimir Drinfeld Terms Offered: Winter

MATH 47200. Geometric Langlands Seminar. 100 Units.

The seminar is devoted to the Geometric Langlands theory and related subjects, which covers topics in algebraic geometry, algebra, and representation theory.

Instructor(s): Alexander Beilinson, Vladimir Drinfeld Terms Offered: Spring

MATH 59900. Reading/Research: Mathematics. 300.00 Units.

Readings and Research for working on their PhD

MATH 70000. Advanced Study: Mathematics. 300.00 Units.

Advanced Study: Mathematics



DEPARTMENT OF PHYSICS

Department Website: <http://physics.uchicago.edu>
Chair

- Young-Kee Kim

Professors

- Edward C. Blucher
- Marcela Carena
- John Eric Carlstrom, Astronomy & Astrophysics
- Cheng Chin
- Juan Collar
- Henry J. Frisch
- Margaret Gardel
- Philippe M. Guyot Sionnest, Chemistry
- Jeffrey A. Harvey
- Eric Isaacs
- Heinrich Martin Jaeger
- Woowon Kang
- Kwang Je Kim
- Young Kee Kim
- David Kutasov
- Kathryn Levin
- Peter Littlewood
- Zheng Tian Lu
- Emil J. Martinec
- Stephan Meyer, Astronomy & Astrophysics
- Sergei Nagaitsev
- Sidney R. Nagel
- Mark J. Oreglia
- Paolo Privitera, Astronomy & Astrophysics
- Robert Rosner, Astronomy & Astrophysics
- Guy Savard
- Savdeep Sethi
- Melvyn J. Shochet
- Dam T. Son
- Michael Turner, Astronomy & Astrophysics
- Vincenzo Vitelli
- Carlos E.M. Wagner
- Yau Wai Wah
- Robert M. Wald
- Paul B. Wiegmann
- Linda Young

Associate Professors

- Erez Berg
- Daniel Holz
- William Irvine
- Michael Rust, Molecular Genetics and Cell Biology
- Shinsei Ryu
- Scott Wakely
- LianTao Wang
- Wendy Zhang

Assistant Professors

- Luca Grandi
- Michael Levin
- David Miller
- Arvind Murugan
- Stephanie Palmer, Organismal Biology and Anatomy
- David Schmitz
- David Schuster
- Jonathan Simon
- Abigail Vieregg

Emeritus Faculty

- Isaac D. Abella
- James W. Cronin
- Dean Eastman
- Peter G.O. Freund
- Robert P. Geroch
- Roger H. Hildebrand
- Riccardo Levi Setti
- Gene F. Mazenko
- Frank S. Merritt
- Dietrich Müller
- Eugene Parker
- James E. Pilcher
- Jonathan L. Rosner
- John P. Schiffer
- Thomas A. Witten
- S. Courtney Wright

The Department of Physics (<http://physics.uchicago.edu>) offers advanced degree opportunities in many areas of experimental and theoretical physics, supervised by a distinguished group of research faculty. Applications are accepted from students of diverse backgrounds and institutions: graduates of research universities or four year colleges, from the U.S. and worldwide. Most applicants, but not all, have undergraduate degrees in physics; many have had significant research experience. Seeking to identify the most qualified students who show promise of excellence in research and teaching, the admissions process is highly selective and very competitive.

DOCTOR OF PHILOSOPHY

During the first year of the doctoral program, a student takes introductory graduate physics courses and usually serves as a teaching assistant assigned to one of the introductory or intermediate undergraduate physics courses. Students are encouraged to explore research opportunities during their first year. Students are strongly encouraged to take the graduate diagnostic examination prior to their first quarter in the program. The results of this examination will determine which of the introductory graduate courses the student must take to achieve candidacy. After achieving candidacy and identifying a research sponsor, the student begins dissertation research while completing course requirements. Within a year after research begins, a PhD committee is formed with the sponsor as chairman. The student continues research, from time to time consulting with the members of the committee, until completion of the dissertation. The average length of time for completion of the PhD program in physics is about six years.

In addition to fulfilling University and divisional requirements, a candidate for the degree of Doctor of Philosophy in physics must:

- Achieve Candidacy.
- Fulfill the experimental physics requirement by completing PHYS 33400 Adv Experimental Physics or PHYS 33500 Adv Experimental Physics Project.
- Pass four post candidacy advanced graduate courses devoted to the broad physics research areas of (A) Condensed Matter Physics, (B) Particle Physics, (C) Large Scale Physics (i.e. Astrophysics and/or Cosmology related), and (D) Intermediate Electives. The four courses selected must include at least one from each of the categories (A), (B), and (C).

- Pass two other advanced (40000 level) courses either in physics or in a field related to the student's Ph.D. research. The latter requires department approval.
- Within the first year after beginning research, convene a first meeting of the Ph.D. committee to review plans for the proposed thesis research and for fulfilling the remaining Ph.D. requirements.
- One to two quarters prior to the defense of the dissertation, hold a pre-oral meeting at which the student and the Ph.D. committee discuss the research project.
- Defend the dissertation before the Ph.D. committee.
- Submit for publication to a refereed scientific journal the thesis which has been approved by the Ph.D. committee or a paper based on the thesis. A letter from the editor acknowledging receipt of the thesis must be provided to the department office.

Consult a department adviser for more details.

MASTER OF SCIENCE

The graduate program of the Department of Physics is oriented toward students who intend to earn a Ph.D. degree in physics. Therefore, the department does not offer admission to students whose goal is the Master of Science degree. However, the department does offer a master's degree to students who are already in the physics Ph.D. program or other approved graduate programs in the University. Normally it takes one and a half years for a student to complete the master's program. A master's degree is not required for continued study toward the doctorate.

In addition to fulfilling University and Divisional requirements, a candidate for the degree of Master of Science in physics must demonstrate a satisfactory level of understanding of the fundamental principles of physics by passing nine approved courses with a minimum grade point average of 2.5. Six of the nine courses must be:

PHYS 31600	Adv Classical Mechanics	100
PHYS 33000	Math Methods Of Physics-1	100
PHYS 34100	Graduate Quantum Mechanics-1	100
PHYS 32200	Advanced Electrodynamics I	100
PHYS 35200	Statistical Mechanics	100
PHYS 33400	Adv Experimental Physics	100
PHYS 33500	Adv Experimental Physics Project	100

Testing out of certain courses (PHYS 31600, 32200, 32300, 34100, 34200, and 35200) on the Graduate Diagnostic Exam can be applied toward the Master's degree in place of taking the course. The 2.5 GPA minimum applies only to courses taken in addition to those credited by performance on the Graduate Diagnostic Exam

The Department may approve substitutions to this list where warranted, especially regarding courses for which the student placed out of as a result of the graduate diagnostic exam.

TEACHING OPPORTUNITIES

Part of the training of graduate students is dedicated to obtaining experience and facility in teaching. Most first year students are supported by teaching assistantships, which provide the opportunity for them to engage in a variety of teaching related activities. These may include supervising undergraduate laboratory sections, conducting discussion and problem sessions, holding office hours, and grading written work for specific courses. Fellowship holders are invited to participate in these activities at reduced levels of commitment to gain experience in the teaching of physics. During the Autumn quarter first year graduate students attend the weekly workshop, Teaching and Learning of Physics, which is an important element in their training as teachers of physics.

TEACHING FACILITIES

All formal class work takes place in the modern lecture halls and classrooms and instructional laboratories of the Kersten Physics Teaching Center. This building also houses special equipment and support facilities for student experimental projects, departmental administrative offices, and meeting rooms. The center is situated on the science quadrangle near the John Crerar Science Library, which holds over 1,000,000 volumes and provides modern literature search and data retrieval systems.

RESEARCH FACILITIES

Most of the experimental and theoretical research of Physics faculty and graduate students is carried out within the Enrico Fermi Institute (<http://efi.uchicago.edu>), the James Franck Institute (<http://jfi.uchicago.edu>) and the Institute for Biophysical Dynamics (<http://ibd.uchicago.edu>). These research institutes provide close interdisciplinary contact, crossing the traditional boundaries between departments. This broad scientific endeavor is reflected in students' activities and contributes to their outlook toward research.

In the Enrico Fermi Institute, members of the Department of Physics carry out theoretical research in particle theory, string theory, field theory, general relativity, and theoretical astrophysics and cosmology. There are active experimental groups in high energy physics, nuclear physics, astrophysics and space physics, infrared and optical astronomy, and microwave background observations. Some of this research is conducted at the Fermi National Accelerator Laboratory, at Argonne National Laboratory (both of these are near Chicago), and at the European Organization for Nuclear Research (CERN) in Geneva, Switzerland.

Physics faculty in the James Franck Institute study chemical, solid state, condensed matter, and statistical physics. Fields of interest include chaos, chemical kinetics, critical phenomena, high Tc superconductivity, nonlinear dynamics, low temperature, disordered and amorphous systems, the dynamics of glasses, fluid dynamics, surface and interface phenomena, nonlinear and nanoscale optics, unstable and metastable systems, laser cooling and trapping, atomic physics, and polymer physics. Much of the research utilizes specialized facilities operated by the institute, including a low temperature laboratory, a materials preparation laboratory, x-ray diffraction and analytical chemistry laboratories, laser equipment, a scanning tunneling microscope, and extensive shop facilities. Some members of the faculty are involved in research at Argonne National Laboratory.

The Institute for Biophysical Dynamics includes members of both the Physical Sciences and Biological Sciences Divisions, and focuses on the physical basis for molecular and cellular processes. This interface between the physical and biological sciences is an exciting area that is developing rapidly, with a bi-directional impact. Research topics include the creation of physical materials by biological self assembly, the molecular basis of macromolecular interactions and cellular signaling, the derivation of sequence structure function relationships by computational means, and structure function relationships in membranes.

In the areas of chemical and atomic physics, research toward the doctorate may be done in either the physics or the chemistry department. Facilities are available for research in crystal chemistry; molecular physics; molecular spectra from infrared to far ultraviolet, Bose Einstein condensation, and Raman spectra, both experimental and theoretical; surface physics; statistical mechanics; radio chemistry; and quantum electronics.

Interdisciplinary research leading to a Ph.D. degree in physics may be carried out under the guidance of faculty committees including members of other departments in the Division of the Physical Sciences, such as Astronomy & Astrophysics, Chemistry, Computer Science, Geophysical Sciences or Mathematics, or related departments in the Division of the Biological Sciences.

ADMISSION AND STUDENT AID

Most students entering the graduate program of the Department of Physics of the University of Chicago hold a bachelor's or master's degree in physics from an accredited college or university.

December 15 is the deadline for applications for admission in the following autumn quarter. The Graduate Record Examination (GRE) given by the Educational Testing Service is required of all applicants. Applicants should submit recent scores on the verbal, quantitative, and analytic writing tests and on the advanced subject test in physics. Arrangements should be made to take the examination no later than September in order that the results be available in time for the department's consideration. Applicants from non-English speaking countries must provide the scores achieved on the TOEFL or the IELTS.

All full time physics graduate students in good standing receive financial aid. Most graduate students serve as teaching assistants in their first year.

The department has instituted a small bridge-to-Ph.D. program which does not require the Graduate Record Examination. The application deadline for this program varies but is expected to be mid to late spring.

For information including faculty research interests, application instructions, and other important program details please visit our department website <http://physics.uchicago.edu/>. You can also reach out to physics@uchicago.edu with any questions or concerns regarding the admissions process.

PHYSICS COURSES

PHYS 30101. Analytical Methods of Physics I. 100 Units.

This course focuses on analytical techniques used in physics. It is designed to have flexible topical coverage so that the course may be geared to the registered students. Enrollment is by instructor approval only.

Instructor(s): D. Reed Terms Offered: Autumn

Prerequisite(s): Permission of the instructor.

PHYS 30102. Analytical Methods of Physics II. 100 Units.

Course focuses on analytical techniques used in Physics. It is designed to have flexible topical coverage so that the course may be geared to registered students. Enrollment is by instructor approval only.

PHYS 30103. Analytical Methods of Physics III. 100 Units.**PHYS 31600. Adv Classical Mechanics. 100 Units.**

This course begins with variational formulation of classical mechanics of point particles, including discussion of the principle of least action, Poisson brackets, and Hamilton-Jacobi theory. These concepts are generalized to continuous systems with infinite number of degrees of freedom, including a discussion of the transition to quantum mechanics.

Terms Offered: Autumn

Prerequisite(s): PHYS 18500

PHYS 32200-32300. Advanced Electrodynamics I-II.

This two-quarter sequence covers electromagnetic properties of continuous media, gauge transformations, electromagnetic waves, radiation, relativistic electrodynamics, Lorentz theory of electrons, and theoretical optics. There is considerable emphasis on the mathematical methods behind the development of the physics of these problems.

PHYS 32200. Advanced Electrodynamics I. 100 Units.

Terms Offered: Winter

Prerequisite(s): PHYS 22700 and 23500

PHYS 32300. Advanced Electrodynamics II. 100 Units.

Terms Offered: Spring

Prerequisite(s): PHYS 32200

PHYS 32300. Advanced Electrodynamics II. 100 Units.

Terms Offered: Spring

Prerequisite(s): PHYS 32200

PHYS 33000. Math Methods Of Physics-1. 100 Units.

Topics include complex analysis, linear algebra, differential equations, boundary value problems, and special functions.

Terms Offered: Autumn

Prerequisite(s): PHYS 22700

PHYS 33400. Adv Experimental Physics. 100 Units.

For course description contact Physics.

Terms Offered: Spring

PHYS 33500. Adv Experimental Physics Project. 100 Units.

For course description contact Physics.

PHYS 34100-34200. Advanced Quantum Mechanics I-II.

This two-quarter sequence covers wave functions and their physical content, one-dimensional systems, WKB method, operators and matrix mechanics, angular momentum and spin, two- and three-dimensional systems, the Pauli principle, perturbation theory, Born approximation, and scattering theory.

PHYS 34100. Graduate Quantum Mechanics-1. 100 Units.

This course is a two-quarter sequence that covers wave functions and their physical content, one dimensional systems, WKB method, operators and matrix mechanics, angular momentum and spin, two-and-three dimensional systems, with Pauli principle, perturbation theory, Born approximation, and scattering theory.

Terms Offered: Autumn

Prerequisite(s): PHYS 23500

PHYS 34200. Graduate Quantum Mechanics-2. 100 Units.

This two-quarter sequence covers wave functions and their physical content, one-dimensional systems, WKB method, operators and matrix mechanics, angular momentum and spin, two- and three-dimensional systems, the Pauli principle, perturbation theory, Born approximation, and scattering theory

Terms Offered: Winter

Prerequisite(s): PHYS 34100

PHYS 34200. Graduate Quantum Mechanics-2. 100 Units.

This two-quarter sequence covers wave functions and their physical content, one-dimensional systems, WKB method, operators and matrix mechanics, angular momentum and spin, two- and three-dimensional systems, the Pauli principle, perturbation theory, Born approximation, and scattering theory

Terms Offered: Winter

Prerequisite(s): PHYS 34100

PHYS 35200. Statistical Mechanics. 100 Units.

This course covers principles of statistical mechanics and thermodynamics, as well as their applications to problems in physics and chemistry.

Terms Offered: Spring

Prerequisite(s): PHYS 19700 and 23500

PHYS 35300. Advanced Statistical Mechanics. 100 Units.

This course will cover advanced topics in collective behavior, mean field theory, fluctuations, scaling hypothesis. Perturbative renormalization group, series expansions, low-dimensional systems and topological defects, random systems and conformal symmetry.

PHYS 36100. Solid State Physics. 100 Units.

Topics include Properties of Insulators, Electronic Properties of Solids, Thermal Properties, Optical Properties of Solids, and Transport in Metals (conductivity, Hall effect, etc.)

Terms Offered: Autumn

Prerequisite(s): PHYS 23600, 34200, 35200

PHYS 36300. Particle Physics. 100 Units.**PHYS 36400. General Relativity. 100 Units.**

This is advanced-level course on general relativity treats special relativity, manifolds, curvature, gravitation, the Schwarzschild solution and black holes.

Terms Offered: Winter 2014

PHYS 36600. Adv Condensed Matter Physics. 100 Units.

Phasetransitions, Magnetism, Superconductivity, Disorder, Quantum Hall Effect, Superfluidity, Physics of Low-dimensional systems, Fermi liquid theory, and Quasi-crystals.

Terms Offered: Winter

PHYS 36700. Soft Condensed Matter Phys. 100 Units.

This course will cover topics including granular and colloidal matter, jamming, fluids, instabilities and topological shapes and transitions between them.

PHYS 37100. Introduction To Cosmology. 100 Units.**PHYS 37200. Space Physics and Astrophysics. 100 Units.**

This course treats various topics in modern astrophysics.

Terms Offered: Autumn

PHYS 38500. Advanced Mathematical Methods. 100 Units.

Course description unavailable.

Terms Offered: Winter

PHYS 38600. Advanced Methods of Data Analysis. 100 Units.

This course covers advanced methods of data analysis including probability distributions, propagation of errors, Bayesian approaches, maximum likelihood estimators, confidence intervals, and more.

Terms Offered: Spring

PHYS 39000. PREP for Candidacy. 300.00 Units.

Registration for students who have not yet reached Ph.D. candidacy.

PHYS 39800. Research: Physics. 300.00 Units.

Registration for students performing individually arranged research projects not related to a doctoral thesis.

PHYS 39900. Prep For Candidacy Examination. 300.00 Units.**PHYS 40600. Nuclear Physics. 100 Units.**

No description Available

PHYS 40700. X-ray Lasers and Applications. 100 Units.

This course will introduce the basic concepts of accelerator-based x-ray light sources (XFELs and synchrotrons) and survey contemporary x-ray applications such as nonlinear multiphoton absorption, induced transparency/saturable absorption, and atomic x-ray lasing in systems ranging from atoms to clusters to solids.

PHYS 41000. Accelerator Physics. 100 Units.

The course begins with the historical development of accelerators and their applications. Following a brief review of special relativity, the bulk of the course will focus on acceleration methods and phase stability, basic concepts of magnet design, and transverse linear particle motion. Basic accelerator components such as bending and focusing magnets, electrostatic deflectors, beam diagnostics and radio frequency accelerating structures will be described. The basic concepts of magnet design will be introduced, along with a discussion of particle beam optics. An introduction to resonances, linear coupling, space charge, magnet errors, and synchrotron radiation will also be given. Topics in longitudinal and transverse beam dynamics will be explored, including synchrotron and betatron particle motion. Lastly, a number of additional topics will be reviewed, including synchrotron radiation sources, free electron lasers, high energy colliders, and accelerators for radiation therapy. Several laboratory sessions will provide hands-on experience with hardware and measurement instrumentation.

Terms Offered: Autumn

PHYS 41100. Many Body Theory. 100 Units.

The course will follow roughly the new textbook by Piers Coleman "Introduction to Many-Body Physics". The topics are: Second quantization, Path integral, Quantum fields, Green functions, Feynman diagrams, Landau Fermi Liquid theory, Phase transitions, BCS theory, more advanced topics.

PHYS 41200. Topological Quantum Matter. 100 Units.**PHYS 42100. Fractional Quantum Hall Effect. 100 Units.****PHYS 42600. Fluid Mechanics. 100 Units.**

Terms Offered: Spring

PHYS 44000. Principles of Particle Detectors. 100 Units.**PHYS 44300. Quantum Field Theory I. 100 Units.**

Topics include Basic Field Theory, Scattering and Feynman Rules, and One Loop Effects.

Terms Offered: Autumn

Prerequisite(s): PHYS 34200

PHYS 44400. Quantum Field Theory II. 100 Units.

Topics include Path integral formulation of QFT, Renormalization, Non-Abelian gauge theory.

Terms Offered: Winter

PHYS 44500. Quantum Field Theory-3. 100 Units.**PHYS 44800. Field Theory in Condensed Matter. 100 Units.**

Course description unavailable.

Terms Offered: Autumn

PHYS 45200. Quantum Optics & Quantum Gases. 100 Units.

Atom-photon interaction and optical Bloch vector, Dressed atom description and radiative processes near resonance, Quantization of electromagnetic field, Nonlinear quantum optics, EPR paradox and quantum entanglement of macroscopic systems, Mechanical effects of radiative process, Atomic interactions and resonant scattering, Bose-Einstein condensation and degenerate Fermi gas, Superfluidity of quantum gases.

PHYS 45700. Implementation of Quantum Information Processors. 100 Units.

This course emphasizes the experimental aspects of quantum information focusing on implementations rather than algorithms. Several candidate quantum information systems will be discussed including ion traps, neutral atoms, superconducting circuits, semiconducting quantum dots, and linear optics.

PHYS 45800. The Physics of Quantum Information. 100 Units.**PHYS 46000. Gravitational Waves. 100 Units.**

This course will provide a broad overview of gravitational waves, with a focus on current results from LIGO. We will cover the basics of gravitational wave theory, compact binary coalescence and sources of gravitational wave, ground-based gravitational wave detection, LIGO and the first detections, LIGO's black holes and how the Universe might have made them, gravitational wave astrophysics, and the near future of gravitational wave science.

PHYS 46200. Nuclear Astrophysics. 100 Units.

Terms Offered: Autumn

PHYS 46700. Quantum Field Theory in Curved Spacetime I. 100 Units.

This course covers introductory topics in the study of quantum field theory in curved spacetime. These topics include QFT for a free scalar field and for globally hyperbolic curved spacetimes, and the Unruh effect.

PHYS 46800. Quantum Field Theory in Curved Spacetime II. 100 Units.

This course covers advanced topics in the study of quantum field theory in curved spacetime. These topics include the Hawking effect, quantum perturbations in cosmology, black hole evaporation and information loss, and other modern topics.

PHYS 46900. Effective Field Theories. 100 Units.

TBD

PHYS 48102. Neutrino Physics. 100 Units.

This is an advanced course on neutrino phenomenology. The topics include neutrino flavor transformations, neutrino mass, sterile neutrinos, non-standard interactions of neutrinos, and other topics of modern interest.

PHYS 48300. String Theory-1. 100 Units.

PHYS 48400. String Theory-2. 100 Units.

PHYS 49000. Basic Principles of Biophysics. 100 Units.

This course is designed to expose graduate students in the physical sciences to conceptual and quantitative questions about biological systems. It will cover a broad range of biological examples from vision in flies and developing embryos to swimming bacteria and gene regulation. This course does not assume specialized biological knowledge or advanced mathematical skills.

PHYS 49100. Biological Physics. 100 Units.

PHYS 49900. Advanced Research: Physics. 300.00 Units.

This course is for students performing research toward their doctoral thesis.

PHYS 70000. Advanced Study: Physics. 300.00 Units.

Advanced Study: Physics



DEPARTMENT OF STATISTICS

Chair

- Dan Liviu Nicolae, Statistics and Medicine

Professors

- Yali Amit
- Mihai Anitescu, Argonne National Laboratory
- Guillaume Bal
- Lars Peter Hansen, Economics and Statistics
- Steven P. Lalley
- Gregory F. Lawler, Mathematics and Statistics
- Peter McCullagh
- Mary Sara McPeck
- Per Mykland
- Dan Liviu Nicolae, Statistics and Medicine
- John Reinitz
- Mary Silber
- Matthew Stephens
- Stephen M. Stigler
- Rebecca Willett
- Kirk M. Wolter
- Wei Biao Wu

Associate Professors

- Rina Foygel Barber
- Lek-Heng Lim
- Imre Risi Kondor, Computer Science and Statistics

Assistant Professors

- Chao Gao
- Yuehaw Khoo
- Daniel Sanz-Alonso
- Jingshu Wang

Senior Lecturers

- Eric Baer
- Mei Wang

Lecturers

- Kendra S. Burbank
- Yibi Huang

Instructors

- Tingran Gao
- Daniel Massatt
- Fatma Terzioglu

Visiting Professors

- James O. Berger

The Department of Statistics offers an exciting and revamped graduate program that prepares students for cutting-edge interdisciplinary research in a wide variety of fields. The field of statistics has become a core component of research in the biological, physical, and social sciences, as well as in traditional computer science domains such as artificial intelligence. In light of this, the Department of Statistics is currently undergoing a major expansion of approximately ten new faculty into fields of Computational and Applied Mathematics. The massive increase in the data acquired, through scientific measurement on one hand and through web-based

collection on the other, makes the development of statistical analysis and prediction methodologies more relevant than ever. Our graduate program aims to prepare students to address these issues through rigorous training in theory, methodology, and applications of statistics; rigorous training in scientific computation; and research projects in core methodology of statistics and computation as well as in a wide variety of interdisciplinary fields.

The Department of Statistics offers two tracks of graduate study, one leading to the Master of Science (M.S.) degree, the other to the Doctorate of Philosophy (Ph.D.). The M.S. degree is a professional degree. Students who receive this degree are prepared for nonacademic careers in which the use of advanced statistical and computational methods is of central importance. The program also prepares students for possible further graduate study.

During the first year of the Ph.D. program, students are given a thorough grounding in material that forms the foundations of modern statistics and scientific computation, including data analysis, mathematical statistics, probability theory, applied probability and modeling, and computational methods. Throughout the entire program, students attend a weekly consulting seminar where researchers from across the University come to get advice on modeling, statistical analysis, and computation. This seminar is often the source of interesting and ongoing research projects.

In the second year, students have a wide range of choices of topics they can pursue further, based on their interests, through advanced courses and reading courses with faculty. During the second year, students will typically identify their subfield of interest, take some advanced courses in the subject, and interact with the relevant faculty members. The Department maintains very strong connections to numerous other units on campus, either through joint appointments of the faculty or through ongoing collaborations. Students have easy access to faculty in other departments, which allows them to expand their interactions and develop new interdisciplinary research projects. Examples include joint projects with Human Genetics, Ecology and Evolution, Neurobiology, Chemistry, Economics, Health Studies, and Astronomy.

PROGRAMS AND REQUIREMENTS FOR THE PH.D.

All sufficiently well-prepared students take 3 of 4 sequences in their first year:

- Applied Statistics
- Theoretical Statistics
- Probability
- Computation and Machine Learning

All students pass prelim exams in 2 of the 4 subjects by the beginning of their second year. Well-prepared students may be allowed to pass one or both of their exams upon arrival. Students should take a distribution requirement of up to two courses in their second year and are otherwise encouraged to explore the great variety of graduate courses on offer, both inside the department and in other departments.

Starting in their second year, students should find a topic for a Ph.D. dissertation and establish a relationship with a Ph.D. adviser. Taking courses with potential advisers is part of this process. The detailed process is listed here (http://www.stat.uchicago.edu/students/phd_rules.shtml).

THE PH.D.: TRAINING IN TEACHING, PRESENTATION, AND CONSULTING

Part of every statistician's job is to evaluate the work of others and to communicate knowledge, experience, and insights. Every statistician is, to some extent, an educator, and the department provides graduate students with training for this aspect of their professional lives. The department expects all doctoral students, regardless of their professional objectives and sources of financial support, to take part in a graduated program of participation in some or all phases of instruction, from grading, course assisting, and conducting discussion sections, to being a lecturer with responsibility for an entire course.

Students also receive training in how to present research in short seminars in the first and second years of study. Later, students present their own work in a dissertation proposal and, eventually, in a thesis defense. The student seminars are listed here (<http://www.stat.uchicago.edu/seminars/index.shtml>).

Ph.D. students should also participate in the department's consulting program (<http://galton.uchicago.edu/consulting/index.shtml>), which is led by faculty members and exposes the students to empirical projects inside the university. Projects are carried out by groups of students under the guidance of a faculty member. The client is a researcher in an applied area, usually associated with the university. An informal seminar meets regularly over lunch to provide a forum for presenting and discussing problems, solutions, and topics in statistical consultation. Students present interesting or difficult consulting problems to the seminar as a way of stimulating wider consideration of the problem and as a means of developing familiarity with the kinds of problems and lines of attack involved. Often the client will participate in the presentation and discussion.

PROGRAMS AND REQUIREMENTS FOR THE M.S. DEGREE

The main requirements of the M.S. program are a sequence of at least nine approved courses plus a Master's paper. Students may take up to two years of courses. A detailed set of regulations can be found here (<http://>

galton.uchicago.edu/students/master.shtml). (<http://www.stat.uchicago.edu/students/master.shtml>) A substantial fraction of available courses are the same as for the Ph.D. degree.

FACILITIES

Almost all departmental activities—classes, seminars (<http://galton.uchicago.edu/seminars/index.shtml>), computation (<http://galton.uchicago.edu/local/computing>), and student and faculty offices (<http://galton.uchicago.edu/people>)—are located in Jones Laboratory. Each student is assigned a desk in one of several offices. A small departmental library and conference room is a common meeting place for formal and informal gatherings of students and faculty. The major computing facilities of the department are based upon a network of PCs running mainly Linux. One computer room currently houses many of these PCs; these rooms are directly and primarily for graduate students in the Statistics Department. In addition, all student offices have limited computer facilities. For further information, consult the department's computing policies (<http://www.stat.uchicago.edu/local/computing/policies/index.shtml>).

STATISTICS THROUGHOUT THE UNIVERSITY

In addition to the courses, seminars, and programs in the Department of Statistics, courses and workshops of direct interest to statisticians occur throughout the University, most notably in the programs in statistics and econometrics in the Booth School of Business (<http://www.chicagobooth.edu>) and in the research programs in Health Studies (<http://health.bsd.uchicago.edu>), Human Genetics (<http://genes.uchicago.edu>), Financial Mathematics and Econometrics (<http://stevanovichcenter.uchicago.edu/page/seminars>), Computer Science (<http://www.cs.uchicago.edu>), Economics (<http://economics.uchicago.edu>) and NORC (<http://www.norc.uchicago.edu>) (formerly the National Opinion Research Center). The large number of statistics related seminars (<http://galton.uchicago.edu/seminars/index.shtml>) is perhaps the best indication of the vibrancy of the statistics research community here at the University of Chicago.

STATISTICS COURSES

STAT 30030. Statistical Theory and Methods Ia. 100 Units.

This course is the first quarter of a two-quarter sequence providing a principled development of statistical methods, including practical considerations in applying these methods to the analysis of data. The course begins with a brief review of probability and some elementary stochastic processes, such as Poisson processes, that are relevant to statistical applications. The bulk of the quarter covers principles of statistical inference from both frequentist and Bayesian points of view. Specific topics include maximum likelihood estimation, posterior distributions, confidence and credible intervals, principles of hypothesis testing, likelihood ratio tests, multinomial distributions, and chi-square tests. Additional topics may include diagnostic plots, bootstrapping, a critical comparison of Bayesian and frequentist inference, and the role of conditioning in statistical inference. Examples are drawn from the social, physical, and biological sciences. The statistical software package R will be used to analyze datasets from these fields and instruction in the use of R is part of the course.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): STAT 25100 or STAT 25150 or MATH 23500.

Note(s): Some previous experience with statistics helpful but not required. Concurrent or prior linear algebra (MATH 19620 or 20250 or STAT 24300 or equivalent) is recommended for students continuing to STAT 24510. Students may count either STAT 24400 or STAT 24410, but not both, toward the forty-two credits required for graduation.

Equivalent Course(s): STAT 24410

STAT 30040. Statistical Theory and Methods IIa. 100 Units.

This course is a continuation of STAT 24410. The focus is on theory and practice of linear models, including the analysis of variance, regression, correlation, and some multivariate analysis. Additional topics may include bootstrapping for regression models, nonparametric regression, and regression models with correlated errors. Terms Offered: May be offered in Winter.

Prerequisite(s): STAT 24410 and linear algebra (MATH 19620 or MATH 20250 or STAT 24300 or PHYS 22100 or equivalent).

Note(s): Students may count either STAT 24500 or STAT 24510, but not both, toward the forty-two credits required for graduation.

Equivalent Course(s): STAT 24510

STAT 30100. Mathematical Statistics-1. 100 Units.

This course is part of a two-quarter sequence on the theory of statistics. Topics will include exponential, curved exponential, and location-scale families; mixtures, hierarchical, and conditional modeling including compatibility of conditional distributions; principles of estimation; identifiability, sufficiency, minimal sufficiency, ancillarity, completeness; properties of the likelihood function and likelihood-based inference, both univariate and multivariate, including examples in which the usual regularity conditions do not hold; elements of Bayesian inference and comparison with frequentist methods; and multivariate information inequality. Part of the course will be devoted to elementary asymptotic methods that are useful in the practice of statistics, including methods to derive asymptotic distributions of various estimators and test statistics, such as Pearson's chi-square, standard and nonstandard asymptotics of maximum likelihood estimators and Bayesian estimators, asymptotics of order statistics and extreme order statistics, Cramer's theorem including situations in which the second-order term is needed, and asymptotic efficiency. Other topics (e.g., methods for dependent observations) may be covered if time permits.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): STAT 30400 or consent of instructor

STAT 30200. Mathematical Statistics-2. 100 Units.

This course continues the development of Mathematical Statistics, with an emphasis on hypothesis testing. Topics include comparison of Bayesian and frequentist hypothesis testing; admissibility of Bayes' rules; confidence and credible sets; likelihood ratio tests and their asymptotics; Bayes factors; methods for assessing predictions for normal means; shrinkage and thresholding methods; sparsity; shrinkage as an example of empirical Bayes; multiple testing and false discovery rates; Bayesian approach to multiple testing; sparse linear regressions (subset selection and LASSO, proof of estimation errors for LASSO, Bayesian perspective of sparse regressions); and Bayesian model averaging.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): STAT 24500 or STAT 30100

STAT 30400. Distribution Theory. 100 Units.

This course is a systematic introduction to random variables and probability distributions. Topics include standard distributions (i.e. uniform, normal, beta, gamma, F, t, Cauchy, Poisson, binomial, and hypergeometric); properties of the multivariate normal distribution and joint distributions of quadratic forms of multivariate normal; moments and cumulants; characteristic functions; exponential families; modes of convergence; central limit theorem; and other asymptotic approximations.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): STAT 24500 or STAT 24510 and MATH 20500 or MATH 20510, or consent of instructor.

STAT 30600. Adv. Statistical Inference 1. 100 Units.

Topics covered in this course will include: Gaussian distributions; conditional distributions; maximum likelihood and REML; Laplace approximation and associated expansion; combinatorics and the partition lattice; Mobius inversion; moments, cumulants symmetric functions, and k -statistics; cluster expansions; Bartlett identities and Bartlett adjustment; random partitions, partition processes, and CRP process; Gauss-Ewens cluster process; classification models; trees rooted and unrooted; exchangeable random trees; and Cox processes used for classification.

Terms Offered: To be determined; may not offered in 2019-2020.

Prerequisite(s): Consent of instructor

STAT 30750. Numerical Linear Algebra. 100 Units.

This course is devoted to the basic theory of linear algebra and its significant applications in scientific computing. The objective is to provide a working knowledge and hands-on experience of the subject suitable for graduate level work in statistics, econometrics, quantum mechanics, and numerical methods in scientific computing. Topics include Gaussian elimination, vector spaces, linear transformations and associated fundamental subspaces, orthogonality and projections, eigenvectors and eigenvalues, diagonalization of real symmetric and complex Hermitian matrices, the spectral theorem, and matrix decompositions (QR, Cholesky and Singular Value Decompositions). Systematic methods applicable in high dimensions and techniques commonly used in scientific computing are emphasized. Students enrolled in the graduate level STAT 30750 will have additional work in assignments, exams, and projects including applications of matrix algebra in statistics and numerical computations implemented in Matlab or R. Some programming exercises will appear as optional work for students enrolled in the undergraduate level STAT 24300.

Terms Offered: Autumn

Prerequisite(s): Multivariate calculus (MATH 15910 or MATH 16300 or MATH 16310 or MATH 19520 or MATH 20000 or MATH 20500 or MATH 20510 or MATH 20900 or PHYS 22100 or equivalent). Previous exposure to linear algebra is helpful.

Equivalent Course(s): STAT 24300

STAT 30800. Advanced Statistical Inference II. 100 Units.

This course will discuss the following topics in high-dimensional statistical inference: random matrix theory and asymptotics of its eigen-decompositions, estimation and inference of high-dimensional covariance matrices, large dimensional factor models, multiple testing and false discovery control and high-dimensional semiparametrics. On the methodological side, probability inequalities, including exponential, Nagaev, and Rosenthal-type inequalities will be introduced.

Terms Offered: To be determined; may not be offered in 2019-2020.

Prerequisite(s): STAT 30400, STAT 30100, and STAT 30210, or consent of instructor

STAT 30810. High Dimensional Time Series Analysis. 100 Units.

This course will include lectures on the following topics: review of asymptotics for low dimensional time series analysis (linear and nonlinear processes; nonparametric methods; spectral and time domain approaches); covariance, precision, and spectral density matrix estimation for high dimensional time series; factor models; estimation of high dimensional vector autoregressive processes; prediction; and high dimensional central limit theorems under dependence.

Terms Offered: To be determined

STAT 30850. Multiple Testing, Modern Inference, and Replicability. 100 Units.

This course examines the problems of multiple testing and statistical inference from a modern point of view. High-dimensional data is now common in many applications across the biological, physical, and social sciences. With this increased capacity to generate and analyze data, classical statistical methods may no longer ensure the reliability or replicability of scientific discoveries. We will examine a range of modern methods that provide statistical inference tools in the context of modern large-scale data analysis. The course will have weekly assignments as well as a final project, both of which will include both theoretical and computational components.

Terms Offered: Winter

Prerequisite(s): STAT 24400 or STAT 24410 or consent of instructor.

Equivalent Course(s): STAT 27850

STAT 30900. Mathematical Computation I: Matrix Computation Course. 100 Units.

This is an introductory course on numerical linear algebra, which is quite different from linear algebra. We will be much less interested in algebraic results that follow from axiomatic definitions of fields and vector spaces but much more interested in analytic results that hold only over the real and complex fields. The main objects of interest are real- or complex-valued matrices, which may come from differential operators, integral transforms, bilinear and quadratic forms, boundary and coboundary maps, Markov chains, correlations, DNA microarray measurements, movie ratings by viewers, friendship relations in social networks, etc. Numerical linear algebra provides the mathematical and algorithmic tools for analyzing these matrices. Topics covered: basic matrix decompositions LU, QR, SVD; Gaussian elimination and LU/LDU decompositions; backward error analysis, Gram-Schmidt orthogonalization and QR/complete orthogonal decompositions; solving linear systems, least squares, and total least squares problem; low-rank matrix approximations and matrix completion. We shall also include a brief overview of stationary and Krylov subspace iterative methods; eigenvalue and singular value problems; and sparse linear algebra.

Terms Offered: Autumn

Prerequisite(s): Linear algebra (STAT 24300 or equivalent) and some previous experience with statistics.

Equivalent Course(s): CMSC 37810, CAAM 30900

STAT 31010. Mathematical Computation II: Optimization. 100 Units.

The course covers the fundamentals of convex optimization with applications to problems in science, medicine, and engineering, including linear programming, geometric programming, second-order cone programming, semidefinite programming, and linearly and quadratically constrained quadratic programming. The last part of the course examines the generalized moment problem, a singularly powerful technique that allows one to encode all kinds of problems (in probability, statistics, control theory, financial mathematics, signal processing, etc.) and solve them or their relaxations as convex optimization problems.

Terms Offered: Winter

Prerequisite(s): STAT 30900/CMSC 37810, a familiarity with the basics of probability theory.

STAT 31015. Mathematical Computation IIA: Convex Optimization. 100 Units.

The course will cover techniques in unconstrained and constrained convex optimization and a practical introduction to convex duality. The course will focus on (1) formulating and understanding convex optimization problems and studying their properties; (2) understanding and using the dual; and (3) presenting and understanding optimization approaches, including interior point methods and first order methods for non-smooth problems. Examples will be mostly from data fitting, statistics and machine learning.

Instructor(s): Nathan Srebro Terms Offered: Winter

Prerequisite(s): STAT 30900/CMSC 37810

Equivalent Course(s): TTIC 31070, CAAM 31015, CMSC 35470, BUSN 36903

STAT 31020. Mathematical Computation IIB: Nonlinear Optimization. 100 Units.

This course covers the fundamentals of continuous optimization with an emphasis on algorithmic and computational issues. The course starts with the study of optimality conditions and techniques for unconstrained optimization, covering line search and trust region approaches, and addressing both factorization-based and iterative methods for solving the subproblems. The Karush-Kuhn-Tucker conditions for general constrained and nonconvex optimization are then discussed and used to define algorithms for constrained optimization including augmented Lagrangian, interior-point and (if time permits) sequential quadratic programming. Iterative methods for large sparse problems, with an emphasis on projected gradient methods, will be presented. Several substantial programming projects (using MATLAB and aiming at both data-intensive and physical sciences applications) are completed during the course.

Terms Offered: Winter

Prerequisite(s): STAT 30900/CMSC 37810

STAT 31060. Further Mathematical Computation: Matrix Computation and Optimization. 100 Units.

This course is primarily about iterative algorithms in matrix computation. For linear systems and least squares problems, we will discuss stationary methods (Jacobi, Gauss-Seidel, SOR), semi-iterative methods (Richardson, steepest descent, Chebyshev, conjugate gradient), and Krylov subspace methods (MINRES, SYMMLQ, LSQR, GMRES, QMR, BiCG). We will cover some basic ideas for preconditioning and stopping conditions. For eigenvalue problems, we will discuss direct (Givens and Householder) and iterative (Lanczos and Arnoldi) methods for reducing a matrix into tridiagonal and Hessenberg forms, as well as power, inverse power, Rayleigh quotient, Jacobi, Jacobi-Davidson, and Francis QR algorithms for extraction of eigenvalues/eigenvectors. Lastly, we will discuss algorithms for generalized and quadratic eigenvalue problems (QZ algorithm) as well as for singular value decomposition (Golub-Kahan and Golub-Reinsch).

Terms Offered: To be determined

STAT 31080. Numerical Analysis for Statistics and Applied Mathematics. 100 Units.

This is a beginning graduate course on selected numerical methods used in modern statistics and applied mathematics. Topics include fundamentals of ODEs and PDEs, quadratures, and Monte Carlo methods. Methods of analysis are introduced including error measures and different notions of numerical convergence. Newton's method, convex optimization and elements of nonconvex optimization are covered, together with implementations in selected software packages.

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): STAT 24300 or background in linear algebra.

STAT 31100. Mathematical Computation III: Numerical Methods for PDE's. 100 Units.

The first part of this course introduces basic properties of PDE's; finite difference discretizations; and stability, consistency, convergence, and Lax's equivalence theorem. We also cover examples of finite difference schemes; simple stability analysis; convergence analysis and order of accuracy; consistency analysis and errors (i.e., dissipative and dispersive errors); and unconditional stability and implicit schemes. The second part of this course includes solution of stiff systems in 1, 2, and 3D; direct vs. iterative methods (i.e., banded and sparse LU factorizations); and Jacobi, Gauss-Seidel, multigrid, conjugate gradient, and GMRES iterations.

Terms Offered: Spring

Prerequisite(s): Some prior exposure to differential equations and linear algebra

Equivalent Course(s): CAAM 31100, CMSC 37812, MATH 38309

STAT 31140. Computational Imaging: Theory and Methods. 100 Units.

Computational imaging refers to the process of forming images from data where computation plays an integral role. This course will cover basic principles of computational imaging, including image denoising, regularization techniques, linear inverse problems and optimization-based solvers, and data acquisition models associated with tomography and interferometry. Specific topics may include patch-based denoising, sparse coding, total variation, dictionary learning, computational photography, compressive imaging, inpainting, and deep learning for image reconstruction.

Instructor(s): R. Willett Terms Offered: Spring

Equivalent Course(s): CMSC 31140, CAAM 31140

STAT 31150. Inverse Problems and Data Assimilation. 100 Units.

This class provides an introduction to Bayesian Inverse Problems and Data Assimilation, emphasizing the theoretical and algorithmic inter-relations between both subjects. We will study Gaussian approximations and optimization and sampling algorithms, including a variety of Kalman-based and particle filters as well as Markov chain Monte Carlo schemes designed for high-dimensional inverse problems.

Instructor(s): D. Sanz-Alonso Terms Offered: Autumn

Prerequisite(s): Familiarity with calculus, linear algebra, and probability/statistics at the level of STAT 24400 or STAT 24410. Some knowledge of ODEs may also be helpful.

Equivalent Course(s): CAAM 31150

STAT 31200. Introduction to Stochastic Processes I. 100 Units.

This course introduces stochastic processes not requiring measure theory. Topics include branching processes, recurrent events, renewal theory, random walks, Markov chains, Poisson, and birth-and-death processes.

Instructor(s): Staff Terms Offered: Autumn or Winter

Prerequisite(s): STAT 25100 and MATH 20500; STAT 30400 or consent of instructor

Note(s): Students with credit for MATH 235 should not enroll in STAT 312.

STAT 31210. Applied Functional Analysis. 100 Units.

This course will cover classical topics of applied functional analysis: description of functional spaces such as Banach spaces and Hilbert spaces; properties of linear operators acting on such spaces, compactness and spectral decomposition of compact operators; and applications to ordinary and partial differential equations.

Terms Offered: Autumn

Equivalent Course(s): CAAM 31210

STAT 31220. Partial Differential Equations. 100 Units.

This is an introduction to the theory of partial differential equations covering representation formulas and regularity theory for elliptic, parabolic, and hyperbolic equations; the method of characteristics; variational formulations for second-order linear elliptic equations; and the calculus of variations.

Terms Offered: Winter

Equivalent Course(s): CAAM 31220

STAT 31230. Inverse Problems in Imaging. 100 Units.

This course focuses on the mathematical description of many inverse problems that appear in geophysical and medical imaging: X-ray tomography, ultrasound tomography and seismic imaging, optical and electrical tomography, as well as more recent imaging modalities such as elastography and photo-acoustic tomography. Seen as reconstructions of constitutive parameters in differential equations from redundant boundary measurements, these continuous models tell us which parameters may or may not be reconstructed, and with which stability with respect to measurement errors. Time-permitting, we will also consider general methodologies to perform such reconstructions (regularization, optimization, Bayesian framework). Some knowledge of PDE and Fourier transforms is recommended.

Terms Offered: Spring

Prerequisite(s): STAT 31220

Equivalent Course(s): CAAM 31230

STAT 31300. Introduction to Stochastic Processes II. 100 Units.

Topics include continuous-time Markov chains, Markov chain Monte Carlo, discrete-time martingales, and Brownian motion and diffusions. Our emphasis is on defining the processes and calculating or approximating various related probabilities. The measure theoretic aspects of these processes are not covered rigorously.

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): STAT 31200 or consent of instructor

STAT 31410. Applied Dynamical Systems. 100 Units.

This course is an introduction to dynamical systems for analysis of nonlinear ordinary differential equations. The focus is on methods of bifurcation theory, canonical examples of forced nonlinear oscillators, fast-slow systems, and chaos. Examples will be drawn from mathematical modeling of physical and biological systems. While geometric perspectives will be emphasized, assignments will also introduce asymptotic methods for analysis and use numerical simulation as an exploratory tool. This course assumes students have a background in ordinary differential equations and linear algebra at the undergraduate level and an interest in mathematical modeling for applications.

Instructor(s): M. Silber Terms Offered: Spring

Prerequisite(s): ODEs and/or dynamical systems at an undergraduate level or consent of instructor.

Equivalent Course(s): CAAM 31410

STAT 31450. Applied Partial Differential Equations. 100 Units.

Partial differential equations (PDEs) are used to model applications in a wide variety of fields: fluid dynamics, optics, atomic and plasma physics, elasticity, chemical reactions, climate modeling, stock markets, etc. The study of their mathematical structure and solution methods remains at the forefront of applied mathematics. The course concentrates on deriving an important set of examples of PDEs from simple physical models, which are often closely related to those describing more complex physical systems. The course will also cover analytical methods and tools for solving these PDEs; such as separation of variables, Fourier series and transforms, Sturm-Liouville theory, and Green's functions. The course is suitable for graduate students and advanced undergraduates in science, engineering, and applied mathematics.

Terms Offered: Spring

Prerequisite(s): Instructor consent.

Equivalent Course(s): CAAM 31450

STAT 31511. Monte Carlo Simulation. 100 Units.

This class primarily concerns the design and analysis of Monte Carlo sampling techniques for the estimation of averages with respect to high dimensional probability distributions. Standard simulation tools such as importance sampling, Metropolis-Hastings, Langevin dynamics, and hybrid Monte Carlo will be introduced along with basic theoretical concepts regarding their convergence to equilibrium. The class will explore applications of these methods in Bayesian statistics and machine learning as well as to other simulation problems arising in the physical and biological sciences. Particular attention will be paid to the major complicating issues like conditioning (with analogies to optimization) and rare events and methods to address them.

Terms Offered: Autumn. Not offered in 2018-2019.

Prerequisite(s): Multivariate calculus and linear algebra

STAT 31521. Applied Stochastic Processes. 100 Units.

This course concerns the estimation of the dynamic properties of time-dependent stochastic systems. The class will begin with an introduction to the numerical simulation of continuous time Markov processes including the discretization of stochastic (and ordinary) differential equations. Problems associated with multiple time scales will be discussed along with methods to address them (implicit discretizations, multiscale methods and dimensional reduction). The class will also cover interacting particle methods and other techniques for the efficient simulation of dynamical rare events.

Terms Offered: Winter. Not offered in 2019-2020.

Prerequisite(s): Multivariate calculus and linear algebra

STAT 31550. Uncertainty Quantification. 100 Units.

This course will cover mathematical, statistical, and algorithmic questions that arise at the interface of complex modeling and data processing. Emphasis will be given to characterizing and quantifying the uncertainties inherent in the use of models and to exploring principled ways to reduce said uncertainty by the use of data. Specific topics include Bayesian inverse problems and data assimilation.

Terms Offered: Winter

Prerequisite(s): STAT 30200 or consent of instructor

STAT 31700. Introduction to Probability Models. 100 Units.

This course introduces stochastic processes as models for a variety of phenomena in the physical and biological sciences. Following a brief review of basic concepts in probability, we introduce stochastic processes that are popular in applications in sciences (e.g., discrete time Markov chain, the Poisson process, continuous time Markov process, renewal process and Brownian motion).

Instructor(s): Staff Terms Offered: May be offered in Autumn or Winter

Prerequisite(s): STAT 24400 or STAT 24410 or STAT 25100 or STAT 25150

Equivalent Course(s): STAT 25300

STAT 31900. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverse-probability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for cross-section and panel data, and fixed effects model. Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005 is a prerequisite. This course is a prerequisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong, K. Yamaguchi Terms Offered: Winter

Prerequisite(s): Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005

Note(s): CHDV Distribution: M; M

Equivalent Course(s): SOCI 30315, PBHS 43201, CHDV 30102, CHDV 20102, PLSC 30102, MACS 51000

STAT 32400. Probability and Statistics. 100 Units.

This Ph.D.-level course (in addition to BUSF 41902/STAT 32500) provides a thorough introduction to Classical and Bayesian statistical theory. The two quarter sequence provides the necessary probability and statistical background for many of the advanced courses in the Chicago Booth curriculum. The central topic is probability. Basic concepts in probability are covered. An introduction to martingales is given. Homework assignments are given throughout the quarter. Course description is subject to change. Please visit the Booth portal and search via the course search tool for the most up to date information: http://boothportal.chicagobooth.edu/portal/server.pt/community/course_search

Terms Offered: Autumn

Equivalent Course(s): BUSN 41901

STAT 32900. Applied Multivariate Analysis. 100 Units.

The course will introduce the basic theory and applications for analyzing multidimensional data. Topics include multivariate distributions, Gaussian models, multivariate statistical inferences and applications, classifications, cluster analysis, and dimension reduction methods. Course content is subject to change in order to keep the contents up-to-date with new development in multivariate statistical techniques. The course is offered in alternate years by the Statistics Department (S15, S17, ...) and the Booth Business School (S16, S18, ...). When the course is offered by the Booth school, please visit the Booth portal and search via the course search tool: http://boothportal.chicagobooth.edu/portal/server.pt/community/course_search for the most up to date information. Equivalent Course(s): BUSN 41912

STAT 32940. Multivariate Data Analysis via Matrix Decompositions. 100 Units.

This course is about using matrix computations to infer useful information from observed data. One may view it as an "applied" version of Stat 30900 although it is not necessary to have taken Stat 30900; the only prerequisite for this course is basic linear algebra. The data analytic tools that we will study will go beyond linear and multiple regression and often fall under the heading of "Multivariate Analysis" in Statistics. These include factor analysis, correspondence analysis, principal components analysis, multidimensional scaling, linear discriminant analysis, canonical correlation analysis, cluster analysis, etc. Understanding these techniques require some facility with matrices in addition to some basic statistics, both of which the student will acquire during the course. Program elective.

Instructor(s): L. Lim Terms Offered: Autumn

Equivalent Course(s): FINM 33180, CAAM 32940

STAT 32950. Multivariate Statistical Analysis: Applications and Techniques. 100 Units.

This course focuses on applications and techniques for analysis of multivariate and high dimensional data. Beginning subjects cover common multivariate techniques and dimension reduction, including principal component analysis, factor model, canonical correlation, multi-dimensional scaling, discriminant analysis, clustering, and correspondence analysis (if time permits). Further topics on statistical learning for high dimensional data and complex structures include penalized regression models (LASSO, ridge, elastic net), sparse PCA, independent component analysis, Gaussian mixture model, Expectation-Maximization methods, and random forest. Theoretical derivations will be presented with emphasis on motivations, applications, and hands-on data analysis.

Terms Offered: Spring

Prerequisite(s): (STAT 24300 or MATH 20250) and (STAT 24500 or STAT 24510). Graduate students in Statistics or Financial Mathematics can enroll without prerequisites.

Note(s): Linear algebra at the level of STAT 24300. Knowledge of probability and statistical estimation techniques (e.g. maximum likelihood and linear regression) at the level of STAT 24400-24500.

Equivalent Course(s): STAT 24620

STAT 33100. Sample Surveys. 100 Units.

This course covers random sampling methods; stratification, cluster sampling, and ratio estimation; and methods for dealing with nonresponse and partial response.

Instructor(s): K. Wolter Terms Offered: Autumn

Prerequisite(s): Consent of instructor

STAT 33211. Mediation, Moderation, and Spillover Effects. 100 Units.

This course is designed for graduate students and advanced undergraduate students from social sciences, statistics, health studies, public policy, and social services administration who will be or are currently involved in quantitative research. Research questions about why an intervention works, for whom, under what conditions, and whether one individual's treatment could affect other individuals' outcomes are often key to the advancement of scientific knowledge yet pose major analytic challenges. This course introduces cutting-edge theoretical concepts and methodological approaches with regard to mediation of intervention effects, moderated intervention effects, and spillover effects in a variety of settings. The course content is organized around six case studies. In each case, students will be involved in critical examinations of a working paper currently under review. Background readings will reflect the latest developments and controversies. Weekly labs will provide supplementary tutorials and hands-on experiences with mediation and moderation analyses. All students are expected to contribute to the knowledge building in class through participation in discussions. Students are encouraged to form study groups, while the two written assignments are to be finished and graded on an individual basis.

Instructor(s): G. Hong Terms Offered: Spring

Note(s): CHDV Distribution, Methods

Equivalent Course(s): CHDV 32411, PSYC 32411, PBPL 29411, SOCI 30318, CCTS 32411

STAT 33500. Time-series Analysis for Forecasting and Model Building. 100 Units.

Forecasting plays an important role in business planning and decisionmaking. This Ph.D.-level course discusses time series models that have been widely used in business and economic data analysis and forecasting. Both theory and methods of the models are discussed. Real examples are used throughout the course to illustrate applications. The topics covered include: (1) stationary and unit-root non-stationary processes; (2) linear dynamic models, including Autoregressive Moving Average models; (3) model building and data analysis; (4) prediction and forecasting evaluation; (5) asymptotic theory for estimation including unit-root theory; (6) models for time varying volatility; (7) models for time varying correlation including Dynamic Conditional Correlation and time varying factor models.; (9) state-space models and Kalman filter; and (10) models for high frequency data. Course description is subject to change. Please visit the Booth portal and search via the course search tool for the most up to date information: http://boothportal.chicagobooth.edu/portal/server.pt/community/course_search/

Prerequisite(s): BUSF 41901/STAT 32400 or instructor consent.

Equivalent Course(s): BUSN 41910

STAT 33600. Time Dependent Data. 100 Units.

This course considers the modeling and analysis of data that are ordered in time. The main focus is on quantitative observations taken at evenly spaced intervals and includes both time-domain and spectral approaches.

Instructor(s): Staff

Prerequisite(s): STAT 24500 w/B- or better or STAT 24510 w/C+ or better is required; alternatively STAT 22400 w/B- or better and exposure to multivariate calculus (MATH 16300 or MATH 16310 or MATH 19520 or MATH 20000 or MATH 20500 or MATH 20510 or MATH 20800). Graduate students in Statistics or Financial Mathematics can enroll without prerequisites. Some previous exposure to Fourier series is helpful but not required.

Equivalent Course(s): STAT 26100

STAT 33700. Multivariate Time Series Analysis. 100 Units.

This course investigates the dynamic relationships between variables. It starts with linear relationships between two variables, including distributed-lag models and detection of unidirectional dependence (Granger causality). Nonlinear and time-varying relationships are also discussed. Dynamic models discussed include vector autoregressive models, vector autoregressive moving-average models, multivariate regression models with time series errors, co-integration and error-correction models, state-space models, dynamic factor models, and multivariate volatility models such as BEKK, Dynamic conditional correlation, and copula-based models. The course also addresses impulse response function, structural specification, co-integration tests, least squares estimates, maximum likelihood estimates, principal component analysis, asymptotic principal component analysis, principal volatility components, recursive estimation, and Markov Chain Monte Carlo estimation. Empirical data analysis is an integral part of the course. Students are expected to analyze many real data sets. The main software used in the course is the MTS package in R, but students may use their own software if preferred.

Equivalent Course(s): BUSN 41914

STAT 33910. Financial Statistics: Time Series, Forecasting, Mean Reversion, and High Frequency Data. 100 Units.

This course is an introduction to the econometric analysis of high-frequency financial data. This is where the stochastic models of quantitative finance meet the reality of how the process really evolves. The course is focused on the statistical theory of how to connect the two, but there will also be some data analysis. With some additional statistical background (which can be acquired after the course), the participants will be able to read articles in the area. The statistical theory is longitudinal, and it thus complements cross-sectional calibration methods (implied volatility, etc.). The course also discusses volatility clustering and market microstructure.

Terms Offered: Winter

Prerequisite(s): STAT 39000/FINM 34500 (may be taken concurrently), also some statistics/econometrics background as in STAT 24400–24500, or FINM 33150 and FINM 33400, or equivalent, or consent of instructor.

Equivalent Course(s): FINM 33170

STAT 34000. Gaussian Processes. 100 Units.

Gaussian processes are commonly used in statistical models for spatial and spatial-temporal processes and for computer model output. They are also frequently used as building blocks for non-Gaussian process models. This course will begin with an overview of the theory for Gaussian processes, with a focus on stationary processes and their associated spectral properties and how these relate to problems of spatial interpolation. With this foundation, we will proceed to discuss a variety of approaches to developing useful classes of Gaussian process models, with a focus on spatial-temporal processes. Computational problems and possible solutions for fitting Gaussian process models to large, irregularly observed datasets will form the last part of the class. Applications to environmental monitoring data, computer model output and possibly other areas will be considered. This class is aimed at PhD students in Statistics, but may be accessible to others with a strong background in Statistics (say, STAT 24500 and 34300), some background in analysis and previous exposure to stochastic processes.

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): STAT 24500 and STAT 34300, or some background in analysis and previous exposure to stochastic processes.

STAT 34300. Applied Linear Stat Methods. 100 Units.

This course introduces the theory, methods, and applications of fitting and interpreting multiple regression models. Topics include the examination of residuals, the transformation of data, strategies and criteria for the selection of a regression equation, nonlinear models, biases due to excluded variables and measurement error, and the use and interpretation of computer package regression programs. The theoretical basis of the methods, the relation to linear algebra, and the effects of violations of assumptions are studied. Techniques discussed are illustrated by examples involving both physical and social sciences data.

Terms Offered: Autumn

Prerequisite(s): Graduate student in Statistics or instructor consent.

Note(s): Students who need it should take Linear Algebra (STAT 24300 or equivalent) concurrently.

STAT 34700. Generalized Linear Models. 100 Units.

This applied course covers factors, variates, contrasts, and interactions; exponential-family models (i.e., variance function); definition of a generalized linear model (i.e., link functions); specific examples of GLMs; logistic and probit regression; cumulative logistic models; log-linear models and contingency tables; inverse linear models; Quasi-likelihood and least squares; estimating functions; and partially linear models.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): STAT 34300 or consent of instructor

STAT 34800. Modern Methods in Applied Statistics. 100 Units.

This course covers latent variable models and graphical models; definitions and conditional independence properties; Markov chains, HMMs, mixture models, PCA, factor analysis, and hierarchical Bayes models; methods for estimation and probability computations (EM, variational EM, MCMC, particle filtering, and Kalman Filter); undirected graphs, Markov Random Fields, and decomposable graphs; message passing algorithms; sparse regression, Lasso, and Bayesian regression; and classification generative vs. discriminative. Applications will typically involve high-dimensional data sets, and algorithmic coding will be emphasized.

Terms Offered: Spring

STAT 34900. Data Analysis Project. 100 Units.

The first half of this class will focus on general principles of data analysis and how to report the results of an analysis, including taking account of the context of the data, making informative and clear visual displays, developing relevant statistical models and describing them clearly, and carrying out diagnostic procedures to assess the appropriateness of adopted models. The second half of the class will focus on individualized data analysis projects. Students working on a data analysis project in another context (e.g., for an MS paper or for consulting) may, with proper permission, use that project for this course as well. It is intended that some projects in this class may develop into MS papers.

Terms Offered: To be determined

Prerequisite(s): STAT 34700 or permission of instructor

STAT 35201. Introduction to Clinical Trials. 100 Units.

This course will review major components of clinical trial conduct, including the formulation of clinical hypotheses and study endpoints, trial design, development of the research protocol, trial progress monitoring, analysis, and the summary and reporting of results. Other aspects of clinical trials to be discussed include ethical and regulatory issues in human subjects research, data quality control, meta-analytic overviews and consensus in treatment strategy resulting from clinical trials, and the broader impact of clinical trials on public health.

Instructor(s): Y. Ji Terms Offered: Winter

Prerequisite(s): PBHS 32100 or STAT 22000; Introductory Statistics or Consent of Instructor

Equivalent Course(s): PBHS 32901

STAT 35400. Gene Regulation. 100 Units.

This course covers the fundamental theory of gene expression in prokaryotes and eukaryotes through lectures and readings in the primary literature. Natural and synthetic genetic systems arising in the context of *E. coli* physiology and *Drosophila* development will be used to illustrate fundamental biological problems together with the computational and theoretical tools required for their solution. These tools include large-scale optimization, image processing, ordinary and partial differential equations, the chemical Langevin and Fokker-Planck equations, and the chemical master equation. A central theme of the class is the art of identifying biological problems which require theoretical analysis and choosing the correct mathematical framework with which to solve the problem.

Terms Offered: To be determined; may not offered in 2019-2020.

Prerequisite(s): Consent of instructor

Equivalent Course(s): MGCB 35401, ECEV 35400, CAAM 35400

STAT 35410. Genomic Evolution I. 100 Units.

Canalization, a unifying biological principle first enunciated by Conrad Waddington in 1942, is an idea that has had tremendous intellectual influence on developmental biology, evolutionary biology, and mathematics. In this course we will explore canalization in all three contexts through extensive reading and discussion of both the classic and modern primary literature. We intend this exploration to raise new research problems which can be evaluated for further understanding. We encourage participants to present new ideas in this area for comment and discussion.

Instructor(s): M. Long, J. Reinitz, and C-I. Wu Terms Offered: TBD. not offered in 2018-19

Equivalent Course(s): ECEV 35901, EVOL 35901

STAT 35420. Stochastic Processes in Gene Regulation. 100 Units.

This didactic course covers the fundamentals of stochastic chemical processes as they arise in the study of gene regulation. The central object of study is the Chemical Master Equation and its coarse-grainings at the Langevin/Fokker-Planck, linear noise, and deterministic levels. We will consider both mathematical and computational approaches in contexts where there are both single and multiple deterministic limits.

Instructor(s): J. Reinitz Terms Offered: To be determined; may not be offered in 2019-2020.

Prerequisite(s): Consent of instructor.

Equivalent Course(s): MGCB 35420, ECEV 35420, CAAM 35420

STAT 35450. Fundamentals of Computational Biology: Models and Inference. 100 Units.

Covers key principles in probability and statistics that are used to model and understand biological data. There will be a strong emphasis on stochastic processes and inference in complex hierarchical statistical models. Topics will vary but the typical content would include: Likelihood-based and Bayesian inference, Poisson processes, Markov models, Hidden Markov models, Gaussian Processes, Brownian motion, Birth-death processes, the Coalescent, Graphical models, Markov processes on trees and graphs, Markov Chain Monte Carlo.

Instructor(s): J. Novembre, M. Stephens Terms Offered: Winter

Prerequisite(s): STAT 244

Equivalent Course(s): HGEN 48600

STAT 35460. Fundamentals of Computational Biology: Algorithms and Applications. 100 Units.

This course will cover principles of data structure and algorithms, with emphasis on algorithms that have broad applications in computational biology. The specific topics may include dynamic programming, algorithms for graphs, numerical optimization, finite-difference, schemes, matrix operations/factor analysis, and data management (e.g. SQL, HDF5). We will also discuss some applications of these algorithms (as well as commonly used statistical techniques) in genomics and systems biology, including genome assembly, variant calling, transcriptome inference, and so on.

Instructor(s): Xin He, Mengjie Chen Terms Offered: Spring

Equivalent Course(s): HGEN 48800

STAT 35490. Introduction to Statistical Genetics. 100 Units.

As a result of technological advances over the past few decades, there is a tremendous wealth of genetic data currently being collected. These data have the potential to shed light on the genetic factors influencing traits and diseases, as well as on questions of ancestry and population history. The aim of this course is to develop a thorough understanding of probabilistic models and statistical theory and methods underlying analysis of genetic data, focusing on problems in complex trait mapping, with some coverage of population genetics. Although the case studies are all in the area of statistical genetics, the statistical inference topics, which will include likelihood-based inference, linear mixed models, and restricted maximum likelihood, among others, are widely applicable to other areas. No biological background is needed, but a strong foundation in statistical theory and methods is assumed.

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): STAT 24500 or STAT 24510

Note(s): STAT 26300 can count as either a List A or List B elective in the Statistics major.

Equivalent Course(s): STAT 26300

STAT 35500. Statistical Genetics. 100 Units.

This is an advanced course in statistical genetics. We will take an in-depth look at statistical methods development in recent genetics literature, with the aim of achieving a deep understanding of the modeling approaches and assumptions, statistical principles, mathematical theorems, computational issues, and data analytic approaches underlying the methods. The goal is for the student to be able to ultimately apply the principles learned to future statistical methods development for genetic data analysis. This is a discussion course and student presentations will be required. Topics depend on the interests of the participants and will be based on recent published literature. Topics may include, but are not limited to, statistical problems in genetic association mapping, population genetics, integration of different types of genetic data, and genetic models for complex traits. The course material changes every year, and the course may be repeated for credit.

Terms Offered: Spring

Prerequisite(s): Either HGEN 47100 or both STAT 24400 and 24500. Students without these prerequisites may enroll on a P/NP basis with consent of the instructor.

STAT 35700. Epidemiologic Methods. 100 Units.

This course expands on the material presented in "Principles of Epidemiology," further exploring issues in the conduct of epidemiologic studies. The student will learn the application of both stratified and multivariate methods to the analysis of epidemiologic data. The final project will be to write the "specific aims" and "methods" sections of a research proposal on a topic of the student's choice.

Instructor(s): B. Chiu Terms Offered: Winter

Prerequisite(s): PBHS 30700 or PBHS 30900 or PBHS 30910 AND PBHS 32400 or applied statistics courses through multivariate regression.

Equivalent Course(s): PBHS 31001

STAT 35800. Statistical Applications. 100 Units.

This course provides a transition between statistical theory and practice. The course will cover statistical applications in medicine, mental health, environmental science, analytical chemistry, and public policy. Lectures are oriented around specific examples from a variety of content areas. Opportunities for the class to work on interesting applied problems presented by U of C faculty will be provided. Although an overview of relevant statistical theory will be presented, emphasis is on the development of statistical solutions to interesting applied problems.

Instructor(s): R. Gibbons Terms Offered: Autumn

Prerequisite(s): PBHS 32700/STAT 22700 or STAT 34700 or consent of instructor.

Equivalent Course(s): PBHS 33500

STAT 35920. Applied Bayesian Modeling and Inference. 100 Units.

Course begins with basic probability and distribution theory, and covers a wide range of topics related to Bayesian modeling, computation, and inference. Significant amount of effort will be directed to teaching students on how to build and apply hierarchical models and perform posterior inference. The first half of the course will be focused on basic theory, modeling, and computation using Markov chain Monte Carlo methods, and the second half of the course will be about advanced models and applications. Computation and application will be emphasized so that students will be able to solve real-world problems with Bayesian techniques.

Instructor(s): Y. Ji Terms Offered: TBD

Prerequisite(s): STAT 24400 and STAT 24500 or master level training in statistics.

Equivalent Course(s): PBHS 43010

STAT 36350. Algorithms for Sequential Estimation. 100 Units.

The course objective is to present introductory, foundational, and advanced topics in sequential parameter and state estimation. The focus of the class is on algorithms for such problems, their properties, and computations involving them but some theoretical concepts of the underlying problems will also be presented. We will cover both discrete and continuous time problems. Computations in class and for homework will be carried out in Matlab. The topics covered are: 1. Review of optimization, linear algebra, probabilistic and dynamic systems concepts. Stability. Observability. 2. Sequential parameter estimation. Constrained, linear and nonlinear methods. 3. Sequential State Estimation. Kalman Filters(KF), including unscented, extended, and ensemble KF. Adaptive and Robust Methods. Particle Filters. Algorithmic and Numerical Stability. 4. Batch State Estimation. Smoothing. The Riccati Equation. Adjoint computations for problems with long horizons. Limited Memory Methods. 5. Optimal Control and Estimation Theory (if time permits). The estimation/control duality. Calculus of variations. Differential Equation Constraints. Pontryagin Optimality Conditions. Stochastic linear quadratic Gaussian control. Course website: <https://wiki.uchicago.edu/display/SE3/Sequential+Estimation+STAT+36350>

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): STAT 30900/CMSC 37810 or consent of instructor.

STAT 36600. Decision Theory. 100 Units.

This course covers statistical decision theory with examples drawn from modern high-dimensional and nonparametric estimation. Topics that will be covered include basic information theory, decision theory, asymptotic equivalence, Gaussian sequence model, sparse regression, model selection, aggregation, and large covariance matrix estimation. Lower bound techniques such as Bayes, Le Cam, and Fano's methods will be taught.

Terms Offered: Not offered in 2019-2020.

STAT 36700. History of Statistics. 100 Units.

This course covers topics in the history of statistics, from the eleventh century to the middle of the twentieth century. We focus on the period from 1650 to 1950, with an emphasis on the mathematical developments in the theory of probability and how they came to be used in the sciences. Our goals are both to quantify uncertainty in observational data and to develop a conceptual framework for scientific theories. This course includes broad views of the development of the subject and closer looks at specific people and investigations, including reanalyses of historical data.

Instructor(s): S. Stigler Terms Offered: Spring

Prerequisite(s): Prior statistics course

Equivalent Course(s): STAT 26700, CHSS 32900, HIPS 25600

STAT 36900. Applied Longitudinal Data Analysis. 100 Units.

Longitudinal data consist of multiple measures over time on a sample of individuals. This type of data occurs extensively in both observational and experimental biomedical and public health studies, as well as in studies in sociology and applied economics. This course will provide an introduction to the principles and methods for the analysis of longitudinal data. Whereas some supporting statistical theory will be given, emphasis will be on data analysis and interpretation of models for longitudinal data. Problems will be motivated by applications in epidemiology, clinical medicine, health services research, and disease natural history studies.

Instructor(s): D. Hedeker Terms Offered: Spring

Prerequisite(s): PBHS 32400/STAT 22400 or equivalent, and PBHS 32600/STAT 22600 or PBHS 32700/STAT 22700 or equivalent; or consent of instructor.

Equivalent Course(s): PBHS 33300

STAT 37400. Nonparametric Inference. 100 Units.

Nonparametric inference is about developing statistical methods and models that make weak assumptions. A typical nonparametric approach estimates a nonlinear function from an infinite dimensional space rather than a linear model from a finite dimensional space. This course gives an introduction to nonparametric inference, with a focus on density estimation, regression, confidence sets, orthogonal functions, random processes, and kernels. The course treats nonparametric methodology and its use, together with theory that explains the statistical properties of the methods.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): STAT 24400 or STAT 24410 w/B- or better is required; alternatively STAT 22400 w/B+ or better and exposure to multivariate calculus (MATH 16300 or MATH 16310 or MATH 19520 or MATH 20000 or MATH 20500 or MATH 20510 or MATH 20800) and linear algebra (MATH 19620 or MATH 20250 or STAT 24300 or equivalent). Master's students in Statistics can enroll without prerequisites.

Equivalent Course(s): STAT 27400

STAT 37601. Machine Learning and Large-Scale Data Analysis. 100 Units.

This course is an introduction to machine learning and the analysis of large data sets using distributed computation and storage infrastructure. Basic machine learning methodology and relevant statistical theory will be presented in lectures. Homework exercises will give students hands-on experience with the methods on different types of data. Methods include algorithms for clustering, binary classification, and hierarchical Bayesian modeling. Data types include images, archives of scientific articles, online ad clickthrough logs, and public records of the City of Chicago. Programming will be based on Python and R, but previous exposure to these languages is not assumed.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CMSC 15400 or CMSC 12200 and STAT 22200 or STAT 23400, or by consent.

Note(s): The prerequisites are under review and may change.

Equivalent Course(s): CMSC 25025

STAT 37710. Machine Learning. 100 Units.

This course provides hands-on experience with a range of contemporary machine learning algorithms, as well as an introduction to the theoretical aspects of the subject. Topics covered include: the PAC framework, Bayesian learning, graphical models, clustering, dimensionality reduction, kernel methods including SVMs, matrix completion, neural networks, and an introduction to statistical learning theory.

Terms Offered: Spring

Prerequisite(s): Consent of instructor

Equivalent Course(s): CMSC 35400, CAAM 37710

STAT 37790. Topics in Statistical Machine Learning. 100 Units.

"Topics in Statistical Machine Learning" is a second graduate level course in machine learning, assuming students have had previous exposure to machine learning and statistical theory. The emphasis of the course is on statistical methodology, learning theory, and algorithms for large-scale, high dimensional data. The selection of topics is influenced by recent research results, and students can take the course in more than one quarter.

Terms Offered: To be determined

Equivalent Course(s): CMSC 35425

STAT 37810. Statistical Computing A. 50 Units.

This course is an introduction to statistical programming in R. Students will learn how to design, write, debug and test functions by implementing several famous algorithms in statistics such as Gibbs Sampling and Expectation Maximization. A basic familiarity with R is needed, but no prior programming experience is required. The course will also introduce students to the use of version control with Git and consider the differences and similarities between R and Python.

Terms Offered: Autumn

Prerequisite(s): Instructor consent.

STAT 37820. Statistical Computing B. 50 Units.

Statistical Computing B focuses on common data technology used in statistical computing and broader data science. The course takes place in the second half of the autumn quarter, after STAT 37810 (Statistical Computing A). Topics include storage and accessing of large data; basic working knowledge of relational database and its querying language SQL; introduction to distributed file system and example usage of Hadoop; Python and its applications in text analysis; access and usage of high-performance computer clusters, rudimentary parallel computing, web data access. XML and Javascript may be used occasionally. A short introduction to SAS will be given if time permits. The main computing software will be Python with some R.

Terms Offered: Autumn

Prerequisite(s): Instructor consent. STAT 37810 recommended.

STAT 38100. Measure-Theoretic Probability I. 100 Units.

This course provides a detailed, rigorous treatment of probability from the point of view of measure theory, as well as existence theorems, integration and expected values, characteristic functions, moment problems, limit laws, Radon-Nikodym derivatives, and conditional probabilities.

Terms Offered: Winter

Prerequisite(s): STAT 30400 or consent of instructor

STAT 38300. Measure-Theoretic Probability III. 100 Units.

This course continues material covered in STAT 38100, with topics that include L_p spaces, Radon-Nikodym theorem, conditional expectation, and martingale theory.

Terms Offered: Spring

Prerequisite(s): STAT 38100

STAT 38510. Brownian Motion and Stochastic Calculus. 100 Units.

This is a rigorous introduction to the mathematical theory of Brownian motion and the corresponding integration theory (stochastic integration). This is material that all analysis graduate students should learn at some point whether or not they are immediately planning to use probabilistic techniques. It is also a natural course for more advanced math students who want to broaden their mathematical education and to increase their marketability for nonacademic positions. In particular, it is one of the most fundamental mathematical tools used in financial mathematics (although we will not discuss finance in this course). This course differs from the more applied STAT 39000 in that concepts are developed precisely and rigorously.

Terms Offered: Autumn

Prerequisite(s): STAT 38300; or MATH 31200, MATH 31300, and MATH 31400; or consent of instructor.

Equivalent Course(s): MATH 38511

STAT 38620. Social Networks, Probability, Learning, and Game Theory. 100 Units.

This is a research oriented topic course aimed at graduate students. We will first cover some basics of social networks including structure and analysis of such networks and models that abstract their basic properties. Then we will focus on some recent research on a few selected topics/models, and aim to discuss one representative example in each of the following topics: (1) Probabilistic models and statistical learning based on empirical observation; (2) Stochastic processes (such as spread of information) and game-theoretical behavior on social networks as well as corresponding optimization problems; (3) Connections with social choices relating to collective decision making; (4) Some algorithmic aspects of networks. The students should have solid knowledge in at least two of the following areas: (1) Probability theory (either 31200-31300 or 38100-38300). (2) Statistics (either 24400-24500-24610 or 30400-30100-30210). (3) Basic knowledge in game theory and algorithms. In addition, students should be comfortable with undergraduate linear algebra as well as elementary combinatorics.

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): Consent of instructor. Students need to be familiar with two out of the following three: probability (no need for measure theory)/statistics/game theory (at intro level).

STAT 38660. Random Planar Geometry. 100 Units.

This is a research topic course on certain aspects of random planar geometry. The two central models to be discussed are Liouville quantum gravity which arises from exponentiating a two-dimensional Gaussian free field, as well as uniform infinite planar triangulation/quadrangulation. We will mainly focus on the discrete perspectives of these models, but will also at times discuss the connections to the continuous counterparts. We will concentrate on the metric properties of these random surfaces (including geodesic distances and the electric resistances), as well as their connections to the random motion on these random surfaces.

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): Recommended 38100/38300 sequence, or experience with measure-theoretical probability.

STAT 39000. Stochastic Calculus. 100 Units.

The course starts with a quick introduction to martingales in discrete time, and then Brownian motion and the Ito integral are defined carefully. The main tools of stochastic calculus (Ito's formula, Feynman-Kac formula, Girsanov theorem, etc.) are developed. The treatment includes discussions of simulation and the relationship with partial differential equations. Some applications are given to option pricing, but much more on this is done in other courses. The course ends with an introduction to jump process (Levy processes) and the corresponding integration theory. Program requirement.

Instructor(s): G. Lawler
Terms Offered: Winter

Equivalent Course(s): FINM 34500

STAT 39800. Field Research. 300.00 Units.

This Summer Quarter course offers graduate students in the Statistics Department the opportunity to apply statistics knowledge that they have acquired to a real industry or business situation. During the summer quarter in which they are registered for the course, students complete a paid or unpaid internship of at least six weeks. Prior to the start of the work experience, students secure faculty consent for an independent study project to be completed during the internship quarter.

Terms Offered: Summer only

Prerequisite(s): Masters or PhD student in Statistics or Consent of instructor and faculty advisor.

STAT 39900. Masters Seminar: Statistics. 300.00 Units.

This course is for Statistics Master's students to carry out directed reading or guided work on topics related to their Master's papers.

Prerequisite(s): Masters or PhD student in Statistics

STAT 40100. Reading/Research: Statistics. 300.00 Units.

This course allows doctoral students to receive credit for advanced work related to their dissertation topics. Students register for one of the listed faculty sections with prior consent from the respective instructor. Students may work with faculty from other departments; however, they still must obtain permission from and register with one of the listed faculty members in the Department of Statistics.

Terms Offered: All quarters

Prerequisite(s): Masters or PhD student in Statistics or consent of instructor

STAT 41500-41600. High-Dimensional Statistics I-II.

These courses treat statistical problems where the number of variables is very large. Classical statistical methods and theory often fail in such settings. Modern research has begun to develop techniques that can be effective in high dimensions, and that can be understood theoretically. The first quarter introduces a range of statistical frameworks for finding low-dimensional structure in high-dimensional data, such as sparsity in regression, sparse graphical models, or low-rank structure. This quarter emphasizes methods for estimation and inference developed in these areas, along with theoretical analysis of their properties. The second quarter emphasizes foundational aspects of high-dimensional statistics, focusing on principles that are used across a range of problems and are likely to be relevant for methods developed in the future. Topics include "the curse of dimensionality," elements of random matrix theory, properties of high-dimensional covariance matrices, concentration of measure, dimensionality reduction techniques, and handling mis-specified models. The courses may be taken separately.

STAT 41500. High-Dimensional Statistics I. 100 Units.

These courses treat statistical problems where the number of variables is very large. Classical statistical methods and theory often fail in such settings. Modern research has begun to develop techniques that can be effective in high dimensions, and that can be understood theoretically. The first quarter introduces a range of statistical frameworks for finding low-dimensional structure in high-dimensional data, such as sparsity in regression, sparse graphical models, or low-rank structure. This quarter emphasizes methods for estimation and inference developed in these areas, along with theoretical analysis of their properties. The second quarter emphasizes foundational aspects of high-dimensional statistics, focusing on principles that are used across a range of problems and are likely to be relevant for methods developed in the future. Topics include "the curse of dimensionality," elements of random matrix theory, properties of high-dimensional covariance matrices, concentration of measure, dimensionality reduction techniques, and handling mis-specified models. The courses may be taken separately.

Terms Offered: Autumn. Not offered in 2019-2020.

Prerequisite(s): STAT 30100 and STAT 30400 and STAT 31015, or consent of instructor

STAT 41600. High-Dimensional Statistics II. 100 Units.

These courses treat statistical problems where the number of variables is very large. Classical statistical methods and theory often fail in such settings. Modern research has begun to develop techniques that can be effective in high dimensions, and that can be understood theoretically. The first quarter introduces a range of statistical frameworks for finding low-dimensional structure in high-dimensional data, such as sparsity in regression, sparse graphical models, or low-rank structure. This quarter emphasizes methods for estimation and inference developed in these areas, along with theoretical analysis of their properties. The second quarter emphasizes foundational aspects of high-dimensional statistics, focusing on principles that are used across a range of problems and are likely to be relevant for methods developed in the future. Topics include "the curse of dimensionality," elements of random matrix theory, properties of high-dimensional covariance matrices, concentration of measure, dimensionality reduction techniques, and handling mis-specified models. The courses may be taken separately.

Terms Offered: Spring. Not offered in 2019-2020.

Prerequisite(s): STAT 30100 or STAT 30400 or STAT 31015, or consent of instructor

STAT 41510. Bayesian Nonparametrics. 100 Units.

Bayesian nonparametric methods are increasingly important tools in machine learning and statistics. We will discuss nonparametric Bayesian approaches to mixture models, latent feature models, hierarchical models, network models, and high-dimensional regression models. Topics that will be covered include Dirichlet process, Chinese restaurant process, Pitman-Yor process, Indian buffet process, Gaussian process, and their computational techniques via Gibbs sampling and variational inference. Frequentist evaluations of posterior distributions will also be discussed in nonparametric and high-dimensional settings.

Instructor(s): C. Gao Terms Offered: Not offered in 2019-2020.

Prerequisite(s): STAT 30200

STAT 41520. Topics in Selective Inference. 100 Units.

This course will study the problem of selective inference where we would like to provide statistical guarantees about hypotheses or parameters whose definitions are influenced by our analysis of the same data set. Performing valid inference is challenging since we must find a way to condition on the outcome of the selection process which is not always simple to characterize. The course will discuss both recent advances and open problems in this field.

Instructor(s): R. Barber Terms Offered: Spring

Prerequisite(s): STAT 27850/30850 or STAT 30200 or consent of instructor

STAT 41600. High-Dimensional Statistics II. 100 Units.

These courses treat statistical problems where the number of variables is very large. Classical statistical methods and theory often fail in such settings. Modern research has begun to develop techniques that can be effective in high dimensions, and that can be understood theoretically. The first quarter introduces a range of statistical frameworks for finding low-dimensional structure in high-dimensional data, such as sparsity in regression, sparse graphical models, or low-rank structure. This quarter emphasizes methods for estimation and inference developed in these areas, along with theoretical analysis of their properties. The second quarter emphasizes foundational aspects of high-dimensional statistics, focusing on principles that are used across a range of problems and are likely to be relevant for methods developed in the future. Topics include "the curse of dimensionality," elements of random matrix theory, properties of high-dimensional covariance matrices, concentration of measure, dimensionality reduction techniques, and handling mis-specified models. The courses may be taken separately.

Terms Offered: Spring. Not offered in 2019-2020.

Prerequisite(s): STAT 30100 or STAT 30400 or STAT 31015, or consent of instructor

STAT 42510. Theoretical Neuroscience: Single Neuron Dynamics and Computation. 100 Units.

This course is the first part of a three-quarter sequence in theoretical/computational neuroscience. It will focus on mathematical models of single neurons. Topics will include: basic biophysical properties of neurons; Hodgkin-Huxley model for action potential generation; 2D models, phase-plane analysis, and bifurcations leading to action potential generation; integrate-and-fire-type models; noise; characterization of neuronal activity with stochastic inputs; spatially extended models; models of synaptic currents and synaptic plasticity; unsupervised learning; supervised learning; reinforcement learning.

Terms Offered: Not offered in 2018-2019.

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory

Equivalent Course(s): CPNS 35510

STAT 42520. Theoretical Neuroscience: Network Dynamics and Computation. 100 Units.

This course is the second part of a three-quarter sequence in theoretical/computational neuroscience. It will focus on mathematical models of networks of neurons. Topics will include: firing rate models for populations of neurons; spatially extended firing rate models; models of visual cortex; models of brain networks at different levels; characterization of properties of specific brain networks; models of networks of binary neurons; mean rates, correlations, reductions to rate models; learning in networks of binary neurons, associative memory models; models of networks of spiking neurons: asynchronous vs synchronous states; oscillations in networks of spiking neurons; learning in networks of spiking neurons; models of working memory; models of decision-making.

Terms Offered: Not offered in 2019-2020

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory, STAT 42510 or instructor consent.

Equivalent Course(s): CPNS 35520

STAT 42600. Theoretical Neuroscience: Statistics and Information Theory. 100 Units.

This course begins with an introduction to inference and statistical methods in data analysis. We then cover the two main sections of the course: I) Encoding and II) Decoding in single neurons and neural populations. The encoding section will cover receptive field analysis (STA, STC and non-linear methods such as maximally informative dimensions) and will explore linear-nonlinear-Poisson models of neural encoding as well as generalized linear models alongside newer population coding models. The decoding section will cover basic methods for inferring stimuli or behaviors from spike train data, including both linear and correlational approaches to population decoding. The course will use examples from real data (where appropriate) in the problem sets which students will solve using MATLAB.

Prerequisite(s): Prior exposure to basic calculus and probability theory, CPNS 35500 or instructor consent.

Equivalent Course(s): ORGB 42600, CPNS 35600

STAT 44100. Consulting In Statistics. 300.00 Units.

This seminar course is an internal training program for graduate students in Statistics. The primary goal is to expose the students to applications that involve statistical thinking and to have hands on experience on real world data. The projects are provided by researchers from the university community. Participating students form teams to work on selected projects under faculty guidance and to present their work to all student consultants and researcher clients.

STAT 45800. Workshop on Collaborative Research in Statistics, Computing, and Science. 100 Units.

This course aims to bring together researchers with expertise in statistics, computation, and basic sciences, to work together to produce a solution to a particular problem. The problem we will focus on is the following: how can we improve the way that statistical comparisons are performed? No knowledge of this problem is assumed: it will be introduced in full at the start of the class, together with an outline for an initial proposed approach to addressing the problem. In brief the motivation is as follows: Many new statistical methods are published without any software implementation, and without any comparisons with existing methods. Even when comparisons are made, usually the comparisons are performed by a single research group who has developed one of the methods, raising the concern that the comparison may unfairly favor this method. Indeed, this problem is almost inevitable, even if the authors are extremely fastidious: any research group will have different levels of expertise with different methods, and tend to be more effective in applying their own method. Indeed, getting a method to work well for a particular problem may in itself be a research project. On top of this, performing these kinds of comparisons is incredibly time-consuming: at a minimum one has to familiarize oneself with a range of software products, their input/output requirements, and their various run-time options; create an infrastructure for running them; and write comparison scripts.

Terms Offered: Not offered in 2019-2020.

Prerequisite(s): Consent of instructor

STAT 48100. Proseminar in Probability. 100 Units.

This course will explore topics of current research interest in probability theory and stochastic processes. Students will be expected to give presentations based on research articles chosen after consultation with the instructors.

Terms Offered: To be determined.

Prerequisite(s): Consent of instructor

STAT 70000. Advanced Study: Statistics. 300.00 Units.

Advanced Study: Statistics



THE DIVISION OF THE SOCIAL SCIENCES

Interim Dean

- Amanda Woodward

Deputy Dean and Master of the Collegiate Division

- James Sparrow

Dean of Students

- Patrick Hall

Associate Dean of Students

- Kelly Therese Pollock

The Division of the Social Sciences includes the departments, committees and programs which are engaged particularly in the study of human beings in social and temporal contexts; the origins, development, and structure of institutions and ideas, and the relationships between individuals and among groups of individuals. Research and instruction, which are strongly interdisciplinary, focus on interpreting the complexity of human experience through time and explore the interactions between diverse peoples and the world in which they live.

The division welcomes as students potential researchers, scholars, and teachers, as well as those who seek in the social sciences the enrichment of their cultural preparation for the appreciation of life. The division awards the degrees of Master of Arts and Doctor of Philosophy. The division also cooperates in the undergraduate programs leading to the degree of Bachelor of Arts awarded by the College. Students seeking the Bachelor of Arts degree should consult the College's publication, *Courses and Programs of Study*.

Programs leading to the Ph.D. are offered by the Departments of Anthropology, Comparative Human Development, History, Political Science, Psychology, and Sociology, as well as the Kenneth C. Griffin Department of Economics, and the John U. Nef Committee on Social Thought, and also, the Committee on the Conceptual and Historical Studies of Science. Programs leading to the M.A. are offered by the Committee on International Relations, the Center for Latin American and Caribbean Studies, the Center for Middle Eastern Studies, Computational Social Science, and the Master of Arts Program in the Social Sciences (MAPSS).

ADMISSION TO THE DIVISION

The Division of the Social Sciences considers for admission to its graduate programs students who have a minimum of a bachelor's degree from an accredited college, or equivalent training. Students apply for admission to the division through the Office of the Dean of Students in the Division of the Social Sciences; applications are subsequently evaluated by the faculties of the various programs. Applications can be found at <https://socialsciences.uchicago.edu/admissions/apply>. Questions should be directed to ssd-admissions@uchicago.edu.

DEGREES

MASTER OF ARTS

The degree is awarded for competence in a field of study, not solely for satisfactory completion of a set number of courses.

The general requirements for the master's degree are as follows:

1. In programs that recommend only the awarding of the master's degree, at least nine courses and three quarters of residence in the division. In departments and committees that recommend the awarding of the Ph.D. degree, at least three full time quarters.
2. Completion of the program of study and other requirements prescribed by the student's department or committee.
3. In almost all departments and committees, presentation of an acceptable master's research paper or thesis.
4. In certain departments and committees, satisfactory performance on a final comprehensive examination.
5. Any additional requirements set by the separate departments or committees.

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is awarded for mastery of subject matter and demonstration of research capacity, not solely for completion of a set number of requirements.

The general requirements for the Doctor of Philosophy degree are:

1. Students must complete the requirements set by their particular academic programs (including courses, seminars, research work, and examinations). These requirements vary from program to program within the division.

Portions of the program requirements may sometimes be satisfied on the basis of equivalent work done at other institutions or in other units of the University. The student's department or committee determines whether previously earned academic credit and degrees will be accepted as partial fulfillment of program requirements.

2. Admission to candidacy at least eight months before the date the degree is to be conferred. The student is admitted to candidacy by the dean of students upon the recommendation of the student's department or committee after completion of the following requirements:
 - a. Completion of the work required for a master's degree even if the formal M.A. degree is not taken.
 - b. Successful performance on the departmental preliminary examination(s), if required. Ordinarily, this is taken after the completion of the first year of work.
 - c. Approval by the department or committee of a dissertation proposal and a program of research.
 - d. Satisfactory completion of any additional requirements set by the separate departments or committees.
3. Doctoral dissertation. The candidate is expected to submit to the department or committee an acceptable doctoral dissertation which makes an original contribution to knowledge within the field of inquiry. This step is necessary before the final oral examination is scheduled.
4. The final oral examination and defense of the dissertation.



MA IN COMPUTATIONAL SOCIAL SCIENCE

Faculty Director

- James Evans, Sociology

Executive Committee

- Luc Anselin, Sociology
- Marc G. Berman, Psychology
- Kathleen Cagney, Sociology
- Guanglei Hong, Comparative Human Development
- Ali Hortaçsu, Economics
- Leslie M. Kay, Psychology
- Howard Nusbaum, Psychology
- John Padgett, Political Science
- Stephen W. Raudenbush, Sociology

Affiliated Faculty

- Stéphane Bonhomme, Economics
- Magne Mogstad, Economics
- Anna Mueller, Comparative Human Development
- James T. Sparrow, History
- Alessandra Voena, Economics
- Daniel Yurovsky, Psychology

Associate Director and Senior Lecturer

- Rick Evans

Assistant Director and Lecturer

- Benjamin Soltoff

Managing Director

- Chad Cyrenne

Director of Career Services

- Shelly Robinson

Career Services Coordinator

- Gözde Erdeniz

Employer Relations Manager

- Jeffrey Shoemaker

Student Affairs Administrator

- E.G. Enbar

Alumni, Staff, and Student Programming Administrator

- Stefani Metos

Business Administrator

- Tekeisha Yelton-Hunter

GENERAL INFORMATION

The Master of Arts in Computational Social Science is a two-year program of graduate study. It has a structured curriculum, with a total of 18 required and elective courses tailored to the disciplinary track a student follows. Students submit an article-length MA thesis in their second year, after completing a three-quarter research commitment working directly with a member of our Executive or Affiliated Faculty.

The program aims to produce leading social scientists in each of our core social science fields – economics, sociology, political science, psychology, history, and anthropology – producing competitive PhD applicants, well-

trained in computational approaches, who have mastered the research and analytical skills necessary to make important contributions.

Students receive close mentorship from the program's Faculty Director, academic staff, and members of our Executive and Affiliated Faculty.

They receive full professional support from our Director of Career Services, with biweekly workshops, career planning, and employer recruitment.

Finally, all MA students may participate in an optional summer practicum between their first and second year, with internships drawn from academic and professional organizations. International students have three years of STEM work eligibility after they graduate.

PROGRAM REQUIREMENTS AND COURSE WORK

Students submit an article-length MA thesis in their second year, after completing a three-quarter research commitment working directly with a member of our Computation Faculty.

The courses are selected with the advice of our academic staff, and follow different disciplinary tracks, tailored to the research commitments of each student.

In their first year, all students take a three course core: Perspectives on Computational Analysis, Perspectives on Computational Modeling, and Perspectives on Computational Research.

Most take a three course sequence on Computer Science with Applications (with more advanced courses for students with prior exposure, and an optional sequence for psychology concentrators).

The remaining three courses vary, and depend on the student's prior training and disciplinary path. Priority will go to any needed courses in statistics, linear algebra, or advanced math in particular disciplines (e.g. real analysis in economics). If those requirements are met, the student will take up to three social science electives in their area of research.

In their second year, all students complete a three course "research commitment," producing an MA thesis modeled on a professional journal article. They take three advanced courses in computational methods, tailored to their disciplinary interest. And they complete three social science electives, in their area of research.

If students desire, they can petition to replace any portion of the three quarter research commitment with social science electives or other courses in computational methods.

Outside of their coursework, all MA students are expected to attend our weekly Computation Workshop, where advanced scholars and invited guests present drafts of their research for critique and discussion.

ADMISSION

MACSS applicants must meet the formal requirements of the Graduate Social Sciences Division.

All applicants must submit GRE scores, except for those applying for the joint BA/MA degree.

All financial aid is merit-based, and MACSS offers partial and full tuition scholarships at the time of admission.

Joint BA/MA applicants pay graduate tuition rates, and are eligible to receive the same aid they had in the College.

Applicants from non-English speaking countries must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Some non-native English speakers are exempt, if they have studied in an English language University. Please contact our Dean of Students Office with any questions: ssd-admissions@uchicago.edu

HOW TO APPLY

The Application for Admission and Financial Aid, with instructions and deadlines, is available online at: <https://apply-ssd.uchicago.edu/apply/>.

For additional information about our program, please contact E.G. Enbar, our Student Affairs Administrator, at 773-702-8312 or egenbar@uchicago.edu.

Please also visit our website: <https://macss.uchicago.edu>

COURSES

MACS 30000. Perspectives on Computational Analysis. 100 Units.

Massive digital traces of human behavior and ubiquitous computation have both extended and altered classical social science inquiry. This course surveys successful social science applications of computational approaches to the representation of complex data, information visualization, and model construction and estimation. We will reexamine the scientific method in the social sciences in context of both theory development and testing, exploring how computation and digital data enables new answers to classic investigations, the posing of novel questions, and new ethical challenges and opportunities. Students will review fundamental research designs such as observational studies and experiments, statistical summaries, visualization of data, and how computational opportunities can enhance them. The focus of the course is on exploring the wide range of contemporary approaches to computational social science, with practical programming assignments to train with these approaches.

Instructor(s): Benjamin Soltoff Terms Offered: Autumn

Note(s): MACSS students have priority. Others admitted with instructor consent.

MACS 30100. Perspectives on Computational Modeling. 100 Units.

Students are often well trained in the details of specific models relevant to their respective fields. This course presents a generic definition of a model in the social sciences as well as a taxonomy of the wide range of different types of models used. We then cover principles of model building, including static versus dynamic models, linear versus nonlinear, simple versus complicated, and identification versus overfitting. Major types of models implemented in this course include linear and nonlinear regression, machine learning (e.g., parametric, Bayesian and nonparametric), agent-based and structural models. We will also explore the wide range of computational strategies used to estimate models from data and make statistical and causal inference. Students will study both good examples and bad examples of modeling and estimation and will have the opportunity to build their own model in their field of interest.

Instructor(s): Rick Evans Benjamin Soltoff Terms Offered: Winter

Prerequisite(s): MACSS students have priority. Others admitted with instructor consent.

MACS 30123. Large-Scale Computing for the Social Sciences. 100 Units.

Computational social scientists increasingly need to grapple with data that is either too big for a single machine and/or code that is too resource intensive to process on a single machine. In this course, students will learn how to effectively scale their computational methods beyond their local machines. The focus of the course will be social scientific applications, ranging from training machine learning models on large economic time series to processing and analyzing social media data in real-time. Students will be introduced to several large-scale computing frameworks such as MPI, MapReduce, Spark, and OpenCL, with a special emphasis on employing these frameworks using cloud resources and the Python programming language.

Instructor(s): Jonathan Clindaniel Terms Offered: Spring

MACS 30150. Perspectives on Computational Modeling for Economics. 100 Units.

Students are often well trained in the details of specific models relevant to their respective fields. This course presents a generic definition of a model in the social sciences as well as a taxonomy of the wide range of different types of models used. We then cover principles of model building, including static versus dynamic models, linear versus nonlinear, simple versus complicated, and identification versus overfitting. Major types of models implemented in this course include linear and nonlinear regression, machine learning (e.g., parametric, Bayesian and nonparametric), agent-based and structural models. We will also explore the wide range of computational strategies used to estimate models from data and make statistical and causal inference. Students will study both good examples and bad examples of modeling and estimation and will have the opportunity to build their own model in their field of interest. This course will be specifically tailored to students concentrating in Economics.

Instructor(s): R. Evans Terms Offered: Winter

Note(s): MACSS students have priority.

MACS 30200. Perspectives on Computational Research. 100 Units.

This course focuses on applying computational methods to conducting social scientific research through a student-developed research project. Students will identify a research question of their own interest that involves a direct reference to social scientific theory, use of data, and a significant computational component. The students will collect data, develop, apply, and interpret statistical learning models, and generate a fully reproducible research paper. We will identify how computational methods can be used throughout the research process, from data collection and tidying, to exploration, visualization and modeling, to the final communication of results. The course will include modules on theoretical and practical considerations, including topics such as epistemological questions about research design, writing and critiquing papers, and additional computational tools for analysis.

Instructor(s): Richard Evans Benjamin Soltoff Terms Offered: Spring

Prerequisite(s): MACSS students have priority. Others admitted with instructor consent.

MACS 30250. Perspectives on Computational Research for Economics. 100 Units.

This course focuses on scaling up computational approaches to social science analysis and modeling with big data in context of opportunities afforded by high performance and cloud computing. We will begin by exploring various data structures encountered in social science research, how to deal with large or complex data storage and streaming data, and how to factor considerations of computational complexity into their analyses. We will also study social science applications of parallel computing, both on stand-alone machines and in supercomputing environments, to carry out complex computations. Students will learn to carry out parallel I/O and parallel computation on their own machines and on a cluster. We will also address API construction and access, and explore cloud configurations for social science research designs. We will also help students construct web-based outward facing data, analysis and visualization portals. Students will efficiently gather, structure, perform and present analysis on large-scale social science data. This course will be specifically tailored to students concentrating in Economics.

Instructor(s): R. Evans Terms Offered: Spring

Prerequisite(s): MACSS students have priority.

MACS 30301. Introduction to Bayesian Statistics. 100 Units.

The goal of this course is to give students an overview of the theory and methods for data analyses using the Bayesian paradigm. Topics include: (1) foundations of Bayesian inference, (2) development of Bayesian models and prior choices (3) analytical and simulation techniques for posterior estimation (4) model choice and diagnostics (5) sensitivity analysis, (6) an introduction to Monte Carlo Markov Chain (MCMC) simulations (7) intro to commonly used Bayesian estimation packages (R/JAGS/Bugs) (8) application of Bayesian analysis in real world and Political Science problems.

Instructor(s): Diogo Ferrari Terms Offered: Autumn

Equivalent Course(s): MAPS 30301

MACS 30501. Computational Anthropology. 100 Units.

This course exposes students to the methods and data of Computational Anthropology—the systematic, computational study of the human species, past and present. Such methods have been essential in recent years for simulating human behavior in different cultures and economic systems, uncovering ancient demographic changes that still have an influence into the present day, preserving cultural heritage, and much more. Anthropological data allows social science researchers to evaluate long term trends in the human condition, across a variety of cultures, with a unique combination of material, textual, and structured database data. Students will have the opportunity to evaluate state of the art approaches in computational anthropology and learn how to apply these methods to their own social scientific research agendas using open anthropological datasets and the Python programming language.

Instructor(s): Jonathan Clindaniel Terms Offered: Winter

MACS 33000. Computational Math Camp. 000 Units.**MACS 33001. Mathematics and Statistics for Computational Social Science. 100 Units.**

This course aims to provide students with a core understanding of mathematics and statistics for computational social science. Students who complete this course should be prepared to take more advanced computational methods courses. Completion of the Computational Math Camp in September is recommended, but not required.

Instructor(s): Staff Terms Offered: Autumn

MACS 33002. Introduction to Machine Learning. 100 Units.

This course will introduce students to the foundations of machine learning. Building on a mathematical foundation, we will cover everything needed for getting up and running with any computational research project from a machine learning perspective, including: the basics and mechanics of a model, sampling methods, training, testing and tuning, comparing supervised vs. unsupervised learning, regularization techniques, decision trees, neural networks (artificial and convolutional), and various other models and algorithms contributing to a solid foundation of machine learning. Prerequisites: prior statistical training (through regression, though ideally MLE/GLM); statistical computing (at least basic proficiency in R).

Instructor(s): Philip Waggoner Terms Offered: Winter

MACS 35000. MA Research Commitment. 100 Units.

Student Initiated research and writing for the MA research component.

MACS 40000. Economic Policy Analysis with Overlapping Generation Models. 100 Units.

This course will study economic policy questions ideally addressed by the overlapping generations (OG) dynamic general equilibrium framework. OG models represent a rich class of macroeconomic general equilibrium model that is extremely useful for answering questions in which inequality, demographics, and individual heterogeneity are important. OG models are used extensively by the Joint Committee on Taxation, Congressional Budget Office, and Department of the Treasury. This course will train students how to set up and solve OG models. The standard nonlinear global solution method for these models—time path iteration—is a fixed point method that is similar to but significantly different from value function iteration. This course will take students through progressively richer versions of the model, which will include endogenous labor supply, nontrivial demographics, bequests, stochastic income, multiple industries, non-balanced government budget constraint, and household tax structure.

Instructor(s): Rick Evans Terms Offered: Autumn

MACS 40100. Big Data and Society. 100 Units.

The massive explosion of information produced by computers and sophisticated computational methods capable of harnessing this data to generate inferences has led to an increasingly data-driven society. Businesses, governments, and individuals seek to leverage this data to develop and market products, formulate policy, and improve the human condition. Computational approaches to decision making have become increasingly prevalent in domains such as criminal justice, education, employment, finance, and politics. While decision making based on data mining and algorithms has the capacity to improve society, critics argue that these approaches strengthen socioeconomic class divisions, constitute an invasion of privacy, or violate the civil rights of minority groups. This course will survey some of the major uses of big data in society and assess the potential ethical, moral, and legal implications of these models.

Instructor(s): B. Soltoff Terms Offered: Autumn

MACS 40200. Structural Estimation. 100 Units.

Structural estimation refers to the estimation of model parameters by taking a theoretical model directly to the data. (This is in contrast to reduced form estimation, which often entails estimating a linear model that is either explicitly or implicitly a simplified, linear version of a related theoretical model). This class will survey a range of structural models, then teach students estimation approaches including the generalized method of moments approach and maximum likelihood estimation. We will then examine the strengths and weaknesses of both approaches in a series of examples from the fields of economics, political science, and sociology. We will also learn the simulated method of moments approach. We will explore applications across the social sciences.

Instructor(s): Richard Evans Terms Offered: Winter

Prerequisite(s): MACSS students have priority. Others admitted with instructor consent.

MACS 40300. Open Research Methods. 100 Units.

The purpose of this course is to give students experience in the broad set of skills and tools for managing, collaborating on, and contributing to open source research projects. Transparency and replicability of research have received renewed emphasis in recent years due to the increased prevalence and sophistication of empirical and computational methods as well as the increased availability of large high frequency data sources. This course focuses on the open source programming languages of Python and R, but the principles could be applied to projects using any language. The course will present the common open source software development workflow as an efficient structure for collaborative academic research. We will learn Git and GitHub basic tools and methods. We will practice multiple levels of documentation ranging from in-code docstrings to full PDF and HTML documentation tools. Students will implement continuous integration testing and regression testing in their own open source repositories. And students will learn how to set an environment with specific library and package versions. We will also discuss methods for anonymizing proprietary data or creating synthetic datasets that can be used by the general public.

Instructor(s): R. Evans Terms Offered: Autumn

MACS 40400. Computation and the Identification of Cultural Pattern. 100 Units.

Culture is increasingly becoming digital, making it more and more necessary for those in both academia and industry to use computational strategies to effectively identify, understand, and (in the case of industry) capitalize on emerging cultural patterns. In this course, students will explore interdisciplinary approaches for defining and mobilizing the concept of "culture" in their computational analyses, drawing on relevant literature from the fields of Anthropology, Psychology and Sociology. Additionally, they will receive hands-on experience applying computational approaches to identify and analyze a wide range of cultural patterns using the Python programming language. For instance, students will learn to identify emerging social movements using social media data, predict the next fashion trends, and even decipher ancient symbols using archaeological databases.

Instructor(s): Jonathan Clindaniel Terms Offered: Autumn

MACS 40500. Computational Methods for American Politics. 100 Units.

In this class, students will be introduced to several computational techniques aimed at exploring, understanding, and diagnosing substantive American political phenomena. Rather than focus on derivations and proofs of models, the main focus of the course will be applying and diagnosing model fit, along with computation and application in R. The goal of the class is twofold: first, to offer students a methodological toolbox to tackle complex questions of interest in the social sciences. The second goal, then, is to prepare students for applied quantitative research, offering modern data science techniques and computational training in the service of understanding and predicting American political behavior in a range of contexts. The course will be a combination seminar/applied, where we will read and discuss the latest developments as well as classical works related to a week's topic, but also apply the concepts in R.

Instructor(s): Philip Waggoner Terms Offered: Autumn

Equivalent Course(s): MAPS 40500

MACS 40700. Data Visualization. 100 Units.

Social scientists frequently wish to convey information to a broader audience in a cohesive and interpretable manner. Visualizations are an excellent method to summarize information and report analysis and conclusions in a compelling format. This course introduces the theory and applications of data visualization. Students will learn techniques and methods for developing rich, informative and interactive, web-facing visualizations based on principles from graphic design and perceptual psychology. Students will practice these techniques on many types of social science data, including multivariate, temporal, geospatial, text, hierarchical, and network data. These techniques will be developed using a variety of software implementations such as R, ggplot2, D3, and Tableau.

Instructor(s): Benjamin Soltoff Terms Offered: Spring

MACS 40800. Unsupervised Machine Learning. 100 Units.

Though armed with rich datasets, many researchers are confronted with a lack of understanding of the structure of their data. Unsupervised machine learning offers researchers a suite of computational tools for uncovering the underlying, non-random structure that is assumed to exist in feature space. This course will cover prominent unsupervised machine learning techniques such as clustering, item response theory (IRT) models, multidimensional scaling, factor analysis, and other dimension reduction techniques. Further, mechanics involved in unsupervised machine learning will also be covered, such as diagnosing clusterability of a feature space (visually and mathematically), measures of distance and distance matrices, different algorithms based on data size (k-medoids/k-means vs. PAM vs. CLARA), visualizing patterns, and methods of validation (e.g., internal vs. external validation).

Instructor(s): Philip Waggoner Terms Offered: Autumn

Equivalent Course(s): MAPS 40800

MACS 41200. Advanced Machine Learning. 100 Units.

This is an intermediate-to-advanced introduction to the mathematical and computational aspects of the core statistical and machine learning techniques. The goal is to equip students with a knowledge of the theoretical and practical aspects of four groups of machine learning methods which are widely used in applied research: (1) dimension reduction (PCA, MDS, and their extensions) (2) classification methods (SVM, Bayes classifiers, and other classification methods) (3) clustering procedures (K-means, FMM, non- and semi-parametric Bayesian methods) (4) categorical data analysis (with brief introduction to probabilistic graphical models). The course includes some applications in Political Science, such as FMM to estimate fraud in elections, PCA to construct indices to measure democracy, and text classification.

Instructor(s): Diogo Ferrari Terms Offered: Spring

MACS 41300. Computational Methods for Comparative Politics. 100 Units.

Comparative Politics is one of the most traditional areas in Political Science. In this course, students are exposed to some of the methodological challenges of studying politics from a comparative perspective. The course draws on canonical substantive and methodological debates in Comparative Politics and discusses some modern machine learning, latent variable analysis, and computational methods to overcome some of those difficulties. With instructor guidance, students will have the opportunity to develop their project and apply computational methods to study a topic of their choice in comparative politics.

Instructor(s): Diogo Ferrari Terms Offered: Spring

MACS 51000. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverse-probability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for cross-section and panel data, and fixed effects model. Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005 is a prerequisite. This course is a prerequisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong, K. Yamaguchi Terms Offered: Winter

Prerequisite(s): Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005

Note(s): CHDV Distribution: M; M

Equivalent Course(s): SOCI 30315, PBHS 43201, CHDV 30102, STAT 31900, CHDV 20102, PLSC 30102

MACS 54000. Introduction to Spatial Data Science. 100 Units.

Spatial data science consists of a collection of concepts and methods drawn from both statistics and computer science that deal with accessing, manipulating, visualizing, exploring and reasoning about geographical data. The course introduces the types of spatial data relevant in social science inquiry and reviews a range of methods to explore these data. Topics covered include formal spatial data structures, geovisualization and visual analytics, rate smoothing, spatial autocorrelation, cluster detection and spatial data mining. An important aspect of the course is to learn and apply open source software tools, including R and GeoDa.

Instructor(s): L. Anselin and M. Kolak Terms Offered: Autumn

Prerequisite(s): STAT 22000 (or equivalent), familiarity with GIS is helpful, but not necessary

Equivalent Course(s): SOCI 20253, GEOG 30500, ENST 20510, SOCI 30253, GEOG 20500

MACS 55000. Spatial Regression Analysis. 100 Units.

This course covers statistical and econometric methods specifically geared to the problems of spatial dependence and spatial heterogeneity in cross-sectional data. The main objective of the course is to gain insight into the scope of spatial regression methods, to be able to apply them in an empirical setting, and to properly interpret the results of spatial regression analysis. While the focus is on spatial aspects, the types of methods covered have general validity in statistical practice. The course covers the specification of spatial regression models in order to incorporate spatial dependence and spatial heterogeneity, as well as different estimation methods and specification tests to detect the presence of spatial autocorrelation and spatial heterogeneity. Special attention is paid to the application to spatial models of generic statistical paradigms, such as Maximum Likelihood, Generalized Methods of Moments and the Bayesian perspective. An important aspect of the course is the application of open source software tools such as R, GeoDa and PySAL to solve empirical problems.

Instructor(s): Staff Terms Offered: Spring

Equivalent Course(s): SOCI 40217, GEOG 40217

MACS 60000. Computational Content Analysis. 100 Units.

A vast expanse of information about what people do, know, think, and feel lies embedded in text, and more of the contemporary social world lives natively within electronic text than ever before. These textual traces range from collective activity on the web, social media, instant messaging and automatically transcribed YouTube videos to online transactions, medical records, digitized libraries and government intelligence. This supply of text has elicited demand for natural language processing and machine learning tools to filter, search, and translate text into valuable data. The course will survey and practically apply many of the most exciting computational approaches to text analysis, highlighting both supervised methods that extend old theories to new data and unsupervised techniques that discover hidden regularities worth theorizing. These will be examined and evaluated on their own merits, and relative to the validity and reliability concerns of classical content analysis, the interpretive concerns of qualitative content analysis, and the interactional concerns of conversation analysis. We will also consider how these approaches can be adapted to content beyond text, including audio, images, and video. We will simultaneously review recent research that uses these approaches to develop social insight by exploring (a) collective attention and reasoning through the content of communication; (b) social relationships through the process of communication; and (c) social state

Instructor(s): James Evans Terms Offered: Winter

Equivalent Course(s): CHDV 30510, SOCI 40133

MACS 95000. Computation MA Internship. 000 Units.

All MACS students participating in the The Computational Social Science Internship Program will be required to enroll in this non-credit summer quarter field research course. The course will appear on the transcript, and will be evaluated on a pass/fail basis, in consultation with the employer.



MASTER OF ARTS PROGRAM IN THE SOCIAL SCIENCES

Faculty Director

- John Mark Hansen

Executive Committee

- Ralph A. Austen (Emeritus), History
- Elisabeth Clemens, Sociology
- Michael P. Conzen, Geographical Studies
- Chad Cyrenne (Ex officio), Social Sciences
- Jane Dailey, History
- Judith B. Farquhar, Anthropology
- Raymond D. Fogelson (Emeritus), Anthropology, Comparative Human Development
- Morris Fred (Ex officio), Social Sciences
- Rachel Fulton-Brown, History
- Susan Goldin Meadow, Psychology, Comparative Human Development
- Ramón Gutiérrez, History
- Gary Herrigel, Political Science
- Alan L. Kolata, Anthropology
- John J. MacAloon, Social Sciences
- Martha K. McClintock, Psychology, Comparative Human Development
- Omar McRoberts, Sociology
- Howard Nusbaum, Psychology, Computational Neuroscience
- Nathan Tarcov, Political Science, Social Thought
- Richard P. Taub (Emeritus), Sociology, Comparative Human Development

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Senior Lecturer

- Victor Lima, Economics

Lecturers

- Morrie Fred, Anthropology
- Min Sok Lee, Economics

Earl S. Johnson Instructors

- Samantha Fan, Psychology
- Muh-Chung Lin, Sociology
- John McCallum, History
- Francis McKay, Anthropology

Director of Career Services

- Shelly Robinson

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- Jeffrey Shoemaker
Student Affairs Administrator
- E.G. Enbar
Alumni, Staff, and Student Programming Administrator
- Stefani Metos
Business Administrator
- Tekeisha Yelton-Hunter

GENERAL INFORMATION

The MA Program in the Social Sciences (MAPSS) is an intense, intellectually transformative one-year program. Students concentrate in Anthropology, Economics, History, Political Science, Psychology, and Sociology. Some pursue interdisciplinary work in Comparative Human Development, Social Thought, or Conceptual and Historical Studies of Science. Others may specialize in Quantitative Methods for Social Analysis, Education and Society, Gender and Sexuality Studies, and Geographic Information Science.

All MAPSS students take nine graduate courses, selected from all UChicago departments and professional schools. They work directly with UChicago faculty on the MA thesis.

Students are assisted in their course selections, and offered weekly mentorship for their research, by doctoral student “preceptors” and by the MAPSS senior staff.

MAPSS is highly selective for admission and offers substantial merit aid, from partial to full tuition grants.

We offer preeminent training for those aspiring to go on for funded PhD study in the social sciences. Each year 70-90 of our graduates do so successfully, at a 90% placement rate. More than 100 MAPSS graduates are pursuing the PhD at UChicago alone.

MAPSS also offers an exceptional program of career placement, working directly with our Director of Career Services, with weekly workshops, on-campus recruitment, and visits by leading alumni who provide mentorship in a variety of fields.

Each student works closely with the program directors, our senior academic staff, and an assigned preceptor, designing a customized curriculum, defining an area of scholarly research, and writing the MA thesis.

A joint BA/MA program is also available.

PROGRAM REQUIREMENTS AND COURSE WORK

MAPSS students must complete our core course, satisfy our methods requirement, and earn a minimum B as their cumulative grade over their nine graduate courses. Students must also submit a faculty-approved MA thesis.

COURSE WORK

Our core course, “Perspectives in Social Science Analysis,” examines the theoretical approaches that have been broadly influential across the social sciences. It features a mix of foundational and contemporary texts. The course furnishes a common vocabulary, and core analytical skills, that help students understand how their research commitments have been shaped by past investigators.

Because Perspectives is offered only in the Autumn Quarter, students may not begin the MAPSS program at any other time of year.

Students must also fulfill a methods requirement. MAPSS offers courses in historical, ethnographic, statistical, and interpretive methods. Dozens of other methods courses, from network analysis, game theory, involved interviewing, comparative case study, rational choice, comparative historical analysis, experimental methods, organizational analysis, survey research, and statistical methods are offered across campus each year.

Courses are selected with the guidance of a MAPSS preceptor. Students register for three graduate classes per quarter, beginning in the Fall and continuing through the Winter and Spring. They take graduate courses in all departments and professional schools of the University.

THE MASTER’S THESIS

Students write an article-length MA thesis under the supervision of any UChicago faculty member. Their preceptor provides weekly assistance, and serves as the paper’s second reader.

The preceptor organizes and leads an MA proposal workshop in the Winter.

Both the faculty sponsor and the preceptor provide feedback on the proposal, the first draft, and give a written evaluation and letter grade for the final submission.

Approximately 20% of MAPSS students graduate in June, and 80% in August.

SAMPLE THESIS TOPICS

Some recent MA paper titles include:

- "Class or Group Identity? Rethinking the 1967-69 Ocean Hill-Brownsville School Strikes for Left Coalitional Politics"
- "Poisoned Futures: Pesticide Usage and Agrarian Suicides in Vidarbha, India"
- "Stagnant Employees: Signals of Performance Decline over Tenure Length"
- "Performing at Free Street: At-Risk Adolescents' Experiences in a Dramatic Arts Program"
- "Deepening Democracy or Diverting Attention? Participatory Democracy and the Community Council Movement in Venezuela"
- "Pricing the Atmosphere: Commensuration and the Case of the Chicago Climate Exchange"
- "Democratic Leadership in Athens and its Role in Thucydides' Political Thought"
- "Impact of Rural-Electrification on Educational Outcomes: Evidence from India"
- "The Socialization of Math Anxiety: The Relationship Between Early Math Talk and Later Math Attitudes"
- "Capacity and the Duty to Intervene: Considerations on the Agency Problem of Humanitarian Intervention"
- "Neural Activity Reflecting Affective Impact of Addressee and Emotional Words in Speech Perception"
- "Intimate Segregation: Gentrification and the New Landscape of Race"

ADMISSION

MAPSS applicants must meet the formal requirements of the Graduate Social Sciences Division.

All applicants must submit GRE scores, except for those applying for the joint BA/MA degree.

All financial aid is merit-based, and MAPSS offers partial and full tuition scholarships at the time of admission.

Joint BA/MA applicants pay graduate tuition rates, and are eligible to receive the same aid they had in the College.

Applicants from non-English speaking countries must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Some non-native English speakers are exempt, if they have studied in an English language University. Please contact our Dean of Students Office with any questions: ssd-admissions@uchicago.edu

Part-time study is possible, but part-time students are not eligible for financial aid.

HOW TO APPLY

The Application for Admission and Financial Aid, with instructions and deadlines, is available online at: <https://apply-ssd.uchicago.edu/apply/>.

For additional information about our program, please contact E.G. Enbar, our Student Affairs Administrator, at 773-702-8312 or egenbar@uchicago.edu.

Please also visit our website, at: <https://mapss.uchicago.edu/>

SOCIAL SCIENCES MA COURSES

MAPS 30000. Perspectives in Social Science Analysis. 100 Units.

This course presents a set of perspectives that can be used as coordinates to map the modern social sciences. Perspectives are stances from which social thinkers see the world and explain the world. The course is meant to bring students together around a shared reading list of foundational works and exemplary research and to develop a shared vocabulary for how to discuss differences among various types of research.
Instructor(s): Dain Borges Terms Offered: Autumn

MAPS 30200. Readings: Social Sciences. 100 Units.

Individualized and independent reading course with selected faculty.
Instructor(s): Dain Borges Terms Offered: Autumn
Note(s): Open only to MAPSS students.

MAPS 30301. Introduction to Bayesian Statistics. 100 Units.

The goal of this course is to give students an overview of the theory and methods for data analyses using the Bayesian paradigm. Topics include: (1) foundations of Bayesian inference, (2) development of Bayesian models and prior choices (3) analytical and simulation techniques for posterior estimation (4) model choice and diagnostics (5) sensitivity analysis, (6) an introduction to Monte Carlo Markov Chain (MCMC) simulations (7) intro to commonly used Bayesian estimation packages (R/JAGS/Bugs) (8) application of Bayesian analysis in real world and Political Science problems.

Instructor(s): Diogo Ferrari Terms Offered: Autumn

Equivalent Course(s): MACS 30301

MAPS 30600. Readings: MA Paper Research. 100 Units.

Student initiated research and writing for the MA thesis.

Instructor(s): Dain Borges Terms Offered: Autumn

MAPS 30900. Survey Research Overview. 100 Units.

The course provides an overview of interview-based data collection methods. Each student must develop a research question to guide their research design. Students get an overview of different interview-based data collection methods (focus groups, key-informant interviews, large-N sample surveys), how to sample and design a questionnaire or interview guide for their project, and the nuts and bolts of actual recruitment, receipt control and survey administration. The instructor provides feedback for proposed elements of each student's research plan through weekly assignments. The final paper is a research proposal that outlines a plan for research to address the student's research question.

Instructor(s): M. Van Haitsma Terms Offered: Autumn Winter. entativley

Equivalent Course(s): SOSC 30900, SSAD 53200, SOCI 30118

MAPS 31108. Temple or Forum: Designing the Obama Presidential Center. 100 Units.

Throughout this seminar participants will research and discuss key issues pertaining to the development and implications of presidential libraries and museums. These insights will become the foundation for a final project in which they will work in small teams to design a potential exhibit for the Obama Presidential Center in Jackson Park.

Equivalent Course(s): ANTH 31108, ANTH 24520

MAPS 31230. Stigma Lab. 100 Units.

The concept of stigma is mobilized to explain a wide range of practices and experiences both in scholarship and everyday life. In this course, we critically engage readings on stigma from across the social sciences in order to develop a genealogy of how the concept emerged. We then read a series of ethnographic and other social science texts to analyze how the concept is utilized. Finally, students consider how stigma functions as an analytic and explanatory model in their own work. It is important that students enrolled in this course have a research project-- proposed or actual-- involving stigma in some way-- or that they are interested in working through stigma as a concept collectively.

Instructor(s): M. Friedner Terms Offered: Winter

Prerequisite(s): Advanced undergraduates.

Note(s): CHDV Distribution: C, D; 2, 4

Equivalent Course(s): CHDV 21230, ANTH 35140, CHDV 31230

MAPS 31500. Historical Methods. 100 Units.

This course analyzes key methodological and conceptual problems that all historians must confront, whether we are medievalists or modernists. These include problems of structure and agency, anachronism, how to use non-textual evidence, and how to approach elusive cultural phenomena such as perceptions, attitudes and sentiments. We will examine some of the myriad ways that a range of historians have approached these problems, and in the process attempt to illuminate the complex relationship between sources, methods and theory in our own work. Ultimately, the course seeks to provide you with methodological, theoretical and conceptual tools useful in formulating and executing a substantial historical research project. Participation is absolutely essential to the success of the course, and will be evaluated as a significant part of your grade.

Instructor(s): Darcy Heuring Terms Offered: Autumn

Note(s): Open to MAPSS students only.

MAPS 31600. Ethnographic Methods. 100 Units.

As ethnography has matured over the past century, it has also extended itself into all corners of academia, becoming a cornerstone for empirical research not just in anthropology, but the humanities, social sciences, professional schools, and at times the natural sciences as well. What, then, is the appeal of this process of knowledge production? What are the norms of ethnographic research? And what does it take to become a skilled ethnographer? This course will attempt to answer those questions through a mixture of theory and practice. Each week we will discuss foundational anthropological texts on method, complemented with practicums and workshops, during which students will apply the theoretical insights gained from their readings to their own empirical research projects. The course will cover both the practicalities of fieldwork (how to find and get access to a site, how to build rapport with informants and make lasting contacts, how to conduct different kinds of interviews, etc), as well as the deeper ethical, epistemological and ontological issues raised by ethnography (the problems of representation, the ethics of participant observation, the subject position of the ethnographer). Through that students will learn how to embody a rigorous, theoretically informed, and critically reflective methodological practice and will demonstrate a skilled understanding of this through their own "mini-ethnography," which will be undertaken on a topic of their choosing.

Instructor(s): F.Mckay Terms Offered: Autumn

MAPS 31701. Data Analysis & Statistics. 100 Units.

This course is designed for graduate students and advanced undergraduate students and aims to provide a strong foundation in the statistical and data analyses commonly used in the behavioral and social sciences. Topics include logistic regression, statistical inference, chi-square, analysis of variance, and repeated measures models. In addition, this course also place greater emphasis on developing practical skills, including the ability to conduct common analyses using statistical software. You will learn how to build models to investigate your data, formulate hypothesis tests as comparisons between statistical models and critically evaluate model assumptions. The goal of the course is for students to be able to define and use descriptive and inferential statistics to analyze and interpret statistical findings.

Instructor(s): Peishan Fan Terms Offered: Autumn

MAPS 31702. Data Science. 100 Units.

This course is a graduate-level methods class that aims to train you to solve real-world statistical problems. The goal of the course is for students to be able to choose an appropriate statistical method to solve a given problem of data analysis and communicate your results clearly and succinctly. There will be an extensive hands-on experience of analysis of real data through practical classes.

Instructor(s): Peishan Fan Terms Offered: Winter

MAPS 31750. Data Analysis for Social Research. 100 Units.

The purpose of this course is help students build a solid foundation of statistical methods for social research and become proficient in using computer software for survey data analysis. Techniques acquired in this class are essential for social scientific research, and in graduate programs in sociology and professional schools such as social work, as well as job market positions which require basic to intermediate quantitative skills. Topics of this course range from the nuts and bolts of probability distributions and statistical inference to multivariate regression and its diagnostics. This course is intensive and moves pretty fast, and students are expected to work hard to have these skills "imprinted" in their minds. Further, students will have the opportunity to conduct a mini-research exercise in the second half of this course.

Instructor(s): Muh-Chung Lin Terms Offered: Autumn

MAPS 31760. Concepts, Assumptions, Data and Inference in Quantitative Research Methodology. 100 Units.

The main purpose for designing this course is to provide instruction on core principles of quantitative research methodology in the social sciences. This course will equip graduate students with the conceptual tools of quantitative research that form the foundation for data management, data analysis and inference. We will examine a series of topics related to measurement, sampling, hypothesis, data structure and model interpretation which scholars would encounter when designing any project that uses quantitative data for empirical research. My main target audience is graduate students enrolled in the Masters Program in Social Sciences that want to use quantitative research techniques for their MS thesis project. Students enrolled in this course are expected to have taken at least one upper-level undergraduate or a graduate course in statistics in the past two years or equivalent. Students who are not planning to use quantitative methods in the future can also enroll in this course to develop proficiency in reading research publications and scholarly reports that use quantitative tools.

Instructor(s): Amit Anshumali Terms Offered: Autumn

MAPS 31800. Interpretive Methods in Political Theory. 100 Units.

This seminar offers a graduate-level survey of the major interpretive schools in contemporary political thought. We'll ask what makes each camp so attractive to its adherents; what methodological assumptions, evidentiary warrants, and technical skills are today associated with leading practitioners; what controversies divide one alternative from the next; and how to reproduce particular methodological orientations in your research. We will also revisit some fundamental questions: What do we expect good political theory to do? What falls within the "political" that it interrogates and describes? Should political theory take its bearings from history, philosophy, or empirical social science? Readings will be drawn from the Cambridge Historians, Straussians, Critical Theory, Discourse Ethics, Genealogy, Analytic Philosophy, Feminism, Social Interpretivism, Phenomenology, and Literary/Cultural Narrativism.

Instructor(s): Chad Cyrenne Terms Offered: Autumn

Equivalent Course(s): SOSC 31800

MAPS 32200. Anthropology and 'The Good Life': Ethics, Morality, Well-Being. 100 Units.

This course takes a critical, historical and anthropological look at what is meant by "the good life." Anthropologists have long been aware that notions of "the good" play an essential role in directing human behavior, by providing a life with meaning and shaping what it means to be a human being. Over the past several years, however, there has been an increasing demand for clarification on what is meant by "the good life," as well as how cultural conceptions of "the good" relate to science, politics, religion, and personal practice. In this course, we will take up that challenge by exploring what is meant by "the good," focusing on three domains in which it has most productively been theorized: ethics, morality, and well-being. Through a close reading of ethnographic and theoretical texts, as well as through analysis of documents and resources used and produced by different communities in order to explore the good life, we will gain an understanding of the different theoretical and methodological approaches for understanding the good in the social sciences, the various cultural logics shaping knowledge and practices of the good, and how human experience is shaped by those iterations in the process. The topics to be discussed include: the good life, moral reason, moral relativism, utility, deontology, virtue, happiness, well-being, flourishing, techniques of the self, spiritual exercises, professional ethics, neuroethics, and the moral sentiments.

Equivalent Course(s): CHDV 32200, ANTH 24345, ANTH 35130

MAPS 32800. Experiencing Madness: Empathic Methods in Cultural Psychiatry. 100 Units.

This course provides students with an introduction to the phenomenological approach in cultural psychiatry, focusing on the problem of "how to represent mental illness" as a thematic anchor. Students will examine the theoretical and methodological groundings of cultural psychiatry, examining how scholars working in the phenomenological tradition have tried to describe the lived experiences of various forms of "psychopathology" or "madness." By the end of the course, students will have learned how to describe and analyze the social dimension of a mental health experience, using a phenomenologically-grounded anthropological approach, and by adopting a technical vocabulary for understanding the lived experiences of mental illness (for instance, phenomena, life-world, being-in-the-world, intentionality, epoché, embodiment, madness, psychopathology, melancholia/depression, schizophrenia, etc). In addition, given the ongoing problematic of "how to represent mental illness," students will also have the opportunity to think through the different ways of presenting their analysis, both in the form of weekly blog entries and during a final-week mock-workshop, where they will showcase their work in a creative medium appropriate to that analysis.

Equivalent Course(s): HIPS 22800, ANTH 24355, ANTH 35135, CHDV 32822, CHSS 32800

MAPS 33501. Gender, Sex, and Empire. 100 Units.

This course examines the complex and contested relationships between gender, sexuality, social organization and power in histories of (primarily British) imperialism and colonialism from the early conquests in the New World through the twentieth century. Employing insights from gender history, postcolonial studies and feminist theory, we look at a broad range of historical case studies to explore themes such as the intersectionality of race, class and gender; the instability of gender ideologies; how power was articulated through the fields of gender and sexuality; the politics of intimacy; and the regulation and 'improvement' of colonial bodies. Our goal is to better understand the ways that gender/sexuality and Western imperialism were co-constitutive in specific imperial and colonial contexts.

Equivalent Course(s): GNSE 25706, HIST 23308, GNSE 33501

MAPS 33502. Gender, Sex, and Culture. 100 Units.

This introductory graduate course examines the social construction of gendered identities in different times and places. We study culturally-specific gendered experiences, 'roles,' rights and rebellions around the world, discussing the individual and social consequences of gender and the interrelationships between gender and other categories for identity including race, class and sexuality. While focusing on the global diversity of gendered experience and expectations, we also examine gender in the US, taking a critical approach to understanding gendered inequality and gender-based and sexual violence both abroad and at home. Finally, we examine the role of gendered expectations in Western science, the relationship between gender and 'globalization,' and the contemporary movements affecting change in gendered norms, especially in the arts and media. Advanced Undergraduates admitted with Instructor consent.

Instructor(s): Mary Elena Wilhoit Terms Offered: Autumn

MAPS 33503. Ethnographic Approaches to Gender and Sexuality. 100 Units.

This methods course aims to prepare graduate students and advanced undergraduates for ethnographic research on topics focused on gender and sexuality. We will read articles and books showcasing ethnographic methodologies, and we will discuss benefits and limitations of various research designs. Class debates will cover epistemological, ethical, and practical matters in ethnographic research. We will discuss issues of positionality, self-reflexivity, and power. Students will be required to formulate a preliminary research question at the beginning of the course, and will conduct a few weeks of ethnographic research in a field site of their choosing. Each week students will produce field notes to be exchanged and discussed in class, and as a final project they will be asked to produce a research proposal or a short paper based on their observations.

Instructor(s): Cate Fugazzola Terms Offered: Autumn

MAPS 33600. War, Law, Norms: Violence and Its Limits. 100 Units.

Violent contention is ubiquitous in the human past, but so are ethical norms and legal rules which seek to put limits on permissible attacks against others. Do they work? Can scraps of paper, or collective conscience, put the brakes on a dynamic of destruction which would otherwise lead to unconstrained killing? This graduate colloquium will look at this fundamental question through the lens of a rapidly evolving historical literature on the laws and ethics of war, ranging from the arbitration of blood feuds in the Icelandic Sagas through the surprising influence of the much-derided 1928 Kellogg-Briand Pact outlawing war on the unfolding of 21st century history.

MAPS 34500. Anthropology Of Museums-1. 100 Units.

Using anthropological theories and methodology as a conceptual framework, this seminar will explore the organizational and ideological aspects of museum culture(s). The course includes visits to museums with guest museum professionals as guides into the culture of museums.

Equivalent Course(s): ANTH 34501, MAPH 34400, ANTH 24510, CHDV 34501, SOSC 34500

MAPS 34512. Unfolding Anthropology: Practices of Research and Representation. 100 Units.

This introductory graduate course interrogates the forms of interaction, understanding, and representation that define the ongoing evolution of the discipline of anthropology. Starting with the early moments of anthropology and proceeding to contemporary texts, we will identify both the unique insights anthropology offers and its blind spots. Students will be given opportunities to explore the value of anthropology as a way of thinking with and about human experience through close studies of the discursive frameworks, aesthetic forms, and claims of ethnographies. What kinds of knowledge are conveyed in what forms? What kinds of truths are communicated through what kinds of texts? These are some of the questions we will explore as we gain exposure to wide-ranging ethnographies focused on South Asia, Brazil, Morocco, Southern Africa, and the United States. We will enrich close readings of ethnographies with hands-on explorations of the methods of anthropology. Students will undertake research projects, and compose abridged ethnographies in order to complicate their practices of intellectual engagement and critique with the contingencies of life outside the classroom.

Instructor(s): Victoria Gross Terms Offered: Autumn

MAPS 34600. Anthropology Of Museum-2. 100 Units.

Using anthropological theories and methodology as a conceptual framework, this seminar will explore the organizational and ideological aspects of museum culture(s). The course includes visits to museums with guest museum professionals as guides into the culture of museums.

Instructor(s): M. Fred Terms Offered: Autumn Winter

Prerequisite(s): Advanced standing and consent of instructor

Note(s): CHDV Distribution: C

Equivalent Course(s): CHDV 38102, SOSC 34600, ANTH 34502, ANTH 24511

MAPS 34700. In Conversation with Language & Culture. 100 Units.

This course is designed to be an interdisciplinary class that explores research in early cognitive development within the field of language, culture and the self. We will discuss a variety of topics in cognitive development, as well as important questions concerning language and culture. This course will touch upon on research across development to document early biases in human reasoning that might persist through the lifespan, and will emphasize how we can use basic science research to inform educational goals and make positive contributions to addressing issues related to language and culture.

Instructor(s): Peishan Fan Terms Offered: Spring,TBD

Prerequisite(s): Open only for graduate students and 4th year undergraduates. Undergraduates must have instructor consent.

Equivalent Course(s): CHDV 34710

MAPS 35148. Israel in Film and Ethnography. 100 Units.

This seminar explores the dynamics of Israeli culture and society through a combination of weekly screenings of Israeli fiction and documentary films with readings from ethnographic and other relevant research. Among the (often overlapping) topics to be covered in this examination of the institutional and ideological construction of Israeli identity/ies: the absorption of immigrants; ethnic, class, and religious tensions; the kibbutz; military experience; the Holocaust; evolving attitudes about gender and sexuality; the struggle for minorities' rights; and Arab-Jewish relations. In addition to the readings, participants will be expected to view designated films before class related to the topic.

Equivalent Course(s): CMES 35148, JWSC 25148, ANTH 35148, NEHC 35148, ANTH 25148, NEHC 25148

MAPS 35150. Anthropology of Israel. 100 Units.

This seminar explores the dynamics of Israeli culture and society through a combination of weekly screenings of Israeli fiction and documentary films with readings from ethnographic and other relevant research. Among the (often overlapping) topics to be covered in this examination of the institutional and ideological construction of Israeli identity/ies: the absorption of immigrants; ethnic, class, and religious tensions; the kibbutz; military experience; the Holocaust; evolving attitudes about gender and sexuality; the struggle for minorities' rights; and Arab-Jewish relations.

Equivalent Course(s): NEHC 35147, NEHC 25147, ANTH 35150, CMES 35150, ANTH 25150, JWSC 25149

MAPS 36300. Child, Adolescent, and Adult Development in Socio-Cultural Context. 100 Units.

In this course, students are introduced to the profound impact that socio-cultural context has on the physical, emotional, cognitive, and social development of children, adolescents and adults. In short, the course argues that we cannot separate human biology (e.g., heredity, brain development, physiology), from social experience and culture, which are viewed as necessary for the proper unfolding of developmental processes. Through course readings, students will engage with developmental theories, themes and concepts from psychology, cultural psychology, and linguistics that will allow them to explore their own development and the development of others. The main focus will be on "normal" development, or group averages, although differences among individuals will also be discussed. The course structure incorporates lectures based on text book readings and seminar-style discussions of current research in the field.

Instructor(s): S. Van Deusen Phillips Terms Offered: Spring 2014

Equivalent Course(s): CHDV 36303, CHDV 26303

MAPS 36400. Aging and the Life Course. 100 Units.

Over the last few decades, life course has become an important perspective for sociologists, demographers, and gerontologists to understand the social processes of aging. This seminar course introduces key concepts of the theories of aging and the life course, as well as empirical findings on the social, demographic, and economic aspects of the demographics of aging. While biology and physiology play crucial role in aging, such as greater longevity and the delayed onset of morbidity, this course focuses on the social processes of aging and the role of social stratification in shaping health and well-being. In addition, this course will discuss the policy implications of aging.

Instructor(s): Muh-Chung Lin Terms Offered: Spring

MAPS 36450. Marriage and Family. 100 Units.

Marriage and the family are two important building blocks in many societies. Marriage and the family not only constitute essential parts of an individual's inner world, shape his or her perspectives towards life and the outside world, they also have far reaching effects on an individual's well-being, ranging from physical and mental health, income and wealth, to his or her integration to the social network and community. This course aims to introduce students to the sociological literature on marriage and the family. We will cover stages through which a romantic relationship evolves over time, from dating and courtship, sexual relationship to cohabitation and marriage, as well as divorce and widowhood. We will also discuss socioeconomic differences in childrearing practices, kinship, and social stratification and the family. This course focuses largely on patterns in the contemporary U.S. society, and yet we will also explore their historical roots and international differences.

Instructor(s): Muh-Chung Lin Terms Offered: Winter

Equivalent Course(s): GNSE 36450

MAPS 36500. Social Demography. 100 Units.

This course seeks to introduce important topics in social demography to master and upper-level undergraduate students. Social demography studies the social aspects influencing the population processes. Specifically, this course focuses on basic demographic concepts, fertility transition, extreme fertility regimes, epidemiological transition, differential health and mortality, health behaviors, population aging, migration, household formation, second demographic transition, and population and environment. Students are evaluated by their participation, leading discussions, reflection memos, and a final project.

Instructor(s): Muh Chung Lin Terms Offered: Spring

Equivalent Course(s): PBPL 26501

MAPS 36900. Anthropology of Disability. 100 Units.

This seminar undertakes to explore "disability" from an anthropological perspective that recognizes it as a socially constructed concept with implications for our understanding of fundamental issues about culture, society, and individual differences. We explore a wide range of theoretical, legal, ethical, and policy issues as they relate to the experiences of persons with disabilities, their families, and advocates. The final project is a presentation on the fieldwork.

Instructor(s): M. Fred Terms Offered: Autumn

Prerequisite(s): Third- or fourth-year standing

Equivalent Course(s): SOSC 36900, ANTH 20405, HMRT 35210, CHDV 20505, ANTH 30405, CHDV 30405, HMRT 25210

MAPS 37000. Freud's Interpretation of Dreams. 100 Units.

Freud himself described *The Interpretation of Dreams* as the repository of the "greatest discoveries" he was destined to make about the human psyche and the human condition. As a Fundamentals course, we will analyze this text as an autonomous whole, line by line, and, reflexively, argumentative filament by filament. As a classic of modern social thought, we will explore the proposition that *The Interpretation of Dreams* is, however inadvertently, the greatest single work on "culture," conceived as a semiotic system, ever written. Iconic writing, that is to say the capacity and the constraints of conveying bodily experience in words, will be a special focus of our reading.

Instructor(s): J. MacAloon Terms Offered: Spring

Prerequisite(s): Open only to graduate students and 3rd and 4th year undergraduates.

Equivalent Course(s): FNDL 29605

MAPS 40164. Involved Interviewing: Strategies for Interviewing Hard to Penetrate Communities and Populations. 100 Units.

Imagine that you must interview someone who hails from a background unlike your own; perhaps you need to interview an incarcerated youth, or gather a life history from an ill person. Maybe your task is to conduct fieldwork inside a community that challenges your comfort level. How do we get others to talk to us? How do we get out of our own way and limited training to become fully and comfortably engaged in people and the communities in which they reside? This in-depth investigation into interviewing begins with an assumption that the researcher as interviewer is an integral part of the research process. We turn a critical eye on the interviewer's role in getting others to talk and learn strategies that encourage fertile interviews regardless of the situational context. Weekly reading assignments facilitate students' exploration of what the interview literature can teach us about involved interviewing. Additionally, we critically assess our role as interviewer and what that requires from us. Students participate in evaluating interview scenarios that are designed to explore our assumptions, sharpen our interviewing skills and troubleshoot sticky situations. We investigate a diversity of settings and populations as training ground for leading effective interviews. The final project includes: 1) a plan that demonstrates knowledge of how to design an effective interviewing strategy for unique field settings; 2) instructor's feedback on students' personal journals on the role of the interviewer.

Instructor(s): S. Hicks-Bartlett Terms Offered: Autumn Winter

Prerequisite(s): Graduate students only

Equivalent Course(s): SOCI 40164

MAPS 40177. Coding & Analyzing Qualitative Data: Using Open-Source Computer Asst. Qualitative Data Analysis. 100 Units.

This is a graduate-level course in coding and analyzing qualitative data (e.g., interview transcripts, oral histories, focus groups, letters, and diaries, etc). In this hands-on-course students learn how to organize and manage text-based data in preparation for analysis and final report writing of small scale research projects. Students use their own laptop computers to access one of two free, open-source software programs available for Windows, Mac, and Linux operating systems. While students with extant interview data can use it for this course, those without existing data will be provided text to code and analyze. This course does not cover commercial CAQDAS, such as AtlasTi, NVivo, The Ethnograph or Hypertext.

Instructor(s): S. Hicks-Bartlett Terms Offered: Spring Winter

Equivalent Course(s): SOCI 40177

MAPS 40200. Seminar: Bourdieu/Sociobiography. 100 Units.

This seminar explores the conceptual architecture of Pierre Bourdieu's social theory, with special attention to its implications for biography and autobiography.

Equivalent Course(s): ANTH 40165

MAPS 40201. Case Studies on the Formation of Knowledge-I. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module." A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu Module 1 : Approaches to Knowledge Shadi Bartsch, Jack Gilbert The goal of this module is to identify central issues or debates in the theory of knowledge over the past century. Students will be introduced to basic issues in the sociology of knowledge, to the arguments for and against constructivist perspectives on knowledge, and to 21st century scientific standards for knowledge production. The course should provide students with a vocabulary and conceptual tools with which they argue about these issues and reflect upon the very conceptual tools they are using. Module 2: Democratic Knowledge Shadi Bartsch, Will Howell This module offers a variation on studies of the epistemic powers of democracy. Instead of asking questions such as how effective democracies are at gathering the knowledge they need to function, the module looks at

Equivalent Course(s): MAPH 40200, HIST 40200, SOCI 40209, SCTH 40200, CHSS 40200, PLSC 40202, CMLT 41802, KNOW 40200

MAPS 40301. Case Studies on the Formation of Knowledge II. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module."# A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu Module 1 : Foundations of Psychology in Linguistics and Biology Robert Richards, John Goldsmith This module will examine the ways several established disciplines, particularly linguistics and biology, came together in the mid-19th century to establish the science of psychology. Both linguistics and biology offered empirical and theoretical avenues into the study of mind. Researchers in each advanced their considerations either in complementary or oppositional fashion. Module 2 : Origins of the Social Construction of Knowledge Robert Richards, Alison Winter This module will trace the development of the idea of the social construction of knowledge and its relation to philosophy and history of science. The development lit a spark, then created a conflagration, and yet still smolders. Module 3 : The Politics of Philosophical Knowledge

Equivalent Course(s): HIST 64901, CMLT 41803, KNOW 40300, CHSS 40300, MAPH 40300, SCTH 40300, SOCI 40210, EALC 50300

MAPS 40500. Computational Methods for American Politics. 100 Units.

In this class, students will be introduced to several computational techniques aimed at exploring, understanding, and diagnosing substantive American political phenomena. Rather than focus on derivations and proofs of models, the main focus of the course will be applying and diagnosing model fit, along with computation and application in R. The goal of the class is twofold: first, to offer students a methodological toolbox to tackle complex questions of interest in the social sciences. The second goal, then, is to prepare students for applied quantitative research, offering modern data science techniques and computational training in the service of understanding and predicting American political behavior in a range of contexts. The course will be a combination seminar/applied, where we will read and discuss the latest developments as well as classical works related to a week's topic, but also apply the concepts in R.

Instructor(s): Philip Waggoner Terms Offered: Autumn

Equivalent Course(s): MACS 40500

MAPS 40800. Unsupervised Machine Learning. 100 Units.

Though armed with rich datasets, many researchers are confronted with a lack of understanding of the structure of their data. Unsupervised machine learning offers researchers a suite of computational tools for uncovering the underlying, non-random structure that is assumed to exist in feature space. This course will cover prominent unsupervised machine learning techniques such as clustering, item response theory (IRT) models, multidimensional scaling, factor analysis, and other dimension reduction techniques. Further, mechanics involved in unsupervised machine learning will also be covered, such as diagnosing clusterability of a feature space (visually and mathematically), measures of distance and distance matrices, different algorithms based on data size (k-medoids/k-means vs. PAM vs. CLARA), visualizing patterns, and methods of validation (e.g., internal vs. external validation).

Instructor(s): Philip Waggoner Terms Offered: Autumn

Equivalent Course(s): MACS 40800

MAPS 44100. The Politics of Value Pluralism. 100 Units.

Value pluralism - the idea that difficult moral questions may have more than one right answer, that some of those answers conflict, and that there may be no rationally authoritative way of choosing between them - has attracted increasing attention from political theorists and philosophers. If true, this non-obvious and heterodox view raises significant challenges for political practice. How can we engage our fellow citizens rationally, if we do not share their moral assumptions, aims, or evidentiary authorities? On what basis can we hold political authorities accountable, if we cannot agree on the same moral criteria to distinguish legitimate from illegitimate uses of political power? If difficult moral questions permit more than one right answer, will that encourage practices of toleration and generosity, or the brute force of majority preference? This seminar will ask what value pluralism really means, what evidence we have for it, and what consequences it entails for a liberal politics.

Instructor(s): Chad Cyrenne Terms Offered: Winter

Equivalent Course(s): PLSC 44110

MAPS 44200. Liberalism. 100 Units.

The post-war consensus on liberal democratic government can today seem under siege in Europe and the United States. Has liberalism run its course, its once revolutionary promise now dimmed by rising inequality, populist ideology, and perceived threats to national cultures? What newer, more persuasive liberalism might replace the managerial, economic, instrumental model that we've inherited? This seminar explores a variety of answers to that question, arguing that the canonical replies may be stranger, the forgotten alternatives more compelling, and liberal thought far more variegated than liberalism's critics or defenders have recognized.

Our eclectic respondents include F.A. Hayek, Judith Shklar, Bernard Williams, Susan Okin, Richard Rorty, and Nancy Rosenblum. We will also explore some surprisingly topical interventions by John Locke, Voltaire, Diderot, Condorcet, Mary Wollstonecraft, John Dewey, and José Ortega y Gasset.

Equivalent Course(s): PLSC 24201, PLSC 44201

MAPS 46460. Disability in Local and Global Contexts. 100 Units.

This is a course about intersections. Disability cuts across age, gender, class, caste, occupation, and religion-or does it? By some measures, people with disabilities are the largest minority group in the world today. In this course, we critically examine both the experiences of people with disabilities in a global context as well as the politics and processes of writing about such experiences. Indeed, questions of representation are perhaps at the core of this course. What role have the United Nations Declaration on the Rights of Persons with Disabilities and international organizations such as the United Nations, the World Health Organization, and other non-governmental social and human service agencies played in the creation of specific understandings of disability experience? We will ask whether disability is a universal category and we will consider how experiences of health, illness, disability, and debility vary. We will engage in "concept work" by analyzing the relationships between disability and impairment and we will critically evaluate the different conceptual and analytical models employed to think about disability. In doing so, we will engage with broader questions about international development, human rights, the boundaries of the nation, the family and other kinship affiliations, and identity and community formation. How is disability both a productive analytic and a lens for thinking about pressing questions and concerns in today's world?

Instructor(s): M. Friedner Terms Offered: Winter

Equivalent Course(s): CHDV 25250, ANTH 24302

MAPS 47501. Anthropology of Olympic Sport. 100 Units.

If cultural differences are as powerful as Anthropology has conventionally stressed, how is it possible that over 200 national and innumerable sub-national and transnational cultural formations have found common cause in the modern Olympic Games? This course explores, theoretically and historically, the emergence of the Olympic Games as the liturgy of the world system of nation states and the current dialectic between the Olympic Movement and the Olympic Sports Industry. Extensive reading and an independent research paper will be required.

Instructor(s): John MacAloon Terms Offered: Winter

Equivalent Course(s): ANTH 30420, ANTH 20420, SOSC 25090

MAPS 49856. Mobilities. 100 Units.

This course considers the "mobilities turn" in anthropology and other social sciences through an engagement with foundational mobility studies literature as well as close readings of ethnographies of and about mobilities. We will consider mobilities in relation to people, places, and objects and we will look at a range of sites. What does a consideration of mobility enable both theoretically and empirically? What is the connection between mobility, change, and political, social, and economic (re)production?

Instructor(s): M. Friedner Terms Offered: Winter

Prerequisite(s): Undergraduates with consent of instructor.

Note(s): CHDV Distribution: 2*

Equivalent Course(s): CHDV 49856, ANTH 45625



MASTER OF ARTS IN LATIN AMERICAN STUDIES - SOCIAL SCIENCES

Director

Brodwyn Fischer (<https://history.uchicago.edu/directory/brodwyn-fischer>), Department of History and the College

The Center for Latin American Studies (CLAS) offers a one-year Master of Arts program (<https://clas.uchicago.edu/academic-programs/MA-programs>) in Latin American and Caribbean Studies that provides individualized, interdisciplinary training for students who plan to pursue career paths for which an MA is advantageous and students who plan to move on to doctoral programs in related fields. Students benefit from various resources that put the University of Chicago at the forefront of research and scholarship on Latin America, including world renowned faculty, top quality library resources, graduate workshops, and field research grant opportunities.

ADMISSION TO THE MASTER'S PROGRAM

Prospective students to the Master of Arts program in Latin American Studies may apply to the program through the Division of the Social Sciences or through the Division of the Humanities and will receive the degree from the division through which they have been admitted.

HOW TO APPLY

The application process for admission and financial aid for all graduate programs in is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online: Division of the Humanities (<http://humanities.uchicago.edu/students/admissions/apply-now>) Social Sciences Division (<https://apply-ssd.uchicago.edu/apply>)

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Current minimum scores, etc., are provided with the application. For more information, please see the Office of International Affairs website (<https://internationalaffairs.uchicago.edu/page/english-language-requirements>) or call them at (773) 702-7752.

Students who wish to earn a Ph.D. degree should apply to a degree program in one of the graduate departments or committees in the Division of the Humanities or the Division of the Social Sciences. International students are advised that completion of a master's degree program is generally not a prerequisite to entering a Ph.D. program.

PROGRAM REQUIREMENTS

Upon entering the program, students will work under academic direction of the CLAS Student Affairs Coordinator and the CLAS Lecturer to develop a specific program of study, cultivate their research interests, and identify a faculty adviser for their master's paper. The basic components of the master's program are described below.

LANGUAGE

A fundamental requirement of the program is proficiency in one of the spoken languages (other than English) of Latin America and the Caribbean. This requirement normally will be met in Spanish or Portuguese. However, substitution of an Amerindian language (such as Aymara, K'iche' Maya, or Yucatec Maya) or a language spoken in the Caribbean (such as Haitian Kreyol) is permissible with the approval of the program adviser. Petitions for substitution will be evaluated in light of the student's prior competency and curricular program and the adequacy of instructional resources in the substitute language. Advanced Proficiency Examinations will be administered to evaluate the entering student's language skills. Students usually meet the language requirement through the Advanced Proficiency Examination in Spanish or Portuguese.

MA students are eligible to participate in the Chicago Language Center's Summer Language Institute (<https://summerlanguages.uchicago.edu/page/about-sli>) in the summer prior to or following matriculation at the University.

COURSE REQUIREMENTS

The standard course requirement is nine quarter courses, to be met as follows:

THE MA PROSEMINAR IN LATIN AMERICAN STUDIES

Through the required common core of the master's program, LACS 40501 MA Proseminar , students gain an introduction to the variety of disciplinary approaches, discourses, and foci that fall under the large rubric of Latin American Studies. The Proseminar introduces students to specialists in the field at the University of Chicago and to the research in which they are involved. Led by the CLAS lecturer, the Proseminar meets every week in the Autumn quarter and every other week

during the Winter quarter. The Winter quarter helps students further focus their thesis projects and technical skills. Students receive a grade for the Proseminar at the end of Winter quarter.

THREE LATIN AMERICAN CONTENT COURSES

Each quarter CLAS compiles a list of courses University-wide with Latin American content. Courses that focus on disciplinary, methodological, or comparative topics may also be counted toward this requirement, provided the student completes a paper or other major project on a Latin American theme.

ONE COURSE ON PRE-20TH CENTURY LATIN AMERICA

Students are required to take one approved course whose subject matter addresses pre-twentieth-century Latin America. The recommended course is LACS 16200 Introduction to Latin American Civilization II but students may select another course based on their needs and interests. Students whose undergraduate transcripts indicate sufficient background from previous equivalent courses will be exempt from this requirement and will be allowed to take other LACS content courses instead.

ONE COURSE ON PRE-20TH CENTURY LATIN AMERICA

Students are required to take LACS 16300 Introduction to Latin American Civilization III. Students whose undergraduate transcripts indicate sufficient background from previous equivalent courses will be exempt from this course and will be allowed to take another approved LACS course on contemporary Latin America.

ONE METHODOLOGY COURSE

Students are required to take a minimum of one methodology course to supplement disciplinary knowledge, technical skills, or language skills. Courses may address a range of topics, from a GIS sequence to qualitative data analysis, ethnographic methods to historiography, Spanish for business to academic and professional writing. Student needs are assessed during admissions: applicant transcripts are reviewed and courses are recommended based on gaps in undergraduate education. CLAS works with departments who sponsor relevant courses to secure places in courses that fit individual student needs.

TWO ELECTIVE COURSES

These courses may, but are not required to, have Latin American content. They are often taken in order to gain a specific disciplinary grounding, explore a theoretical framework, or develop skills in a research methodology.

Credits towards the Master of Arts in Latin American Studies must be taken at the graduate level (courses designated as 30000 or above). However, certain lower level courses may be accepted, at the discretion of the program adviser. All course requirements can be met in three academic quarters.

COURSES

Courses pertinent to the Latin America are offered through the individual departments and committees of the Divisions of the Social Sciences and the Humanities, and through the University's professional schools. Please refer to the listings in these announcements and in the quarterly course schedules for specific offerings. Additionally, special courses are offered by senior visiting Latin Americanist faculty through the Center's Tinker Visiting Professorship. Each quarter the Center compiles a comprehensive list of Latin American and Caribbean courses to be offered at the University available on the CLAS (<https://clas.uchicago.edu>) webpage or through m (<https://classes.uchicago.edu>).

THE MASTER'S PAPER

Every master's degree candidate is required to submit a master's thesis paper. The paper uses theoretically informed analysis or interpretation to explore a significant problem, event, issue, process, relationship, or institution in Latin America and/or the Caribbean. The paper provides the opportunity to apply disciplined research skills and critical abilities to a specific topic of the student's choice. Students will develop a thesis topic and outline during the MA Proseminar. The research and writing of this paper will be conducted under the guidance of a faculty adviser and the CLAS Postdoctoral Lecturer. A student may register for the course LACS 40300 Master's Paper Preparation, which is arranged on an individual basis with the faculty adviser for the project. This course, while optional, may be counted as one of the five required Latin American Studies core courses.

FOR ADDITIONAL INFORMATION ABOUT THE MASTER OF ARTS IN LATIN AMERICAN STUDIES PROGRAM, PLEASE SEE VISIT THE CLAS WEBSITE ([HTTPS://CLAS.UCHICAGO.EDU](https://clas.uchicago.edu)) OR CONTACT CLAS STUDENT AFFAIRS COORDINATOR JAMIE GENTRY AT [JAGENTRY@UCHICAGO.EDU](mailto:jagentry@uchicago.edu).



MASTER OF ARTS IN MIDDLE EASTERN STUDIES - SOCIAL SCIENCES

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- Alexander Barna

The Middle Eastern Studies faculty are listed at <http://cmes.uchicago.edu/>.

The Center for Middle Eastern Studies offers an interdisciplinary Master of Arts program designed for students who wish to use their knowledge of the Middle East in careers other than university teaching and research. The program is also suitable for students considering an academic career who have not had the appropriate academic background for direct entrance into a doctoral program. Language and area studies preparation may be supplemented by relevant course work in a professional school or department. Students may be admitted to the Master of Arts program in either the Division of the Social Sciences or the Humanities and will receive the degree from the division through which they have registered. Students with significant previous training in Middle Eastern or Islamic studies who wish to earn a doctoral degree leading to careers in research and college or university teaching should apply for admission directly to one of the graduate doctoral departments or committees of the University.

There are two tracks—modern and ancient—for the MA program in Middle Eastern Studies. The modern program covers the time period from the rise of Islam until the present. The ancient track, offered in collaboration with the faculty of the Department of Near Eastern Languages and Civilizations, focuses on the cultures and languages of the ancient Near East. The application process, degree requirements, and the rules and conditions for financial aid are similar for both programs.

ADMISSION

Applicants for the Master of Arts in Middle Eastern Studies are expected to meet the graduate admission requirements of the University and of the division to which they apply. In addition, applicants to the Middle Eastern Studies program must submit an academic writing sample. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Students must enter the program in the autumn quarter. Although the program is designed for full time students, applications from those who can attend only on a part time basis will be considered.

HOW TO APPLY THROUGH THE DIVISION OF THE SOCIAL SCIENCES

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (<https://socialsciences.uchicago.edu/admissions/apply>).

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

JOINT PROGRAM IN BUSINESS ADMINISTRATION AND MIDDLE EASTERN STUDIES

Benefiting from the combined strengths of the Center and the Graduate School of Business (<http://www.chicagobooth.edu>)—one of the finest business schools in the country—this three-year program helps students gain a firm grasp of the languages, history, and social institutions of the Middle East while acquiring the

basic skills for careers in international business. To apply for the joint M.A. in Middle Eastern Studies/Masters in Business Administration, please click here (<http://www.chicagobooth.edu/programs/full-time/admissions>).

JOINT PROGRAM IN PUBLIC POLICY AND MIDDLE EASTERN STUDIES

This dual degree program addresses the needs of students wishing to acquire a solid background in modern Middle Eastern languages, history, and civilization while developing their abilities in policy analysis in preparation for professional careers in scholarly, educational, governmental, non-governmental, and business environments in the United States and abroad. This program requires approximately 5 quarters of study in the Center for Middle Eastern Studies and 4 quarters of study in the Harris School of Public Policy (<http://harris.uchicago.edu/admissions-and-aid>). Applicants for the joint program must apply to both the Harris School (<https://grad-application.uchicago.edu>) and the Division of the Social Sciences (<https://socialsciences.uchicago.edu/admissions/apply>) separately.

PROGRAM REQUIREMENTS

The requirements are satisfactory completion of:

- Six quarters of a Middle Eastern (ancient or modern) language (through at least two year proficiency);
- One quarter core colloquium: Approaches to the Study of the Middle East, or Approaches to the Study of the Ancient Near East;
- Three quarters of an approved integrated Middle Eastern survey course.
- Seven courses in relevant electives;
- One course in thesis preparation, or reading and research;
- A master's thesis.

Only courses taken for a quality grade count toward fulfilling the requirements. No P or R grades will be accepted.

Elective courses may concentrate on one area or explore several of the fields of ancient or modern Middle Eastern studies such as, for example, Archaeology, Cuneiform Studies, Egyptology, Semitic linguistics, Arabic, Persian or Turkish literature, as well as related disciplines such as Art History, Anthropology, Classics, History, Linguistics, Political Science and Sociology.

LANGUAGE

Placement interviews will be given so that entering students may register for courses at the appropriate level of instruction.

Students who elect to study Arabic will concentrate on the modern literary language. Students who elect to study Persian, Turkish, Uzbek, Armenian, or Hebrew will concentrate on the modern and contemporary idiom. Ancient track students may take Akkadian, Egyptian (Ancient), Hebrew (Classical), Hittite, and Sumerian.

CORE COURSES

For the modern track MA, all students are required to take the core colloquium Approaches to the Study of Middle East (CMES 30001). Students must enroll in one of the following three quarter sequences: Islamic History & Society (NEHC 31000, 31100, 31200/HIST 35704, 35804, 35904), or Islamic Thought & Literature (NEHC 30601, 30602, 30603/SOSC 22000, 22100, 2220). Those with substantial previous work in Islamic studies will be advised to substitute, where appropriate, more advanced and specialized courses in the field. For the ancient track MA, students are required to take the core colloquium Approaches to the Study of the Ancient Near East and must enroll in the three quarter sequence: Ancient Near Eastern History & Society (NEHC 30001, 30002, 30003).

ELECTIVES

In consultation with advisers, students select courses providing instruction in skills related to their future careers. These courses may be in research methodology; statistics; cross cultural, demographic, or economic analysis; or computer training. They may be selected from the offerings of departments in the graduate divisions, such as the Departments of Economics, Statistics, or Sociology; or of the professional schools, such as the Graduate School of Business, the Law School, the Harris School of Public Policy Studies or the School of Social Service Administration.

Students are strongly encouraged to consider participating in the University Writing Program (Little Red Schoolhouse).

COURSES

Consult in the Announcements and the quarterly Time Schedules the listings of the Departments of Art History, Anthropology, English Language & Literature, History, Music, Near Eastern Languages & Civilizations, Political Science, Sociology, South Asian Languages & Civilizations, and the Committee on Geographical Studies.

MASTER'S THESIS

Students are required to submit a master's thesis that should deal with a problem relevant to the student's intended career and should give evidence of the specialized disciplinary aspects of his or her training. The

student's program adviser and a faculty member with special interest in the subject of the paper will guide the research and writing of the paper and judge whether it exhibits proof of competence in the field. During the writing of the paper, the student will register for a thesis preparation or reading and research course. The thesis title will be listed on the student's transcript.



DEPARTMENT OF ANTHROPOLOGY

Chair

William T.S. Mazzearella

Professors

- Shannon Dawdy
- Michael Dietler
- Susan Gal
- John D. Kelly
- Karin Knorr Cetina, *Sociology*
- Alan L. Kolata
- Joseph P. Masco
- William T.S. Mazzearella
- Stephan Palmié
- Michael Silverstein
- Kaushik Sunder Rajan
- Russell H. Tuttle

Associate Professors

- Hussein Ali Agrama
- P. Sean Brotherton
- Julie Y. Chu
- François G. Richard
- Justin B. Richland
- Alice Yao

Assistant Professors

- Michael Fisch
- Darryl Li
- Constantine Nakassis
- Mareike Winchell

Provost's Postdoctoral Fellow

- Ryan Jobson

Lecturer

- Maria Cecilia Lozada Cerna

Emeritus Faculty

- Manuela Carneiro da Cunha
- Judith B. Farquhar
- James W. Fernandez
- Raymond D. Fogelson
- McKim Marriott
- Nancy D. Munn
- Ralph W. Nicholas
- Marshall D. Sahlins

Anthropology seeks an understanding of human nature, society, and culture in the widest comparative and historical framework. The department's teaching program provides Ph.D. training for research workers and teachers in the various branches of anthropological science. Lectures, tutorial guidance, laboratory instruction, and research seminars provide opportunities for advanced study in sociocultural and linguistic anthropology and archaeology. Course work, but not a graduate degree program, is also offered in physical anthropology.

The purpose of the department is the advancement of anthropological research; this goal is achieved in the graduate program by the development of creative scholars and scientists. The various educational guidelines that are established from time to time by the department as a whole as well as by the particular specialized fields are

intended to aid in this development. All programs, however, are designed to be adaptable to the specific needs and research interests of individual students. Graduate students are encouraged to go forward as rapidly as previous preparation and special powers permit. The identification of specific research problems and the pursuit of these problems through the writing of original papers are skills that are emphasized and fostered as early as possible. This experience develops gradually into the substantial research project that is undertaken for the doctorate.

Graduate students and faculty in the department regularly participate in a large number of interdisciplinary workshops. Some are regional (e.g., African Studies; Latin America and the Caribbean; U.S. Locations; Art and Politics of East Asia; East Asia: Politics, Economy and Society; East Asia: Transregional Histories; Interdisciplinary Approaches to Modern France and the Francophone World; Latin American History; Middle East History and Theory; Theory and Practice in South Asia; and Visual and Material Perspectives on East Asia), some thematic (e.g., Interdisciplinary Archaeology; Ancient Societies; City, Society, and Space; Self and Subjectivity; Education; EthNoise!: Ethnomusicology; Gender and Sexuality Studies; Human Rights; Mass Culture; Knowledge/Value; Race and Religion; Reproduction of Race and Racial Ideology; Semiotics: Culture in Context; and Social History), and some theoretically oriented (e.g., Contemporary Philosophy; History, Philosophy and Sociology of Science; Political Theory; Social Theory).

Graduate students beyond the first year may serve as course or laboratory assistants, and later, as lecturers in College programs. The department also awards Starr Lectureships each year, on a competitive basis, to advanced graduate students. Starr Lecturers teach courses on their areas of specialization in the anthropology concentration in the College.

For additional information about the Department of Anthropology and the interests of its faculty members, please see: <http://anthropology.uchicago.edu/>

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <https://apply-ssd.uchicago.edu/apply/>

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

PROGRAMS OF STUDY

SOCIOCULTURAL AND LINGUISTIC ANTHROPOLOGY

Sociocultural anthropology is concerned with the investigation of human society, culture, and the human relation to nature through intensive ethnographic investigation and wide ranging comparison. It is closely related to the other generalizing social sciences and to the interpretive disciplines of the humanities. Cross disciplinary study is encouraged; graduate students in anthropology often include courses from related fields in their programs.

The Ph.D. program in sociocultural and linguistic anthropology has three prefield phases, each normally designed as one year's work, although under certain circumstances accelerated progress through the later phases is possible.

Phase I introduces the student to the development of social and cultural theory and to the scholarly interests of the faculty in the department. First year students also take courses in particular specialist areas of ethnography and theory in order to frame research interests in preparation for the dissertation project. Course requirements in the first year include The Development of Social and Cultural Theory (two double courses) and Introduction to Chicago Anthropology. In addition students take four other courses dealing with their areas of interest selected in consultation with the first year advisor. The requirements of Phase I apply to all entering graduate students, regardless of whether they hold a master's degree in anthropology from another institution.

Phase II training is directed toward acquiring a deeper knowledge of the special area and theoretical topics on which research will be focused, as well as toward obtaining a broader anthropological understanding in preparation for the Ph.D. qualifying examination. With the exception of those whose master's theses from elsewhere are approved by the department, every second year student completes a master's paper during that year. The Ph.D. qualifying examination is normally taken during the spring of the second year or the autumn of the third year. The department also requires all students in sociocultural and linguistic anthropology to take the course in Anthropological Research Methods and to demonstrate competence in a foreign language by achieving a High Pass on a University foreign language reading examination, preferably by the end of the second year. The language will be specified by the student's advisory committee. (A foreign language is required only for the Ph.D. degree. No foreign language is required for the M.A.)

Phase III is a pre research training period during which the student hones a dissertation proposal and grant applications and develops advanced research skills. Upon fulfillment of all pre dissertation academic requirements and the acceptance of the dissertation proposal at a hearing in the department, the student is admitted to candidacy for the Ph.D. degree and proceeds to research and/or field work and the writing of the dissertation.

The linguistic anthropologist is concerned with phonetic, phonological, grammatical, semantic, and paralinguistic systems and with their relations to social, cultural and personal ones. A student who chooses linguistic anthropology as the major sub field within the Department of Anthropology should prepare at least one sub field each in linguistics and anthropology and satisfy the language requirement. Students of linguistic anthropology are generally advised to take at least six courses in technical linguistics.

JOINT DEGREE IN ANTHROPOLOGY AND LINGUISTICS

In addition to linguistic anthropology as a sub field within the Department of Anthropology, there is also a joint Ph.D. program available to students who are admitted first to the Department of Anthropology and subsequently to the Department of Linguistics. Joint degree students complete the requirements of both departments, including distinct introductory and advanced courses stipulated by each, the departmental qualifying examinations in appropriate special fields, and the language requirements, including additional foreign languages for the Linguistics Ph.D. The student's dissertation advisory committee consists of three or more members of the faculty; at least one must be a member of the Department of Anthropology but not the Department of Linguistics, and at least one in Linguistics but not in Anthropology. After approval for hearing by the advisory committee, the student's dissertation proposal must be approved in a hearing open to the faculty of both departments, and similarly for the final defense of the single doctoral dissertation that the student writes.

Admission to the Joint Degree Program in Anthropology and Linguistics cannot be approved until at least the second year, after successful completion of the core (first year) coursework and examinations in Linguistics, although students should declare interest in the joint program on the graduate application and to the chair of the Department of Anthropology and to the linguistic anthropologists soon after arriving on campus.

ARCHAEOLOGY

The archaeology program emphasizes the comparative study of complex societies throughout the world grounded in a close articulation of archaeology, history and sociocultural anthropology. The program stresses the integration of social and cultural theory in the practice of archaeology and, in particular, forges strong links with the historical anthropology that is one of the recognized strengths of the department. In addition to preparing archaeology students for anthropologically informed fieldwork and interpretation, an important element of this interdisciplinary approach is the inauguration of a training program offering students the methodological skills and theoretical grounding necessary to undertake innovative ethnoarchaeological research.

Current faculty strengths include archaeology of Latin America (focusing on the later prehistory and colonial periods of the Andes and Mesoamerica), the United States (focusing on the historical/urban archaeology of New Orleans and Birmingham, creole societies, race and ethnicity, material culture), Europe (from the Paleolithic to the Celtic Iron Age), and China and mainland southeast Asia (Bronze age, imperialism, cross cultural interactions) as well as ethnoarchaeology in Africa and experimental archaeology in South America. Associated faculty at the Oriental Institute and in other University departments specialize in complex societies of the Near East, Egypt, Greece, Rome, India, and China.

Research interests include: urbanism, state formation, imperialism, colonial interaction, industrialization, art and symbolism, spatial analysis, politics, ritual and religion, human environment interactions, agricultural systems, material culture, economic anthropology, political economy and the socio historical context and politics of archaeology. Faculty members in archaeology have major, ongoing field research projects in Bolivia, Peru, France, Spain, Cambodia, China, Senegal, and the southern & southeastern United States and also have research interests in Kenya.

The archaeology program requires that students complete a total of 18 courses to qualify for the Ph.D., some of which may be reading and research in the field of specialization. Students normally enroll in nine courses per year during their first two years in the program. Within the first two years, students will complete five required courses that are designed to provide a comprehensive grounding in social and cultural theory, as well as the theory and specific methods of archaeology. (A foreign language is required only for the Ph.D. degree. No foreign language is required for the M.A.)

In the first year, course requirements include The Development of Social and Cultural Theory offered over the autumn and winter quarters. The two quarter sequence is equivalent to four course credits. In the spring archaeology students take Theory and Method in Archaeology, also a double credit course. The remaining course requirements in the program, to be met in the first or second year, are Introduction to Chicago Anthropology, and a quantitative methods course approved by the faculty. For the rest of their course work, students enjoy a broad range of elective courses in archaeology, sociocultural anthropology, history, physical anthropology, Classical or Near Eastern studies, statistics, computer science and geophysical sciences. In addition, archaeology students are strongly encouraged to gain technical experience in one of the university's regular summer field schools or other research excavations.

By the end of the first year in residence, the archaeology student must form an advisory committee of three faculty members. The committee will be chaired by the faculty member of the student's choice. With the exception of those students with A.M. theses from other institutions which are approved by the department, each student will complete an A.M. paper during the second year. In addition, by the end of year two, each student takes a written and oral examination from the members of his/her advisory committee in the areas of chosen specialization. The oral examination, lasting roughly an hour and a half, is designed to test basic command of the literature and methods necessary to pursue Ph.D. research in a chosen area. In the third year, having passed the qualifying exam, archaeology students are required to take the archaeological research design seminar. By the end of the third year, students must defend a dissertation proposal before the faculty and interested students. Upon fulfillment of all academic requirements and the acceptance of the dissertation proposal, students are admitted to candidacy for the Ph.D. degree.

PHYSICAL ANTHROPOLOGY

Courses in physical anthropology, mainly directed towards evolutionary anthropology and primatology, are offered in the department; but applications for graduate study in Physical Anthropology are no longer accepted.

COURSES

The department website offers descriptions of graduate courses scheduled for the current academic year: <https://anthropology.uchicago.edu/graduate-programs/courses>



DEPARTMENT OF COMPARATIVE HUMAN DEVELOPMENT

Chair

Jennifer Cole

Professors

Susan Goldin-Meadow

Sydney Hans

Susan Levine

John A. Lucy

Dario Maestriperi

Richard Shweder

Associate Professors

William Goldstein

Guanglei Hong

Micere Keels

Jill Mateo

Eugene Raikhel

Lindsey Richland

Assistant Professors

Michele Friedner

Anna Mueller

Faculty Associates

Kathleen Cagney

E. Summerson Carr

Salikoko Mufwene

Kristen Schilt

Linda Waite

Amanda Woodward

Emeritus Faculty

R. Darrell Bock

Mihaly Csikszentmihalyi

Irene Elkin

Ray Fogelson

Martha K. McClintock

David E. Orlinsky

Nancy Stein

Susan Stodolsky

Richard Taub

Judith Farquhar

The Department of Comparative Human Development is an interdisciplinary program at the critical edge of thought and research in the social sciences. We believe that social life is too complex and too exciting to be left within any single discipline. Consequently, we bring together anthropologists, biologists, linguists, psychologists, sociologists and methodologists whose methods and theories cross individual social science disciplines. We aim to advance the understanding of human development through innovative approaches that are balanced with the need for productive synergy and a coherent training program.

Faculty and students' current research examines issues of central concern to life course development, education, health, family, community, and society at large. We examine the ways social and political contexts as well as cultural and ethnic traditions shape individual and interpersonal functioning, the interplay between individual trajectories and broader processes of historical transformation, the mechanisms integrating biological and social levels of organization, and the cultural, linguistic, and psychological processes that mediate representations of and responses to vulnerability and distress. In addressing those issues, we highlight shifting categories such as race, class, nationality, age, gender, sexuality, and ability.

Our research is informed by theoretical perspectives from a plethora of interdisciplinary fields. These include socio-cultural anthropology, medical anthropology, medical sociology, behavioral biology, biopsychology, language and thought, cognitive and developmental psychology, cultural psychology, cultural sociology, social

psychology, educational psychology, and educational sociology. We employ a multitude of research methods ranging from experiments, surveys, network analysis, causal inference, to ethnography and discourse analysis.

Comparative: To understand is to compare. 'Comparative' means attention to likeness and difference. Work in the Department looks at how practices, ideologies, capabilities, behaviors, and experiences vary across time, between cultures, between demographic groups, between political and economic contexts, and between species.

Human: What makes us human? Research in the Department explores the socio-cultural, psychological and biological processes that humans share with, and that distinguish them from, each other and from non-human animals.

Development: This complex and vexed term highlights change over time. It raises debates about cultural values and provokes disagreement about desired states. Work in the Department critically examines understandings about development in relation to both individuals and societies, and it analyzes practices and policies that may promote or prevent it.

Students in the Department have pursued innovative and successful careers in anthropology, biology, education, human development, psychology, sociology, and quantitative research methodology.

The Department of Comparative Human Development was founded in 1940 by Carl Rogers (psychologist), Lloyd Warner (anthropologist), Robert Havighurst (sociologist), and Ralph Tyler (educator), to focus on the study of the individual within context. Its faculty believes that social life is too complex to be left within any one discipline. Consequently, the department brings together anthropologists, psychologists, sociologists, biologists, and applied statisticians whose work extends disciplinary boundaries and synthesizes theories, insights, questions, and methods from across the social science spectrum.

Some current research programs include the impact of globalization on family relationships and the transition to adulthood, the relation of language to thought, the health consequences of social experiences, cultural politics of gender and sexual identity, models of biopsychological development, the nature of the self, the ethical and moral issues raised by increasingly multicultural societies, variations in the learning process in educational settings, and methods for investigating causality.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <https://apply-ssd.uchicago.edu/apply/>

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

HUMAN DEVELOPMENT REQUIREMENTS

Terms:

Required - Every Comparative Human Development Graduate Student must take this course

Distribution - Students need to take at least one qualified course in each of the 5 Graduate areas

Specialization - Students must take two additional courses in one of the 5 areas in which they wish to focus their studies

Every CHD student must take the following courses for a quality grade:

1. CHDV 40000 HD Concepts (Required)
2. Five Distribution courses, one in each of the first five program areas. Each of these program areas is identified by a number 1-5. All courses in the CHD online Graduate Course Catalog are assigned a number which refers to the program area. Numbers that are followed by an asterisk such as 1*, 2*, 3*, 4* and 5* satisfy the distribution requirement. Numbers that do not have an asterisk do not satisfy distribution requirements, but will satisfy specialization requirements.
 - Comparative Behavioral Biology (1)
 - Society, Institutions, Culture and the Life Course (2)
 - Cultural Psychology, Psychological Anthropology, Immigration Studies (3)
 - Health, Vulnerability and Culture (4)
 - Language and Communication in Thought and Interaction (5)
 - Methods in Human Development Research (M)
3. Applied Statistics (one course requirement) from among the following :

PPHA 31000	Statistics for Public Policy I (**)	100
PPHA 31100	Statistics for Public Policy II (**)	100
SOCI 30004	Statistical Methods of Research	100
SOCI 30005	Statistical Methods of Research-II	100
STAT 22000	Statistical Methods and Applications	100
STAT 22400	Applied Regression Analysis	100
STAT 22600	Analysis of Categorical Data	100

(**) Both courses must be taken in sequence to fulfill requirement

4. A second Methods course (Required)

5. CHDV 42401 Trial Research in Human Development I and CHDV 42402 Trial Research in Human Development II (Required).

6. Two additional CHD courses in chosen area of specialization. If Methods in Human Development Research is your area of specialization, you must choose an additional area of specialization to take two courses in.

Students are not required to complete all these requirements by the end of their second year. However, they must have five quality grades by the end of spring of their first year, and ten quality grades by the end of the second year. A grade of B or better is required to satisfy the requirements of these courses. On average a graduate student should take at least two courses for quality grades in each quarter of their first two years. In addition, students will participate in elective courses and workshops in the department, and the University in consultation with their advisors.

REQUIRED COURSES

CHDV 40000 HD CONCEPTS WILL INTRODUCE STUDENTS TO THE HISTORY, THEORETICAL BASES, AND MAJOR AREAS OF INQUIRY IN THE DEPARTMENT OF COMPARATIVE HUMAN DEVELOPMENT. THIS COURSE IS TAKEN DURING THE FALL QUARTER OF THE FIRST YEAR.

The seminars (CHDV 42401 Trial Research in Human Development I and CHDV 42402 Trial Research in Human Development II) will launch students into their research projects and will guide them from the beginning to the completion of those projects. The seminar is taken in the spring quarter of the first year and the fall quarter of the second year. Trial Research papers are due by the beginning of the spring quarter of the second year. The trial research project must be completed and formally approved by the faculty during the spring quarter of the student's second year, then presented at the student Trial Research Conference. Students are expected to report regularly on the progress of their research to the trial research seminars. The trial research is carried out under the direction of the research advisor and is read by one other faculty member.

The one-course requirement in methods is meant to provide the students with the basic quantitative analytic skills necessary to understand and evaluate past research and to conduct research. This requirement should be met within the first two years. The requirement for a second method course can be fulfilled by choosing from an elective list. Examples of methods courses include Mixed Methods Approaches to Policy Research, Ethnographic Writing, Ethnographic Methods, Behavior Observations, Language Analysis in the Social Sciences, Social Experiments, Introduction to Causal Inference, Mediation, Moderation, and Spillover Effects, Applications of Hierarchical Linear Models, Applied Longitudinal Data Analysis, Spatial Regression Analysis, Demographic Technique, Maximum Likelihood, Statistical Applications, Logic of Social Science Inquiry, and others.

In addition, students will participate in elective courses in the Department and the University and are encouraged to participate in workshops outside the Department in consultation with their advisors.

A quality grade of B or better is required to satisfy the requirements of these courses. Students are expected to maintain an average of B+ or better. A student may petition courses to meet a needed requirement. A student who can demonstrate basic competence in the core curricular areas may petition the faculty through the Chair's office to place into an advanced course in the same area. A well-qualified student may place out of intermediate statistics by examination provided by the instructor of the statistics course.

Although students are not required to complete their course requirements by the end of their second year, a student must have received five quality grades by the spring of the first year, and ten quality grades by the end of the second year. On average a graduate student should take at least two courses for quality grades in each quarter of their first two years.

PROGRAM COUNSELING

Each student is given faculty assistance in (1) planning a program of courses and training; (2) fulfilling the Divisional and Departmental steps leading to the Ph.D. degree; (3) obtaining a professional position after graduation. Each entering student is assigned to a faculty advisor who will serve until the student chooses a research advisor.

Every student must have an advisor. The CHD Chair will assign an advisor to entering students. As students progress through the program and define their interests, they may wish to change advisors in line with their research activities. The Department Administrator should be informed in writing of such changes. The faculty should be actively consulted in connection with registration and other academic matters.

EVALUATIONS

All students are evaluated each year in the program. To be considered in good standing and for continuation of financial aid, first and second year students must have earned at minimum five quality grades (B or better) over autumn and winter quarters during the year by the time of the spring review, with satisfactory spring grades expected to follow.

First - fourth year students should schedule a meeting with the departmental administrator within the first two weeks of May to review their transcript, grades and status of the fulfillment of distribution requirements.

Each student will be formally evaluated early in the Spring quarter of their second year. The purpose of the evaluation will be to determine if the student is to be allowed to continue studies leading to the Ph.D. degree or is instead to be awarded a terminal M.A. degree. Financial aid recommendations will also be based on this review .

Three sets of data will be used to evaluate each student: course grades, faculty evaluations, and a Trial Research paper.

1. Course grades received by each student will be a part of the evaluation process. Given their special relevance, the CHD distribution courses must be taken for letter grades. Three of the five required distribution courses must be completed by the end of the winter quarter of the second year. All five must be completed by the end of the spring quarter of that year.
2. Faculty members who have worked with the student will be asked for their evaluation of the student. Students who have worked with non-CHD faculty may request the faculty member to submit a letter about them to the CHD evaluation committee.
3. The CHD evaluation committee will be responsible for collecting the evaluation data, conducting a preliminary review, and then presenting the data and their review for the consideration of the entire faculty. During the spring quarter of each year, the faculty, after reviewing the materials on each second-year student, will vote to award the student a terminal M.A. degree or to advance the student to further Ph.D. study.

WORKSHOPS

The University's Council on Advanced Studies oversees a series of interdisciplinary workshops, each of which reflects the research interests of a particular group of faculty members and graduate students. The following workshops are sponsored by faculty members and organized by graduate students from the Department of Comparative Human Development (often in collaboration with faculty and students from other departments): Comparative Behavioral Biology; Self and Subjectivity; Education. A full list of workshops is available at <http://cas.uchicago.edu/>

PROGRAM OF STUDY

The program of study is in many respects unique for each student. In addition to a basic program of courses, it includes other courses and seminars offered by the Comparative Human Development faculty, courses offered in related programs and departments in the University, and the resources of nearby institutions.

COMPARATIVE BEHAVIORAL BIOLOGY (1)

This area of study investigates behavioral and mental processes at the social, psychological and biological levels of organization in both humans and nonhuman animals. Current research is concentrated in three main areas. In the area of behavioral and reproductive endocrinology, research conducted with rodents and humans investigates the social and behavioral control of fertility and health and the role of hormone-behavior interactions in development throughout the life span. Specific topics of interest include mechanisms and function of menstrual synchrony, pheromonal communication, reproductive senescence, and the social behavioral modulation of aging and illness. In the area of comparative development, we use nonhuman primate and rodent models of parenting and development to investigate social, emotional, and endocrine aspects of mother infant attachment and infant development, with particular emphasis on interindividual variability both within and outside the normal range. Other topics of interest include affiliative and aggressive behavior, mating strategies, nonverbal communication and social cognition in rodents, primates and humans. In the area of social neuroscience, one topic of interest is evaluative processes, e.g., affective, attitudinal, or emotional operations by which individuals discriminate hostile from hospitable environments. Of interest as well is in the role of social and autonomic factors in individuals endocrine and cellular immune response to stress and illness vulnerability. Throughout, the research approach is characterized by the integration of social and biological levels of analysis. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30901	Biopsychology of Sex Differences *	100
CHDV 37500	Research Seminar Animal Behavior I **	100

CHDV 37502	Research Seminar in Animal Behavior II **	100
CHDV 37503	Research Seminar in Animal Behavior III **	100
CHDV 37861	Darwinism and Literature *	100
CHDV 37950	Evolution and Economics of Human Behavior	100
CHDV 40900	Behavioral Ecology *	100
CHDV 41451	Evolutionary Psychology	100
CHDV 48412	Publications, Grants, and the Academic Job Market *	100

(*) Satisfies the distribution requirement.

(**) All three quarters of sequence must be taken in order to receive a letter grade.

Society, Institutions, Culture and the Life Course (2)

The Department has a long tradition of examining “development” not just in childhood, but over the entire life course. A basic premise of our approach is that how people change over their lives is shaped by, and also shapes, social institutions, cultural practices, material circumstances and biological potential. We are also interested in how normative models of human development become institutionalized, materialized, and potentially contested as they travel across different cultural or economic settings. Some current areas of research include the influence of families, peers, schools, and neighborhoods on individual trajectories and outcomes; the role of youth and generational change in contemporary social life; and how early exposure to social and psychological deprivation or privilege due to educational and economic inequality contributes to subsequent vulnerability or resilience. A particular strength of the Department is the study of how children learn in school settings and the role of gesture in learning and cognition. Faculty focused on education have unique expertise in the quantitative analysis of large data sets to examine how changes in social policies or school-based interventions generate impacts on a series of developmental experiences associated with age, gender, race/ethnicity and social class. We also seek to develop new experimental and qualitative methods that assess the relationship between cognitive competence and interaction in instructional settings. Faculty and students interested in life-course issues also engage in cross-cultural research in places as diverse as Madagascar, Mexico, and India. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30305	Inequality in Urban Spaces	100
CHDV 30440	Inequality, Health and the Life Course	100
CHDV 31000	Cultural Psychology *	100
CHDV 31230	Stigma Lab	100
CHDV 31600	Introduction to Language Development	100
CHDV 31901	Language, Culture, and Thought *	100
CHDV 32100	Culture, Power, Subjectivity	100
CHDV 32101	Culture and Power, Part II: Discourse and Performativity	100
CHDV 40207	Development in Adolescents *	100
PSYC 43200	Seminar in Language Development (=CHDV 41601) *	100
CHDV 48412	Publications, Grants, and the Academic Job Market *	100

(*) Satisfies the distribution requirement.

Cultural Psychology, Psychological Anthropology, Immigration Studies (3)

Coming to terms with transnational migration and defining the scope and limits of tolerance for ethnic, religious and cultural diversity in North America and Europe has become one of the most pressing concerns for states and citizens in liberal democracies in the 21st century. The Department has long been a leading center for training in psychological anthropology, cultural psychology, culture and mental health, and the cross cultural study of human development, with special attention to what the anthropologist Clifford Geertz once called “the force and durability of ties of religion, language, custom, locality, race, and descent in human affairs.” Faculty and students investigate political, economic, as well as ethnic and cultural sources of diversity in emotional and bodily functioning, conceptions of disability, self and subjectivity, sexuality and gender identity, moral evaluation, and social cognition. We are also concerned with the social and political production and management of social differences as well as the conflicts that arise in the context of contemporary migration. Ethnographic field work both in the United States and abroad is an important component of this program, although students and faculty use multiple methods (qualitative and quantitative, observational, clinical and experimental) to understand the similarities and differences in psychological functioning across human populations. The program encourages the comparative social and cultural analysis of what people know, think, feel, desire and value in India, Japan, China, Russia, Africa and the Middle East, as well as research on the institutions, ideologies and economic circumstances that shape the experience of minorities in places ranging from Norway to France to the

United States. Example *courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30117	Transnational Kinship, Intimacy and Migration	100
CHDV 30320	Violence and Trauma	100
CHDV 30401	Intensive Study of a Culture: Lowland Maya History and Ethnography	100
CHDV 31000	Cultural Psychology *	100
CHDV 31901	Language, Culture, and Thought *	100
CHDV 32100	Culture, Power, Subjectivity *	100
CHDV 32101	Culture and Power, Part II: Discourse and Performativity *	100
CHDV 33301	Culture, Mental Health, and Psychiatry *	100
CHDV 33302	Disordered States	100
CHDV 42212	Love, Capital and Conjuality in Africa and India	100
CHDV 43600	Processes of Judgement and Decision Making	100
CHDV 44700	Seminar: Topics in Judgment and Decision Making	100
CHDV 45601	Moral Psychology & Comparative Ethics	100
CHDV 45699	When Cultures Collide: Multiculturalism in Liberal Democracies *	100
CHDV 48415	Displaced Nations and The Politics of Belonging	100
CHDV 48412	Publications, Grants, and the Academic Job Market *	100

(*) Satisfies the distribution requirement.

Health, Vulnerability and Culture (4)

The Department maintains a tradition of examining health, illness, disability, and vulnerability from a variety of social science perspectives. We understand health, illness, disability, and vulnerability as experiences that are deeply shaped by inter-related social, political-economic, and psychobiological processes. We are also committed to the idea that how human beings experience distress is inextricable from the ways in which we recognize, represent and respond to it. We are thus equally concerned with the biosocial mechanisms through which health, illness, disability, and vulnerability become embodied in particular persons, as we are with the cultural and linguistic processes through which concepts such as “health,” “illness,” “disability,” and “vulnerability” are produced, enacted, institutionalized and contested. A particular strength of our program is the study of mental health and illness and of psychiatry as a social institution. Current areas of research include culture and mental health; the comparative study of medical and healing systems; psychopathology and resilience across the life course; the psychosocial determinants of malignant and infectious disease; diffusion of suicide through social ties, disability and vulnerability as conditions of ethical and political life; colonialism and traumatic social memory; the social consequences of the neurosciences and genetics; and illness, subjectivity and embodiment. Faculty and students employ a range of ethnographic, experimental and epidemiological methods, and have carried out fieldwork in settings including China, France, India, Madagascar, Russia, Scandinavia and the United States. Example *courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30320	Violence and Trauma	100
CHDV 30405	Anthropology of Disability	100
CHDV 31230	Stigma Lab	100
CHDV 33301	Culture, Mental Health, and Psychiatry *	100
CHDV 33305	Critical Studies of Mental Health in Higher Education	100
CHDV 36400	Theories of Emotion and the Psychology of Well Being *	100
CHDV 40110	Color, Ethnicity, Cultural Context, and Human Vulnerability	100
CHDV 43770	Social Structure, Culture, and Human Development *	100
CHDV 44200	Emerging Concepts in Medical and Psychological Anthropology	100
CHDV 45205	Pushing The Boundary: Current Debates On Animals and The Species Divide	100
CHDV 46460	Disability, Dependency, and the Good Life	100

(*) Satisfies the distribution requirement.

Language and Communication in Thought and Interaction (5)

This area of study supports research and training on how language and other forms of social communication support and shape individual thought and social interaction. The program encompasses three intersecting areas. First, it compares communicative modalities across species, especially among the social mammals, with particular attention to the role played by language in human evolution and development by enabling the emergence of self, culture, and conceptual thought. Second, it compares linguistic and other communicative

traditions across human societies with respect to their effects on thought and interaction, with particular attention to the impact of language diversity, multilingualism, the interplay of verbal and nonverbal communication, and language socialization. And third, it compares both within and across societies the various specialized structures and discursive uses of language deployed within specialized institutional settings and ideological regimes such as education, therapy, science, religion, politics, etc. Across all three areas, there is an emphasis on bringing together a firm grounding in the formal analysis of the communicative modalities with substantive understanding of the psychological and social fields within which they operate. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 23900	Introduction to Language Development *	100
CHDV 31901	Language, Culture, and Thought *	100
PSYC 43200	Seminar in Language Development (=CHDV 41601) *	100
CHDV 43550	Gesture	100
CHDV 45501	Cognition and Education *	100
CHDV 53350	Gesture, Sign, and Language	100

(*) Satisfies the distribution requirement.

Methods in Human Development Research (M)

Research on human development over the life span and across social and cultural contexts thrives on multiple theoretical perspectives. This research requires creation and improvement of a wide range of research methods appropriately selected for and tailored to specific human development problems. Faculty in the department employ research methods that span the full range from primarily qualitative to primarily quantitative and to strategic mix of both. Across all the substantive domains in Comparative Human Development, theoretical understanding is greatly advanced by methodology; therefore the Department pays serious attention to research design, data collection, analytic strategies, and presentation, evaluation, and interpretations of evidence. The Department has contributed some of the most influential work on psychological scaling on the basis of the item response theory (IRT), multivariate statistical methods, causal inference methods for revealing moderation, mediation, and spillover effects, modeling of human growth, analysis of qualitative data, and methods for cross-cultural analysis. Current research interests include (a) assessment of individual growth and change in important domains of development that are often intertwined, (b) examination and measurement of the structure, process, and quality of individual and group experiences in institutionalized settings such as families, schools, clinics, and neighborhoods, and (c) evaluation of the impact of societal changes or interventions on human development via changes in individual and group experiences, with particular interest in the heterogeneity of growth, process, and impact across demographic sub-populations and across social cultural contexts. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30102	Introduction to Causal Inference *	100
CHDV 39301	Qualitative Research Methods	100
SOCI 40112	Ethnographic Methods	100
CHDV 43248	Research Methods in Behavior and Development	100

(*) Satisfies the distribution requirement.

2019-2020 OFFERINGS

The courses below are a guide. For up-to-date course plans, please visit Class Search (<http://registrar.uchicago.edu/classes>) or the Course List at humdev.uchicago.edu/page/courses

CHDV 30102. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverse-probability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for cross-section and panel data, and fixed effects model. Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005 is a prerequisite. This course is a prerequisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong, K. Yamaguchi Terms Offered: Winter

Prerequisite(s): Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005

Note(s): CHDV Distribution: M; M

Equivalent Course(s): SOCI 30315, PBHS 43201, STAT 31900, CHDV 20102, PLSC 30102, MACS 51000

CHDV 30510. Computational Content Analysis. 100 Units.

A vast expanse of information about what people do, know, think, and feel lies embedded in text, and more of the contemporary social world lives natively within electronic text than ever before. These textual traces range from collective activity on the web, social media, instant messaging and automatically transcribed YouTube videos to online transactions, medical records, digitized libraries and government intelligence. This supply of text has elicited demand for natural language processing and machine learning tools to filter, search, and translate text into valuable data. The course will survey and practically apply many of the most exciting computational approaches to text analysis, highlighting both supervised methods that extend old theories to new data and unsupervised techniques that discover hidden regularities worth theorizing. These will be examined and evaluated on their own merits, and relative to the validity and reliability concerns of classical content analysis, the interpretive concerns of qualitative content analysis, and the interactional concerns of conversation analysis. We will also consider how these approaches can be adapted to content beyond text, including audio, images, and video. We will simultaneously review recent research that uses these approaches to develop social insight by exploring (a) collective attention and reasoning through the content of communication; (b) social relationships through the process of communication; and (c) social state

Instructor(s): James Evans Terms Offered: Winter

Equivalent Course(s): MACS 60000, SOCI 40133

CHDV 30901. Biopsychology of Sex Differences. 100 Units.

This course will explore the biological basis of mammalian sex differences and reproductive behaviors. We will consider a variety of species, including humans. We will address the physiological, hormonal, ecological and social basis of sex differences. To get the most from this course, students should have some background in biology, preferably from taking an introductory course in biology or biological psychology.

Instructor(s): Mateo, J. Terms Offered: Autumn

Equivalent Course(s): PSYC 31600, EVOL 36900, GNSE 30901

CHDV 31000. Cultural Psychology. 100 Units.

There is a substantial portion of the psychological nature of human beings that is neither homogeneous nor fixed across time and space. At the heart of the discipline of cultural psychology is the tenet of psychological pluralism, which states that the study of "normal" psychology is the study of multiple psychologies and not just the study of a single or uniform fundamental psychology for all peoples of the world. Research findings in cultural psychology thus raise provocative questions about the integrity and value of alternative forms of subjectivity across cultural groups. In this course we analyze the concept of "culture" and examine ethnic and cross-cultural variations in mental functioning with special attention to the cultural psychology of emotions, self, moral judgment, categorization, and reasoning.

Instructor(s): R. Shweder Terms Offered: Autumn

Prerequisite(s): Undergraduates must be in third or fourth year.

Note(s): CHDV Distribution: B, C

Equivalent Course(s): PSYC 23000, ANTH 35110, AMER 33000, GNSE 21001, GNSE 31000, CHDV 21000, ANTH 24320, PSYC 33000

CHDV 31230. Stigma Lab. 100 Units.

The concept of stigma is mobilized to explain a wide range of practices and experiences both in scholarship and everyday life. In this course, we critically engage readings on stigma from across the social sciences in order to develop a genealogy of how the concept emerged. We then read a series of ethnographic and other social science texts to analyze how the concept is utilized. Finally, students consider how stigma functions as an analytic and explanatory model in their own work. It is important that students enrolled in this course have a research project-- proposed or actual-- involving stigma in some way-- or that they are interested in working through stigma as a concept collectively.

Instructor(s): M. Friedner Terms Offered: Winter

Prerequisite(s): Advanced undergraduates.

Note(s): CHDV Distribution: C, D; 2, 4

Equivalent Course(s): MAPS 31230, CHDV 21230, ANTH 35140

CHDV 31600. Introduction to Language Development. 100 Units.

This course addresses the major issues involved in first-language acquisition. We deal with the child's production and perception of speech sounds (phonology), the acquisition of the lexicon (semantics), the comprehension and production of structured word combinations (syntax), and the ability to use language to communicate (pragmatics).

Instructor(s): S. Goldin-Meadow Terms Offered: Winter

Equivalent Course(s): PSYC 33200, PSYC 23200, LING 21600, LING 31600, EDSO 23200, CHDV 23900

CHDV 33301. Culture, Mental Health, and Psychiatry. 100 Units.

While mental illness has recently been framed in largely neurobiological terms as "brain disease," there has also been an increasing awareness of the contingency of psychiatric diagnoses. In this course, we will draw upon readings from medical and psychological anthropology, cultural psychiatry, and science studies to examine this paradox and to examine mental health and illness as a set of subjective experiences, social processes, and objects of knowledge and intervention. On a conceptual level, the course invites students to think through the complex relationships between categories of knowledge and clinical technologies (in this case, mainly psychiatric ones) and the subjectivities of persons living with mental illness. Put in slightly different terms, we will look at the multiple links between psychiatrists' professional accounts of mental illness and patients' experiences of it. Questions explored include: Does mental illness vary across social and cultural settings? How are experiences of people suffering from mental illness shaped by psychiatry's knowledge of their afflictions?

Instructor(s): E. Raikhel Terms Offered: Autumn

Note(s): CHDV Distribution, C, D

Equivalent Course(s): HIPS 27302, CHDV 23301, ANTH 24315, HLTH 23301, ANTH 35115

CHDV 33305. Critical Studies of Mental Health in Higher Education. 100 Units.

This course draws on a range of perspectives from across the interpretive, critical, and humanistic social sciences to examine the issues of mental health, illness, and distress in higher education.

Instructor(s): E. Raikhel Terms Offered: Winter

Prerequisite(s): Registration by instructor consent only

Note(s): CHDV Course Distribution Areas: D; 4

Equivalent Course(s): ANTH 35133, ANTH 24333, CHDV 23305

CHDV 37860. History of Evolutionary Behavioral Sciences. 100 Units.

This course will consist in lectures and discussion sessions about the historical and conceptual foundations of evolutionary behavioral sciences (evolutionary anthropology, evolutionary psychology, ethology, comparative behavioral biology), covering the period from the publication of Charles Darwin's *The Origin of Species* up to the present day. Topics will include new theoretical developments, controversies, interdisciplinary expansions, and the relationships between evolutionary behavioral sciences and other disciplines in the sciences and the humanities.

Instructor(s): D. Maestripietri Terms Offered: Autumn

Prerequisite(s): N/A

Equivalent Course(s): HLTH 27860, KNOW 27860, CHSS 37860, CHDV 27860, HIPS 27860

CHDV 37861. Darwinism and Literature. 100 Units.

In this course we will explore the notion that literary fiction can contribute to the generation of new knowledge of the human mind, human behavior, and human societies. Some novelists in the late 19th and early 20th century provided fictional portrayals of human nature that were grounded into Darwinian theory. These novelists operated within the conceptual framework of the complementarity of science and literature advanced by Goethe and the other romantics. At a time when novels became highly introspective and psychological, these writers used their literary craftsmanship to explore and illustrate universal aspects of human nature. In this course we read the work of several novelists such as George Eliot, HG Wells, Joseph Conrad, Jack London, Yuvgeny Zamyatin, Leopold von Sacher-Masoch, Italo Svevo, and Elias Canetti, and discuss how these authors anticipated the discoveries made decades later by cognitive, social, and evolutionary psychology.

Instructor(s): D. Maestripietri & R. Richards Terms Offered: Autumn

Equivalent Course(s): HIST 34921, HIST 24921, CHDV 27861, CHSS 34921, HIPS 24921, KNOW 31418, KNOW 21418

CHDV 40000. HD Concepts. 100 Units.

Our assumptions about the processes underlying development shape how we read the literature, design studies, and interpret results. The purpose of this course is two-fold in that, first, it makes explicit both our own assumptions as well as commonly held philosophical perspectives that impact the ways in which human development is understood. Second, the course provides an overview of theories and domain-specific perspectives related to individual development across the life-course. The emphasis is on issues and questions that have dominated the field over time and, which continue to provide impetus for research, its interpretation, and the character of policy decisions and their implementation. Stated differently, theories have utility and are powerful tools. Accordingly, the course provides a broad basis for appreciating theoretical approaches to the study of development and for understanding the use of theory in the design of research and its application. Most significant, theories represent heuristic devices for "real time" interpretations of daily experiences and broad media disseminated messages.

Instructor(s): J. Lucy Terms Offered: Autumn

Prerequisite(s): CHD Grad Students Only

Note(s): Required Course for Comparative Human Development Graduate Students

CHDV 40192. Seminar: The Family. 100 Units.

This seminar will focus on classic and current readings on the family, including the family as an institution, changes in family structure and function, new family forms, cohabitation, marriage, union dissolution, fertility, sexuality, working families, intergenerational relations, and family policy. We will discuss the readings for the week, with a focus on evaluating both the research and the ideas. Students will develop a research project on the family and prepare a paper outlining the project, providing a theoretical framework, background, hypotheses and approach. This might serve as the basis for a qualifying paper.

Instructor(s): L. Waite Terms Offered: Autumn

Prerequisite(s): Advanced Undergrads Consent of Instructor

Equivalent Course(s): SOCI 40192

CHDV 40207. Development in Adolescents. 100 Units.

Adolescence is a period of rapid growth and development irrespective of circumstances, contextual conditions and supports; thus, it represents both significant challenges and unique opportunities. The conceptual orientation taken acknowledges the noted difficulties but also speculates about the predictors of resiliency and the sources of positive youth development achieved. The course delineates the developmental period's complexity made worse by the many contextual and cultural forces due to socially structured conditions; that fact interact with youths' unavoidable and unique meaning-making processes. As a function of some youths' privileging circumstances versus the low resource and chronic conditions of others, both coping and identity formation processes are emphasized as highly consequential. Thus, stage specific developmental processes are explored for understanding gap findings for a society's diverse youth given citizenship requirements expected of all. In sum, the course presents the experiences of diverse youth from a variety of theoretical perspectives. The strategy improves our understanding about the "what" of human development as well as dynamic insights about the "how" and "why." Ultimately, the conceptual orientation described is critical for 1) designing better social policy, 2) improving the training and support of socializing agents (e.g., teachers), and 3) enhancing human developmental outcomes (e.g., resilient patterns).

Instructor(s): M. Spencer Terms Offered: Autumn

Prerequisite(s): Graduate students only.

Note(s): CHDV Distribution: 2*

Equivalent Course(s): CRES 40270

CHDV 40213. Adolescent Society. 100 Units.

While the manifest function of schools is to provide an education, schools also serve as the primary extra-familial socializing institution during adolescence. This social side of school is quite important to youth development. Indeed, it is within this adolescent society that youth explore their identities, engage in risky or prosocial behaviors, form important social relationships, and learn values and ideals that can shape their long-term educational and occupational trajectories as well as their mental and physical health. In this course, we examine the role that the adolescent society plays in youth development, from early adolescence through early adulthood and from middle school through college contexts.

Instructor(s): Mueller, A. Terms Offered: Spring

CHDV 40315. Inequality in Urban Spaces. 100 Units.

The problems confronting urban schools are bound to the social, economic, and political conditions of the urban environments in which schools reside. Thus, this course will explore social, economic, and political issues, with an emphasis on issues of race and class as they have affected the distribution of equal educational opportunities in urban schools. We will focus on the ways in which family, school, and neighborhood characteristics intersect to shape the divergent outcomes of low- and middle-income children residing with any given neighborhood. Students will tackle an important issue affecting the residents and schools in one Chicago neighborhood. This course is part of the College Course Cluster: Urban Design.

Instructor(s): M. Keels Terms Offered: Autumn

Note(s): CHDV Distribution: B; 2*

Equivalent Course(s): CRES 20305, PBPL 20305, CHDV 20305

CHDV 40900. Behavioral Ecology. 100 Units.

This graduate seminar will explore current advances of animal social behaviors in their natural contexts, including theoretical and methodological approaches. Format will include reading and analysis of empirical and review articles, as well as an oral presentation on a topic of interest to the student. We will meet once a week.

Instructor(s): J. Mateo Terms Offered: Winter

Prerequisite(s): Consent of Instructor

Note(s): CHDV Distribution, 1*

Equivalent Course(s): EVOL 40900

CHDV 41601. Seminar in Language Development. 100 Units.

Advanced undergraduates and MAPSS students should register for PSYC 33200. Psychology graduate students should register for PSYC 43200. This course addresses the major issues involved in first-language acquisition. We deal with the child's production and perception of speech sounds (phonology), the acquisition of the lexicon (semantics), the comprehension and production of structured word combinations (syntax), and the ability to use language to communicate (pragmatics).

Instructor(s): S. Goldin-Meadow Terms Offered: Winter

Equivalent Course(s): PSYC 43200

CHDV 42350. Development Over Life Course. 100 Units.

This course explores the biological and social patterning of lives from infancy through old age. Readings will include class and contemporary theory and research related to varied stages of the life course. Discussion will focus on paradigmatic themes in life course development such as: the social situation of lives in time and place, the interconnectedness of lives and generations, the nature of developmental transitions, the timing of life experiences, and the continuity of lives through time. Examples will be drawn from populations of traditional concern within social welfare policy and social work practice.

Equivalent Course(s): SSAD 50400

CHDV 42401-42402. Trial Research in Human Development - I-II.

This course is taken in the Spring quarter of the first year, and again in the Autumn quarter of the second year. The purpose of this seminar is to help students formulate and complete their trial research projects.

CHDV 42401. Trial Research in Human Development I. 100 Units.

This course is taken in the Spring quarter of the first year, followed by part II in the Autumn quarter of the second year. The purpose of this seminar is to help students formulate and complete their trial research projects.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): CHD grad students only.

Note(s): CHDV Distribution, R

CHDV 42402. Trial Research in Human Development II. 100 Units.

Second in required Trial Research Seminar sequence. This course is taken in the Autumn quarter of the second year. The purpose of this seminar is to help students formulate and complete their trial research projects.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): CHDV 42401 Trial Research in Human Development-I. CHD graduate students only.

Note(s): Required Course for Comparative Human Development Graduate Students

CHDV 42402. Trial Research in Human Development II. 100 Units.

Second in required Trial Research Seminar sequence. This course is taken in the Autumn quarter of the second year. The purpose of this seminar is to help students formulate and complete their trial research projects.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): CHDV 42401 Trial Research in Human Development-I. CHD graduate students only.

Note(s): Required Course for Comparative Human Development Graduate Students

CHDV 43600. Processes of Judgement and Decision Making. 100 Units.

This course offers a survey of research on judgment and decision making, with emphasis placed on uncertainty and (intrapersonal) conflict. An historical approach is taken in which the roots of current research issues and practices are traced. Topics are drawn from the following areas: evaluation and choice when goals are in conflict and must be traded off, decision making when consequences of the decision are uncertain, predictive and evaluative judgments under conditions of uncertain, incomplete, conflicting, or otherwise fallible information.

Instructor(s): W. Goldstein Terms Offered: Autumn

Equivalent Course(s): PSYC 43600

CHDV 44700. Seminar: Topics in Judgment and Decision Making. 100 Units.

This course offers a survey of research on judgment and decision making, with emphasis placed on uncertainty and (intrapersonal) conflict. An historical approach is taken in which the roots of current research issues and practices are traced. Topics are drawn from the following areas: evaluation and choice when goals are in conflict and must be traded off, decision making when consequences of the decision are uncertain, predictive and evaluative judgments under conditions of uncertain, incomplete, conflicting, or otherwise fallible information.

Instructor(s): W. Goldstein Terms Offered: Spring

Equivalent Course(s): PSYC 44700

CHDV 45699. When Cultures Collide: Multiculturalism in Liberal Democracies. 100 Units.

Coming to terms with diversity in an increasingly multicultural world has become one of the most pressing public policy projects for liberal democracies in the early 21st century. One way to come to terms with diversity is to try to understand the scope and limits of toleration for variety at different national sites where immigration from foreign lands has complicated the cultural landscape. This seminar examines a series of legal and moral questions about the proper response to norm conflict between mainstream populations and cultural minority groups (including old and new immigrants), with special reference to court cases that have arisen in the recent history of the United States.

Instructor(s): Richard Shweder Terms Offered: Winter

Equivalent Course(s): PSYC 45300, GNSE 45600, HMRT 35600, ANTH 45600, KNOW 45699

CHDV 48412. Publications, Grants, and the Academic Job Market. 100 Units.

In this graduate seminar we will discuss how to write and publish scientific articles, prepare grant applications, write CVs and job applications, and give job talks and interviews. In other words, everything you always wanted to know about being successful in academia but were afraid to ask.

Instructor(s): D. Maestripietri Terms Offered: Autumn

Equivalent Course(s): PSYC 48412, EVOL 48412



COMMITTEE ON CONCEPTUAL AND HISTORICAL STUDIES OF SCIENCE

Chair

- Adrian Johns

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- Lorraine Daston, Social Thought
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- James A. Evans, Sociology
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- Karin Knorr Cetina, Sociology and Anthropology
- Joseph Masco, Anthropology
- Karl Matlin, Department of Surgery
- Salikoko Mufwene, Linguistics
- Robert J. Richards, History
- Michael Rossi, History
- James T. Sparrow, History
- Stephen M. Stigler, Statistics

Emeritus Faculty

- Judith B. Farquhar, Anthropology
- Robert Perlman, Pediatrics
- William C. Wimsatt, Philosophy

The Committee on Conceptual and Historical Studies of Science (CHSS) is an interdisciplinary graduate program dedicated to advancing social, historical, and philosophical perspectives on science. Its areas of interest are broad, extending across the sciences and from the ancient world to the present day. Its faculty derive from many departments in the University, but particularly from History, Sociology, Anthropology, and Philosophy. We currently have major strengths in the study of evolutionary biology, psychology, and medicine, and in issues of the social activity of science, such as those relating to scientific authority, credibility, communication, and intellectual property. Students in the Ph.D. program have an opportunity to investigate such aspects of the scientific enterprise in depth, within its many rich historical, social, and philosophical contexts. They are also encouraged to grapple with the practices and approaches of science itself.

A brief description of the Committee's degree requirements is provided below, along with a representative list of courses that have been taught in recent years. For more complete information, you are encouraged to consult the website at <http://chss.uchicago.edu/>. This site contains an up to date description of faculty research interests, a complete statement of degree requirements, descriptions of individual courses being taught this year, a calendar of events (including meetings of the Committee's regular Workshop in the History, Philosophy, and Sociology of Science), a list of students who have received Ph.D.s from the Committee with the titles of their dissertations, and more.

Those with questions about the Committee should write to the Administrative Assistant, The Committee on Conceptual and Historical Studies of Science, The University of Chicago, 1126 East 59th Street, Chicago, IL 60637 (bethcalderon@uchicago.edu (bbmackev@uchicago.edu)).

APPLICATION

New students are admitted to the Committee through the Division of the Social Sciences. Applicants will be expected to submit undergraduate transcripts, scores from the general Graduate Record Examination, three letters of recommendation, short descriptions of their interests and/or reasons for wanting to study in CHSS, and a writing sample.

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <https://socialsciences.uchicago.edu/admissions/apply>. Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

Our application process is now entirely online (paperless). **All supporting material** - including letters of recommendation, transcripts, and writing samples (if required by a specific department) - **must be submitted electronically through the online application.**

More information about applying to programs in the University of Chicago's Division of the Social Sciences can be found at <https://socialsciences.uchicago.edu/admissions>.

DEGREE REQUIREMENTS

Every new student in CHSS is assigned an advisor, with whom he or she designs an individual program of study. Because the interests of students within CHSS vary widely, so too do these programs. Yet all students are expected to fulfill certain common requirements. Full and up to date details are given on the website, but the main elements are described here.

Students choose one of the following options:

1. **SCIENCE OPTION:** The student may earn a master's degree in a science (here understood to include mathematics, statistics, and social science).
2. **PHILOSOPHY OPTION:** The student may earn a master's degree in philosophy.
3. **HISTORY OPTION:** The student may earn a master's degree in history.

All students must complete a total of at least eighteen courses at the University for a grade of B or better, including at least seven CHSS courses. They must maintain at least a B+ average every quarter. Students must take a coherent series of six courses in a scientific area at the University, approved by the Committee, at a level appropriate to their preparation and of an appropriately advanced nature. (*The term science here includes social sciences as represented in the University's Division of the Social Sciences.*) This will normally mean that students must take at least some portion of their science work at a graduate level. Note that if a student enters the program with a master's degree in an appropriate area, the committee determines what level of credit is given for it.

The expected timetable is that students entering with a master's degree will complete coursework by the end of the second year, and those entering without will complete it by the end of year three (see the website for this and other details of the expected timetable).

Among the coursework of the first two years, students should take three courses offered by the committee: Philosophy of Science, History of Science, and Introduction to Science Studies.

Students must then pass two oral examinations. Each student has the option of taking the exams in history of science, philosophy of science, sociology of science, or anthropology of science; but at least one of the exams must be in either history of science or philosophy of science. These exams are, in part, designed by the students themselves.

At this point the student writes a dissertation proposal, and defends it at a hearing before his or her dissertation committee. He or she is then considered to have advanced to Ph.D. candidacy, and proceeds to write the dissertation itself.

COURSES

The department website offers descriptions of representative courses offered in recent years: <http://chss.uchicago.edu/page/courses>

CONCEPTUAL AND HISTORICAL STUDIES OF SCIENCE COURSES

CHSS 30806. Death and Disease in the Ancient World. 100 Units.

This course examines aspects of death and disease in the Greco-Roman world through a wide range of evidence and historical approaches. We will focus on the major problems of individual and public health in these cultures, how they understood health philosophically, scientifically, and culturally and what measures they took to ensure it (or not). Topics will range from bacterial infections to environmental pollutants to personal hygiene. We will also examine how many aspects of ancient medicine were practiced and theorized. Later in the quarter we will consider various aspects of death: logistical and practical, cultural and religious.

Instructor(s): M. Andrews Terms Offered: Winter

Equivalent Course(s): CLAS 34019, HIST 20806, HIPS 20806, CLCV 24019, HIST 30806

CHSS 30924. Science, Modernity, and Anti-Modernity. 100 Units.

Equivalent Course(s): SCTH 30924, HIST 44905

CHSS 30925. The Humanities as a Way of Knowing. 100 Units.

Despite intertwined histories and many shared practices, the contemporary humanities and sciences stand in relationships of contrast and opposition to one another. The perceived fissure between the "Two Cultures" has been deepened by the fact that the bulk of all history and philosophy of science has been devoted to the natural sciences. This seminar addresses the history and epistemology of what in the nineteenth century came to be called the "sciences" and the "humanities" since the Renaissance from an integrated perspective. The historical sources will focus on shared practices in, among others, philology, natural history, astronomy, and history. The philosophical source will develop an epistemology of the humanities: how humanists know what they know. Equivalent Course(s): HIST 29517, KNOW 40303, PHIL 20925, CLAS 37316, HIST 39517, SCTH 30925, PHIL 30925

CHSS 30927. Knowledge as a Platter: Comparative Perspectives on Knowledge Texts in the Ancient World. 100 Units.

In various ancient cultures, sages created the new ways of systematizing what was known in fields as diverse as medicine, politics, sex, dreams, and mathematics. These texts did more than present what was known; they exemplified what it means to know - and also why reflective, systematic knowledge should be valued more highly than the knowledge gained from common sense or experience. Drawing on texts from Ancient India, Greece, Rome, and the Near East, this course will explore these early templates for the highest form of knowledge and compare their ways of creating fields of inquiry: the first disciplines. Texts include the Arthashastra, the Hippocratic corpus, Deuteronomy, the Kama Sutra, and Aristotle's *Parva naturalia*.

Equivalent Course(s): SALC 30927, HREL 30927, SCTH 30927, KNOW 31415

CHSS 30928. Thinking the Present through the Past: Classic Works of History since 1750. 100 Units.

As proudly empirical as the sciences, as interpretive as the humanities, and as analytical as the social sciences, history as the pursuit of knowledge about the past resists classification. Because all history is written through the lens of the present, most works of history cease to be read after a generation, especially during the modern period, as the pace of change accelerated. In this seminar we will read some of the exceptions, including works by Kant, Tocqueville, Michelet, cCassirer, Huizinga, Lovejoy, and Frances Yates, to understand how powerful vision of the past can transcend its own present.

Instructor(s): Lorraine Daston Terms Offered: Spring. This course will be taught spring 2019.

Prerequisite(s): Seminar - primarily graduate students; all students require the permission of the instructor.

Equivalent Course(s): KNOW 30928, HIST 45002, SCTH 30928

CHSS 30936. Wonder, Wonders, and Knowing. 100 Units.

In wonder is the beginning of philosophy," wrote Aristotle; Descartes also thought that those deficient in wonder were also deficient in knowledge. But the relationship between wonder and inquiry has always been an ambivalent one: too much wonder stupefies rather than stimulates investigation, according to Descartes; Aristotle explicitly excluded wonders as objects of inquiry from natural philosophy. Since the sixteenth century, scientists and scholars have both cultivated and repudiated the passion of wonder; ON the one hand, marvels (or even just anomalies) threaten to subvert the human and natural orders; on the other, the wonder they ignite fuels inquiry into their causes. Wonder is also a passion tinged with the numinous, and miracles have long stood for the inexplicable in religious contexts. This seminar will explore the long, vexed relationship between wonder, knowledge, and belief in the history of philosophy, science, and religion.

Instructor(s): Lorraine Daston Terms Offered: Spring. Course to be taught Spring 2020

Prerequisite(s): Reading knowledge of at least one language besides English, some background in intellectual history. Consent is required for both grads and undergrads. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): SCTH 30926, PHIL 30926, HIST 35318, KNOW 30926, HIST 25318

CHSS 31108. Time After Physics. 100 Units.

This course provides a historical survey of the philosophy of time. We begin with the problems of change, being and becoming as formulated in Ancient Greece by Parmenides and Zeno, and Aristotle's attempted resolution in the *Physics* by providing the first formal theory of time. The course then follows theories of time through developments in physics and philosophy up to the present day. Along the way we will take in Descartes' theory of continuous creation, Newton's Absolute Time, Leibniz's and Mach's relational theories, Russell's relational theory, Broad's growing block, Whitehead's epochal theory, McTaggart's A, B and C theories, Prior's tense logic, Belnap's branching time, Einstein's relativity theory and theories of quantum gravity. (B) (II)

Instructor(s): T. Pashby Terms Offered: Autumn

Equivalent Course(s): PHIL 31108, KNOW 21108, HIPS 21108, PHIL 21108, KNOW 31108

CHSS 31202. Goethe: Literature, Science, Philosophy. 100 Units.

This lecture-discussion course will examine Johann Wolfgang von Goethe's intellectual development, from the time he wrote *Sorrows of Young Werther* through the final states of *Faust*. Along the way, we will read a selection of Goethe's plays, poetry, and travel literature. We will also examine his scientific work, especially his theory of color and his morphological theories. On the philosophical side, we will discuss Goethe's coming to terms with Kant (especially the latter's third Critique) and his adoption of Schelling's transcendental idealism. The theme uniting the exploration of the various works of Goethe will be unity of the artistic and scientific understanding of nature, especially as he exemplified that unity in "the eternal feminine."

Instructor(s): R. Richards Terms Offered: Winter

Note(s): German is not required, but helpful.

Equivalent Course(s): PHIL 20610, HIST 25304, GRMN 35304, PHIL 30610, HIST 35304, GRMN 25304, HIPS 26701

CHSS 31413. Sex and Enlightenment Science. 100 Units.

What do a lifelike wax woman, a birthing dummy, and a hermaphrodite have in common? This interdisciplinary course seeks answers to this question by exploring how eighteenth-century scientific and medical ideas, technologies, and practices interacted with and influenced contemporary notions of sex, sexuality, and gender. In our course, the terms "sex," "Enlightenment," and "science" will be problematized in their historic contexts using a variety of primary and secondary sources. Through these texts, as well as images and objects, we will see how emerging scientific theories about sex, sexuality, and gender contributed to new understandings of the human, especially female, body. We will also see how the liberating potential of Enlightenment thought gave way to sexual and racial theories that insisted on fundamental human difference. Topics to be covered include theories about the "sex" of the enlightened scientist and the gendering of scientific practices.

Equivalent Course(s): GNSE 21413, HIPS 21413, KNOW 21413, HIST 22218

CHSS 31502. Sciences of Memory in the Twentieth Century. 100 Units.

This course will examine a series of episodes in the history of the understanding of autobiographical memory, beginning with the emergence of academic psychology, and also psychoanalysis in the late nineteenth century and ending with the "memory wars" of the 1980s and '90s. The course will include an examination of the yoked history of beliefs about individual and "collective" memory: the impact of memory therapies during the First and Second World Wars, the impact of innovations in brain surgery on beliefs about the physiological memory record and the neurophysiology of remembering, and the impact of the rise of forensic psychology on the popular, scientific, and legal understanding of memory.

Instructor(s): A. Winter Terms Offered: Spring

Equivalent Course(s): HIPS 28002, HIST 35505, HIST 25510

CHSS 32000. Introduction to Science Studies. 100 Units.

This course provides an introduction to the interdisciplinary study of science, medicine, and technology. During the twentieth century, sociologists, historians, philosophers, and anthropologists raised original, interesting, and consequential questions about the sciences. Often their work drew on and responded to each other, and, taken together, their various approaches came to constitute a field, "science studies." The course furnishes an initial guide to this field. Students will not only encounter some of its principal concepts, approaches and findings, but will also get a chance to apply science-studies perspectives themselves by performing a fieldwork project. Among the topics we may examine are: the sociology of scientific knowledge and its applications; actor-network theories of science; constructivism and the history of science; and efforts to apply science studies approaches beyond the sciences themselves.

Instructor(s): A. Johns, K. Knorr Cetina Terms Offered: Autumn. Offered in Autumn 2019.

Equivalent Course(s): HIPS 22001, ANTH 32305, SOCI 40137, KNOW 31408, HIST 56800

CHSS 32708. Planetary Britain, 1600-1900. 100 Units.

What were the causes behind Britain's Industrial Revolution? In the vast scholarship on this problem, one particularly heated debate has focused on the imperial origins of industrialization. How much did colonial resources and markets contribute to economic growth and technological innovation in the metropole? The second part of the course will consider the global effects of British industrialization. To what extent can we trace anthropogenic climate change and other planetary crises back to the environmental transformation wrought by the British Empire? Topics include ecological imperialism, metabolic rift, the sugar revolution, the slave trade, naval construction and forestry, the East India Company, free trade and agriculture, energy use and climate change.

Equivalent Course(s): HIST 22708, HIPS 22708, KNOW 22708, KNOW 32808, HIST 32708, ENST 22708

CHSS 32709. Introduction to Philosophy of Quantum Mechanics. 100 Units.

In this class we examine some of the conceptual problems associated with quantum mechanics. We will critically discuss some common interpretations of quantum mechanics, such as the Copenhagen interpretation, the many-worlds interpretation and Bohmian mechanics. We will also examine some implications of results in the foundations of quantum theory concerning non-locality, contextuality and realism. (B) (II)

Instructor(s): T. Pashby Terms Offered: Spring

Prerequisite(s): Prior knowledge of quantum mechanics is not required since we begin with an introduction to the formalism. Only familiarity with high school geometry is presupposed but expect to be introduced to other mathematical tools as needed.

Equivalent Course(s): HIPS 22709, KNOW 22709, PHIL 32709, PHIL 22709

CHSS 32800. Experiencing Madness: Empathic Methods in Cultural Psychiatry. 100 Units.

This course provides students with an introduction to the phenomenological approach in cultural psychiatry, focusing on the problem of "how to represent mental illness" as a thematic anchor. Students will examine the theoretical and methodological groundings of cultural psychiatry, examining how scholars working in the phenomenological tradition have tried to describe the lived experiences of various forms of "psychopathology" or "madness." By the end of the course, students will have learned how to describe and analyze the social dimension of a mental health experience, using a phenomenologically-grounded anthropological approach, and by adopting a technical vocabulary for understanding the lived experiences of mental illness (for instance, phenomena, life-world, being-in-the-world, intentionality, epoché, embodiment, madness, psychopathology, melancholia/depression, schizophrenia, etc). In addition, given the ongoing problematic of "how to represent mental illness," students will also have the opportunity to think through the different ways of presenting their analysis, both in the form of weekly blog entries and during a final-week mock-workshop, where they will showcase their work in a creative medium appropriate to that analysis.

Equivalent Course(s): HIPS 22800, ANTH 24355, ANTH 35135, MAPS 32800, CHDV 32822

CHSS 32900. History of Statistics. 100 Units.

This course covers topics in the history of statistics, from the eleventh century to the middle of the twentieth century. We focus on the period from 1650 to 1950, with an emphasis on the mathematical developments in the theory of probability and how they came to be used in the sciences. Our goals are both to quantify uncertainty in observational data and to develop a conceptual framework for scientific theories. This course includes broad views of the development of the subject and closer looks at specific people and investigations, including reanalyses of historical data.

Instructor(s): S. Stigler Terms Offered: Spring

Prerequisite(s): Prior statistics course

Equivalent Course(s): STAT 26700, STAT 36700, HIPS 25600

CHSS 33500. Elementary Logic. 100 Units.

An introduction to the concepts and principles of symbolic logic. We learn the syntax and semantics of truth-functional and first-order quantificational logic, and apply the resultant conceptual framework to the analysis of valid and invalid arguments, the structure of formal languages, and logical relations among sentences of ordinary discourse. Occasionally we will venture into topics in philosophy of language and philosophical logic, but our primary focus is on acquiring a facility with symbolic logic as such.

Instructor(s): G. Schultheis Terms Offered: Autumn

Equivalent Course(s): HIPS 20700, PHIL 30000, PHIL 20100

CHSS 33600. Intermediate Logic. 100 Units.

This course provides a first introduction to mathematical logic. In this course we will prove the soundness and completeness of deductive systems for both propositional and first-order predicate logic. (B) (II)

Instructor(s): A. Vasudevan Terms Offered: Winter

Prerequisite(s): Elementary Logic (PHIL 20100) or its equivalent.

Equivalent Course(s): PHIL 29400, HIPS 20500, PHIL 39600

CHSS 34903. Victorian Science. 100 Units.

This course examines how Victorians sought to understand the natural world, and how their scientific work helped develop modern intellectual conventions, social relations, and institutions. We will study a wide range of topics from the 1830s through the beginning of the twentieth century in order to develop a kind of panorama of scientific life and to determine when key features of modern science came into being.

Instructor(s): A. Winter Terms Offered: Winter

Equivalent Course(s): HIST 34913, HIST 24913, HIPS 24913

CHSS 34921. Darwinism and Literature. 100 Units.

In this course we will explore the notion that literary fiction can contribute to the generation of new knowledge of the human mind, human behavior, and human societies. Some novelists in the late 19th and early 20th century provided fictional portrayals of human nature that were grounded into Darwinian theory. These novelists operated within the conceptual framework of the complementarity of science and literature advanced by Goethe and the other romantics. At a time when novels became highly introspective and psychological, these writers used their literary craftsmanship to explore and illustrate universal aspects of human nature. In this course we read the work of several novelists such as George Eliot, HG Wells, Joseph Conrad, Jack London, Yuvgeny Zamyatin, Leopold von Sacher-Masoch, Italo Svevo, and Elias Canetti, and discuss how these authors anticipated the discoveries made decades later by cognitive, social, and evolutionary psychology.

Instructor(s): D. Maestriperi & R. Richards Terms Offered: Autumn

Equivalent Course(s): HIST 34921, HIST 24921, CHDV 27861, CHDV 37861, HIPS 24921, KNOW 31418, KNOW 21418

CHSS 35010. Central Problems in the Philosophy of Biology. 100 Units.

The course will address central issues in philosophy of biology. We will begin by discussing the nature of evolutionary theory, focusing on issues of adaptation, selection vs. drift, units of selection and the concept of species. We shall then look into some central ideas in the philosophy of science—such as reduction and laws—and examine their application in biology. Last, we will discuss causal concepts such as mechanism, function and teleology. The format of the course will be short lectures followed by presentations by students and discussion. (B)

Instructor(s): C. Bloch Terms Offered: Winter

Equivalent Course(s): PHIL 22705, HIPS 22711, HIST 25010, HIST 35010, PHIL 32705

CHSS 35014. Introduction to Environmental History. 100 Units.

How have humans interacted with the environment over time? This course introduces students to the methods and topics of environmental history by way of classic and recent works in the field: Crosby, Cronon, Worster, Russell, and McNeill, etc. Major topics of investigation include preservationism, ecological imperialism, evolutionary history, forest conservation, organic and industrial agriculture, labor history, the commons and land reform, energy consumption, and climate change. Our scope covers the whole period from 1492 with case studies from European, American, and British imperial history.

Instructor(s): F. Albritton Jonsson Terms Offered: Winter

Equivalent Course(s): ENST 25014, HIPS 25014, HIST 25014, HIST 35014

CHSS 35110. Philosophy of History: Narrative & Explanation. 100 Units.

This lecture-discussion course will focus on the nature of historical explanation and the role of narrative in providing an understanding of historical events. Among the authors discussed are Edward Gibbon, Immanuel Kant, R. G. Collingwood, Leopold von Ranke, Lord Acton, Fernand Braudel, Carl Gustav Hempel, Arthur Danto, and Hayden White. (III)

Instructor(s): R. Richards Terms Offered: Winter

Equivalent Course(s): PHIL 20506, PHIL 30506, HIST 25110, HIST 35110, HIPS 25110, KNOW 31401

CHSS 35121. The Brazil-Argentina Nuclear Cooperation Agreement and Thermoelectric Transition in Brazil. 100 Units.

In this course we present a history of Brazil-Argentina nuclear cooperation and how Brazil is planning the transition of its electric matrix from predominantly hydraulic towards a mix with increased share of nuclear power. Proliferation risks are a main concern of international community when nuclear programs expansion is considered. The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials, created in 1991, has been fundamental in assuring the international community (via the International Atomic Energy Agency) that the nuclear materials and facilities of both countries are being used for peaceful purposes. Domestically, the debate has been environmental in nature, and concerns topics ranging from mining to power generation, and from radioactive materials disposal to radiation effects in living organisms and major accidents. These diplomatic, environmental, social and political issues are in turn dependent on technical details of the thermoelectric generating process, and this nexus of issues provides the topics for the course.

Instructor(s): Ramos, Alexandre Terms Offered: Autumn

Note(s): Tinker Visiting Professor Autumn 2018

Equivalent Course(s): HIPS 25121, LACS 35121, LACS 25121, PPHA 39921

CHSS 35208. Motion Pictures in the Human Sciences. 100 Units.

This course will examine the relationship between moving images, particularly motion-picture films, and the human sciences, broadly construed, from the early days of cinema to the advent of functional magnetic resonance imaging (fMRI). It will use primary source documents alongside screenings to allow students to study what the moving image meant to researchers wishing to develop knowledge of mind and behavior, and what they thought film could do that still photography and unmediated human observation could not. The kinds of motion pictures we will study will vary widely, from infant development studies to psychiatric films, from documentaries to research films, and from films made by scientists or clinicians as part of their laboratory or therapeutic work to experimental films made by seasoned filmmakers. We will explore how people used the recordings they made in their own studies, in communications with other scientists, and for didactic and other purposes. We will also discuss how researchers' claims about mental processes-perception, memory, consciousness, and interpersonal influence-drew on their understandings of particular technologies.

Terms Offered: Spring

Equivalent Course(s): CMST 39002, HIST 35208, HIST 25208, HIPS 25208, CMST 29002

CHSS 35307. History and Historiography of Science. 100 Units.

Science poses particular problems of historical understanding because it claims to reveal truths independent of human culture and historical change. Yet scholars have argued for decades that both the enterprise of science and, indeed, scientific knowledge itself can be accounted for historically. Since World War II a thriving discipline has arisen to pursue this objective. It has transformed our understanding of such central topics as the practice of experiment, the social meaning of nature, and the constitution of scientific authority. History and Historiography of Science offers an opportunity to see how historians of science have achieved this. We will read both canonical works and new research, in order to understand how they practice their craft of bringing history to bear on what seems the most unhistorical of subjects.

Instructor(s): A. Johns Terms Offered: Winter

Equivalent Course(s): HIST 25307, HIPS 25307, HIST 35307

CHSS 35309. History of Perception. 100 Units.

Knowing time. Feeling space. Smelling. Seeing. Touching. Tasting. Hearing. Are these universal aspects of human consciousness, or particular experiences contingent upon time, place, and culture? How do we come to know about our own perceptions and those of others? This course examines these and related questions through detailed readings of primary sources, engagement in secondary scholarship in the history and anthropology of sensation, and through close work with participants' own sensations and perceptions of the world around them.

Equivalent Course(s): KNOW 21404, ANTH 34308, HIST 25309, HIPS 25309, HIST 35309, KNOW 31404, ANTH 24308

CHSS 35408. The History of Suggestion. 100 Units.

This course examines the history of studies of the nature of what has commonly become known as suggestion--subtle influences over personal and group behavior that are thought to affect us outside our conscious awareness or control. The idea of an unconscious influence of this kind has deep roots, but it was only in the nineteenth and twentieth centuries that it became a major focus of research, controversy and reflection. The course will examine the development and significance of characterizations of suggestion and related concepts of subtle influence in medicine, advertising, and various fields in the sciences. Course materials will include primary sources in those areas, literary materials, and film.

Instructor(s): A. Winter Terms Offered: Winter

Equivalent Course(s): HIPS 25408, HIST 25408, HIST 35408

CHSS 35416. History of Technology in America. 100 Units.

From the very earliest days of the United States, science and technology have played a fundamental role in how Americans think of themselves and their communities. This course examines the entwined histories of technology and American culture between two especially dramatic periods of techno-scientific transformation: from the industrial push following the end of the Civil War to the "revolution" in genomics and informatics that characterizes our present age. From railroads, telegraphs, and telephones which drew distant towns into tight-knit networks; to electrical marvels which engendered new forms of consumption and socialization; to the wonders and perils of atomic power, space flight, and genetic engineering, different groups of Americans have wrestled with questions of community, identity, ideology and politics through and with products of technological innovation. In the course of investigating these and other topics, students will examine a variety of primary and secondary sources; and will be expected to write weekly response papers and two short research papers.

Instructor(s): M. Rossi Terms Offered: Winter

Equivalent Course(s): HIST 25416, HIPS 25416, HIST 35416

CHSS 37015. Graphic Medicine. 100 Units.

What do comics add to the discourse on health, illness, and disease? What insight do comics provide about the experience of illness? Can comics improve health? *Graphic Medicine: Concepts and Practice* is a course designed to introduce students to the basic concepts and practices of the emerging field of graphic medicine. Broadly defined as the "intersection between the medium of comics and the discourse of healthcare," graphic medicine allows for a unique exploration of health, disease, and illness through the narrative use of graphic and textual elements. Following a life-cycle framework, this course will examine the range of graphic medicine works that address topics such as pregnancy, abortion, mental health, sexuality, chronic medical diseases, HIV/AIDS, dementia, and end-of-life issues. Students will learn about conceptual and practical aspects of the field and be exposed to a variety of styles and genres that capture its breadth and diversity. In addition to reading, analyzing, and discussing the works, an important component of the class will be exercises during which students will create their own graphic medicine works. Taught by a nurse cartoonist (also a founding figure in the field) and a physician, the course also provides a perspective of the field from within the practice of medicine. Through didactics, discussion, and practice, this course will provide students with a thorough understanding of the field of graphic medicine.

Instructor(s): Brian Callender, MK Czerwiec Terms Offered: Winter

Prerequisite(s): No prior knowledge or experience of graphic novels, comics, drawing, or medicine required.

Equivalent Course(s): HIPS 27015, KNOW 37015, KNOW 27015, ENGL 27015

CHSS 37502. Energy and Energy Policy. 100 Units.

This course shows how scientific constraints affect economic and other policy decisions regarding energy, what energy-based issues confront our society, how we may address them through both policy and scientific study, and how the policy and scientific aspects can and should interact. We address specific technologies, both those now in use and those under development, and the policy questions associated with each, as well as with more overarching aspects of energy policy that may affect several, perhaps many, technologies.

Instructor(s): S. Berry, G. Tolley Terms Offered: TBD. May be offered 2019-20

Prerequisite(s): PQ: Third- or fourth-year standing. For ECON majors who want ECON credit for this course (ECON 26800): PQ is ECON 20100.

Equivalent Course(s): PSMS 39000, PPHA 39201, BPRO 29000, PBPL 29000, ENST 29000, ECON 26800

CHSS 37860. History of Evolutionary Behavioral Sciences. 100 Units.

This course will consist in lectures and discussion sessions about the historical and conceptual foundations of evolutionary behavioral sciences (evolutionary anthropology, evolutionary psychology, ethology, comparative behavioral biology), covering the period from the publication of Charles Darwin's *The Origin of Species* up to the present day. Topics will include new theoretical developments, controversies, interdisciplinary expansions, and the relationships between evolutionary behavioral sciences and other disciplines in the sciences and the humanities.

Instructor(s): D. Maestriperi Terms Offered: Autumn

Prerequisite(s): N/A

Equivalent Course(s): CHDV 37860, HLTH 27860, KNOW 27860, CHDV 27860, HIPS 27860

CHSS 37901. Kant: Critique of Pure Reason. 100 Units.

This will be a careful reading of what is widely regarded as the greatest work of modern philosophy, Immanuel Kant's *Critique of Pure Reason*. Our principal aims will be to understand the problems Kant seeks to address and the significance of his famous doctrine of "transcendental idealism". Topics will include: the role of mind in the constitution of experience; the nature of space and time; the relation between self-knowledge and knowledge of objects; how causal claims can be justified by experience; whether free will is possible; the relation between appearance and reality; the possibility of metaphysics. (B) (V)

Instructor(s): M. Boyle Terms Offered: Autumn

Equivalent Course(s): FNDL 27800, PHIL 37500, PHIL 27500, HIPS 25001

CHSS 38900. Philosophy of Mind and Science Fiction. 100 Units.

Could computers be conscious? Might they be affected by changes in size or time scale, hardware, development, social, cultural, or ecological factors? Does our form of life constrain our ability to visualize or detect alternative forms of order, life, or mentality, or to interpret them correctly? How do assumptions of consciousness affect how we study and relate to other beings? This course examines issues in philosophy of mind raised by recent progress in biology, psychology, and simulations of life and intelligence, with readings from philosophy, the relevant sciences, and science fiction. (B)

Instructor(s): W. Wimsatt Terms Offered: Spring

Equivalent Course(s): PHIL 33400, HIPS 25400, PHIL 23400

CHSS 39405. Advanced Logic. 100 Units.

Since Russell's discovery of the inconsistency of Frege's foundation for mathematics, much of logic has revolved around the question of to what extent we can or cannot prove the consistency of the basic principles with which we reason. This course will explore two main efforts in this direction. We will first look at proof-theoretic efforts towards demonstrating the consistency of various foundational systems, discussing the virtues and limitations of this approach. We will then closely examine Gödel's theorems, which are famous for demonstrating limits on the extent to which we can formulate consistency proofs. Much has been written on the implications of Gödel's theorems, and we will spend some time trying to carefully separate what they really entail from what they do not entail. Assessment will be by regular homework sets. Intermediate logic or prior equivalent required. (II) and (B).
 Instructor(s): K. Davey Terms Offered: Spring
 Prerequisite(s): Elementary Logic or equivalent
 Equivalent Course(s): PHIL 39405, PHIL 29405, HIPS 20905

CHSS 40196. Cultural Evolution. 100 Units.

This course explores the nature of process of cultural evolution. After establishing a background on the characteristics of biological evolution, we consider topics in cultural evolution that explore similarities and differences between processes of biological and cultural evolution, and theoretical and conceptual innovations necessary to deal with the latter, using a variety of approaches and methodologies, including agent-based modeling, "big data" approaches, and case studies. These will include topics like: the nature of inheritance, the limits of 'memes', the role of cognitive development, the coevolution of cognition and lithic technology, the scaffolding and evolution of social support, institutions, organizations and firms, the structure of scientific communities, entrenchment and the emergence of conventions and standards, the role of technology, horizontal vs. vertical transmission, multichannel inheritance, economic markets, the nature of innovation, and the role of history.
 Equivalent Course(s): PHIL 52805, SOCI 40196, EVOL 30196

CHSS 40200. Case Studies on the Formation of Knowledge-I. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module." A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu
 Module 1: Approaches to Knowledge Shadi Bartsch, Jack Gilbert The goal of this module is to identify central issues or debates in the theory of knowledge over the past century. Students will be introduced to basic issues in the sociology of knowledge, to the arguments for and against constructivist perspectives on knowledge, and to 21st century scientific standards for knowledge production. The course should provide students with a vocabulary and conceptual tools with which they argue about these issues and reflect upon the very conceptual tools they are using. Module 2: Democratic Knowledge Shadi Bartsch, Will Howell This module offers a variation on studies of the epistemic powers of democracy. Instead of asking questions such as how effective democracies are at gathering the knowledge they need to function, the module looks at
 Equivalent Course(s): MAPH 40200, HIST 40200, SOCI 40209, SETH 40200, PLSC 40202, MAPS 40201, CMLT 41802, KNOW 40200

CHSS 40201. Religion and Reason. 100 Units.

The quarrel between reason and faith has a long history. The birth of Christianity was in the crucible of rationality. The ancient Greeks privileged this human capacity above all others, finding in reason the quality wherein man was closest to the gods, while the early Christians found this viewpoint antithetical to religious humility. As religion and its place in society have evolved throughout history, so have the standing of, and philosophical justification for, non-belief on rational grounds. This course will examine the intellectual and cultural history of arguments against religion in Western thought from antiquity to the present. Along the way, of course, we will also examine the assumptions bound up in the binary terms "religion" and "reason."
 Equivalent Course(s): CLAS 46616, PHIL 43011, HIST 66606, KNOW 40201, DVPR 46616

CHSS 40203. Biopolitics & Posthumanism. 100 Units.

Much has been written about the possibility (or impossibility) of creating an integrated political schema that incorporates living status, not species boundary, as the salient distinction between person and thing. In this course, we will explore how biopolitical and posthumanistic scholars like Michel Foucault, Hannah Arendt, Giorgio Agamben, Jane Bennett, Cary Wolfe, and Donna Haraway have acknowledged (and advocated transcending) the anthropocentric *umwelt*, to borrow Jakob von Üexküll's influential term. In parallel with our theoretical readings, we will explore how actual legal systems have incorporated the nonhuman, with a particular focus on Anglo-American and transnational law. Our goal is to develop our own sense of an applied biopolitics-whether to our own research, to future legislation and jurisprudence, or both.
 Instructor(s): Nicolette I. Bruner Terms Offered: Winter
 Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. No instructor consent is required, but registration is not final until after the 1st week in order to give Ph.D. students priority.
 Equivalent Course(s): CMLT 40203, KNOW 40203, ENGL 40203

CHSS 40205. Ecological Thinking. 100 Units.

What is the environment, anyway? Is it a collection of resources? An entity in need of protection? An autonomous state of being? In this course, we will engage with writers and thinkers who have grappled with what it means to think ecologically. We will examine how environmental concerns have reached across borders to shape law, culture, and theories of knowledge on a global scale. Course themes will include environmental justice, the energy humanities, postcolonial environmentalisms, ecocriticism, ecofeminism, queer ecologies, and critical life studies. Readings will include works by Rachel Carson, William Cronon, Lawrence Buell, Helena Maria Viramontes, Christopher Stone, Rob Nixon, Tamara Giles-Vernick, Timothy Morton, and others.
 Instructor(s): Nicolette I. Bruner Terms Offered: Winter
 Equivalent Course(s): KNOW 40205

CHSS 40206. Assaulting the Paradigm: Franz Boas and His Contemporaries. 100 Units.

How do ideas succeed? What challenges do those who voice new ideas face as they try to gain adherents, and how do they rise to influence against the odds? This course examines how the unexpected, the unconventional, and the radically original can dethrone accepted truths. We will investigate this question through a case study of the anthropologist Franz Boas and his contemporaries, who assaulted the paradigm of race at the turn of the twentieth century. In addition to reading Boas, we will study the works of John Dewey, W. E. B. Du Bois, Sigmund Freud, Zora Neale Hurston, Claude Lévi-Strauss, Margaret Mead, and Thorstein Veblen. By tracing the mutual influence between Boas and thinkers in fields from psychology to philosophy, we can examine how knowledge is contested and propagated-including the challenges those who frame ideas face as they break away from the pack, the role of social networks in the success of concepts that go "against the grain" of conventional wisdom, and the special agency of multidisciplinary collaboration in the periods of ferment produced when authority is tested and new ideas are demanded.
 Instructor(s): Isaiah Lorado Wilner Terms Offered: Winter
 Equivalent Course(s): ANTH 44810, KNOW 40206

CHSS 40207. Human Rights and Humanitarianism in the Modern World. 100 Units.

The related concepts of human rights and humanitarianism form the basis of contemporary ethical and political thought. Acting in the name of "humanity" is seen as unequivocally noble, and very few of us would ever claim to be anti-humanitarian or anti-human rights. Yet the moral consensus surrounding these terms obscures a contested and often disturbing history. Rather than uncritically accepting a triumphalist story of the progressive victory of human rights and humanitarianism, this course will explore how these concepts were constructed over time, paying special attention to how they were used in practice, what kind of rhetorical work they accomplished, and whose interests they served. The course will consider the origins of modern concepts of humanity, rights, citizenship, and social responsibility during the enlightenment and trace how they developed over the course of the 19th and 20th centuries. We will study the role of human rights and humanitarianism in the transformative events and processes of modern history, including the rise of nation-states, the trans-Atlantic slave trade and its abolition, imperial expansion and decolonization, the world wars, and twentieth-century genocides. Students will leave the course with an understanding of how human rights and humanitarianism can be applied to their own research interests.
 Instructor(s): Yan Slobodkin Terms Offered: Winter
 Equivalent Course(s): KNOW 40207

CHSS 40208. Man and/as Machine. 100 Units.

Recently, Amazon employees fighting for better working conditions united under the slogan "We are not robots!" Recalling Karl Capek's R.U.R., which coined the word robot (from the Czech word for slave), the slogan suggests the importance of the machine as an object and a concept in relation to which human identity has been - and continues to be - defined. Throughout the history of human thought, the machine has existed as both something that we are like (for example, Descartes comparing the brain to a machine) but also as an opposite to humanity (as in the aforementioned slogan). This course will trace this tension between the machine as an 'Other' and as a metaphor for our human self from the early modern period to the present. Beginning with theoretical and philosophical writing on the importance of oppositions and binaries to human identity and language, it will trace the history of the idea of the machine as it relates to the human in texts by Rene Descartes, La Mettrie, Emile Zola, Karl Capek, Alan Turing, and Donna Haraway, among others. In addition to confronting the complexity and ambiguity of a concept that ubiquitously shapes our lives today, students in this course will also wrestle with broader humanistic questions regarding the nature of the Self, the boundaries between self and other, and the relationship between human identity and technology.
 Instructor(s): Anastasia Klimchynskaya Terms Offered: Winter
 Equivalent Course(s): KNOW 40208

CHSS 40300. Case Studies on the Formation of Knowledge II. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module." A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu

Module 1 : Foundations of Psychology in Linguistics and Biology Robert Richards, John Goldsmith This module will examine the ways several established disciplines, particularly linguistics and biology, came together in the mid-19th century to establish the science of psychology. Both linguistics and biology offered empirical and theoretical avenues into the study of mind. Researchers in each advanced their considerations either in complementary or oppositional fashion. Module 2 : Origins of the Social Construction of Knowledge Robert Richards, Alison Winter This module will trace the development of the idea of the social construction of knowledge and its relation to philosophy and history of science. The development lit a spark, then created a conflagration, and yet still smolders. Module 3 : The Politics of Philosophical Knowledge

Equivalent Course(s): MAPS 40301, HIST 64901, CMLT 41803, KNOW 40300, MAPH 40300, SCTH 40300, SOCI 40210, EALC 50300

CHSS 40304. Between Nature and Artifice: The Formation of Scientific Knowledge. 100 Units.

This course critically examines concepts of "nature" and "artifice" in the formation of scientific knowledge, from the Babylonians to the Romantics, and the ways that this history has been written and problematized by both canonical and less canonical works in the history of science from the twentieth century to the present. Our course is guided by three overarching questions, approached with historical texts and historiography, that correspond to three modules of investigation: 1) Nature, 2) Artifice, and 3) Liminal: Neither Natural nor Artificial.

Instructor(s): Margaret Carlyle, Eduardo Escobar, Jennifer P. Daly Terms Offered: Spring

Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. Ph.D. students must register with the KNOW 40304 course number in order for this course to meet the requirement.

Equivalent Course(s): CRES 40304, KNOW 40304, GNSE 40304, HIST 34920, HIPS 40304

CHSS 40305. The Archive of Early English Literature: Manuscripts, Books, and Canon. 100 Units.

This course will introduce students to early English literature through manuscript studies and book history. Throughout the course we will reflect on archival research as a critical practice: how do the material histories of early texts invite us to rethink the fundamental categories that organize literary history, like authorship or canonicity? The course will be both a practicum (teaching the basics of paleography, codicology, and textual editing) and an ongoing conversation about the archives of literary history, as sites of interpretation, memory, and erasure. We will meet in the Special Collections Research Center, and use the collections of the University of Chicago. We will first focus on the archives of Chicago's Chaucer Research Project and its principals, John Matthews Manly and Edith Rickert, who tried to establish an authoritative text of the *Canterbury Tales* in the early twentieth century. The second half of the course will focus on print culture and reading practice, with a focus on Chicago's collection of early modern commonplace books. Students will propose and pursue a research project in the U of C or Newberry Library collections, on a topic of their choosing. Students will produce a piece of scholarship that reflects both careful research in those collections and thoughtfulness about the place of that research in critical practice.

Instructor(s): J. Stadolnik Terms Offered: Spring

Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. No instructor consent is required, but registration is not final until after the 1st week in order to give Ph.D. students priority.

Equivalent Course(s): KNOW 40305, ENGL 40305

CHSS 40306. Race, Land, and Empire: History, Intersectionality, and the Meanings of America. 100 Units.

This seminar examines the making and meaning of the United States at the intersections of race, land, and empire. It considers a set of profound historical transformations that shape American and global life today: the conquest and colonization of the vast North American continent; the expansion of slavery and, with it, a system of global capitalism; the growth of opposition to that system of labor, culminating in the Civil War; the origins, as a result of that war, of a modern American nation-state; the ethnic cleansing and resettlement of the West; and the ascension of the United States of America to global eminence as a military power. Rather than framing these events within a national narrative about the idea of Manifest Destiny or an epic struggle toward the ideal of democracy—an approach that ignores most of the continent, divides the West from the North and South, and frames history itself as progress—this course makes use of a global lens to analyze the borders between and border crossings by American communities. Our foci will be the interrelations between regions and peoples; the processes that led to alteration; and the evolution of structures that redistributed social power

Instructor(s): Isaiah Lorado Wilner Terms Offered: Spring

Note(s): This course fulfills part of the KNOW Core Seminar requirement to be eligible to apply for the SIFK Dissertation Research Fellowship. No instructor consent is required, but registration is not final until after the 1st week in order to give Ph.D. students priority.

Equivalent Course(s): HIST 37013, KNOW 40306

CHSS 40310. Topics in Medical Anthropology. 100 Units.

This seminar will review theoretical positions and debates in the burgeoning fields of medical anthropology and science and technology studies (STS). We will begin this seminar exploring how "disease" and "health" in the early 19-century became inseparable from political, economic, and technological imperatives. By highlighting the epistemological foundations of modern biology and medicine, the remainder of this seminar will then focus on major perspectives in, and responses to, critical studies of health and medicine, subjectivity and the body, entanglements of ecology and health, humanitarianism, and psychoanalytic anthropology.

Instructor(s): P. Sean Brotherton Terms Offered: Spring, Spring 2020

Equivalent Course(s): CRES 24341, ANTH 24341, HIPS 24341, ANTH 40310

CHSS 42300. Scientific/Technological Change. 100 Units.

Equivalent Course(s): PHIL 20300, HIPS 20300, PHIL 30300

CHSS 45125. Seminar: Anthropology of the Body. 100 Units.

Drawing on a wide and interdisciplinary range of texts, both classic and more recent, this seminar will variously examine the theoretical debates of the body as a subject of anthropological, historical, psychological, medical and literary inquiry. The seminar will explore specific themes, for example, the persistence of the mind/body dualism, experiences of embodiment/alienation, phenomenology of the body, Foucauldian notions of bio-politics, biopower, queering the body, and the medicalized, gendered, and racialized body, among other salient themes.

Instructor(s): Sean Brotherton Terms Offered: Winter, Winter 2020

Equivalent Course(s): ANTH 45125, GNSE 45112, CHDV 45100

CHSS 47000. Reading And Research: CHSS. 100 Units.

Readings and Research for working on their PhD

CHSS 50755. Race/Capital/Extraction. 100 Units.

In the concluding chapters of *Capital*, Vol. 1, Karl Marx describes the origins of capitalism as an enterprise "written in the annals of mankind in letters of blood and fire." This process that Marx christened as "so-called primitive accumulation" rests fundamentally on the extraction of raw materials through colonial regimes of enclosure and the brutal exploitation of racialized labor. Nonetheless, the relationship between race and capital is not sufficiently elaborated in Marx's oeuvre. In turn, this course will reconsider Marxist concepts and categories through a critical evaluation of the analytical domains of "race," "capital," and "extraction." Moreover, students will consider the extent to which these domains productively modify each other: Does capitalism as an economic system depend on race as its ideological substrate? Can race be understood as an extractive project founded the violent enslavement and mercantile transit of racialized laboring subjects? How are the production of race and the accumulation of capital transformed by extractive economies of fossil fuels and metallic ores? To this end, students will consult the writings of W.E.B. Du Bois, C.L.R. James, Claudia Jones, Walter Rodney, Sidney Mintz, Norman Girvan, Lloyd Best and Kari Polanyi Levitt.

Instructor(s): Ryan Jobson Terms Offered: Winter, Winter 2020

Equivalent Course(s): CRES 50755, ANTH 50755

CHSS 51947. Techno-Natures: Anthropology and Science Fiction. 100 Units.

This graduate seminar explores science fiction narratives alongside anthropological theory and ethnographic practice in an attempt to develop novel theoretical and methodological interventions into questions concerning environment, governance, the body, and the relationship between humans and machines. In so doing the course aims to elaborate potential correspondences between anthropology and science fiction, with particular focus on re-conceptualizing nature in relation to post-apocalyptic narratives and crises of the Anthropocene. Following science fiction's speculative process, the course encourages a mode of inquiry that is experimental in order to explore the ways in which science fiction might operate as ethnographic thought experiment while challenging received understandings of the nature of empirical evidence. Course material will include science fiction texts as well as films.

Instructor(s): Michael Fisch Terms Offered: Winter, Winter 2019

Equivalent Course(s): ANTH 51947

CHSS 53003. Explanation. 100 Units.

This course surveys recent work on explanation across philosophical disciplines. Beginning with classic accounts of scientific explanation we will proceed to consider recent work on mechanical explanation, mathematical explanation, causal explanation (particularly in the physical and social sciences), the relation between explanation and understanding, and metaphysical explanation (particularly the idea of explanation as ground).

(II)

Instructor(s): T. Pashby Terms Offered: Spring

Equivalent Course(s): KNOW 53003, PHIL 53003

CHSS 53709. Conceptual Change and the a-priori. 100 Units.

(II) and (III)

Instructor(s): K. Davey Terms Offered: Winter

Equivalent Course(s): PHIL 53709

CHSS 54833. Engineered Worlds III: Terraformations. 100 Units.

This experimental seminar is part of a larger series of events in 2019-20 organized under the Engineered Worlds theme. It will be linked to activities on several other campuses as well as a spring 2020 conference. It examines the effects of industrial living on the biosphere and considers the multiple ways that people have been involved in terraforming planet earth. Attending to the ways that race, gender, and class inform industrial life, the seminar will explore (via social theory, ethnography, and history) ways of thinking about planetary scale problems that have local intensities that matter. This is an advanced graduate seminar. Registration is by permission of instructor.

Instructor(s): Joseph Masco Terms Offered: Autumn. Autumn 2019

Prerequisite(s): Consent of Instructor

Note(s): Course will involve Skyped in participants from another university.

Equivalent Course(s): ANTH 54833

CHSS 55100. The Development of Whitehead's Philosophy of Nature. 100 Units.

Alfred North Whitehead's philosophy has seen a resurgence of academic interest in recent years via a line of influence passing through Deleuze and Latour. Meanwhile, Whitehead's *Process and Reality* (1929) has gained a reputation, not undeserved, as possibly the most challenging English language text in the philosophical canon; it is seldom read in a department of philosophy. This is a pity, since the striking originality and creative potential of the philosophy contained within is unmatched. This course offers an opportunity for a gradual approach to understanding the "philosophy of organism" of *Process and Reality* by first taking in the foothills of earlier and less obtuse Whitehead texts *Concept of Nature and Science* and *The Modern World*. We will supplement these readings with newly discovered notes from Whitehead's Harvard lectures (published just last year). These documents reveal Whitehead in meditative mood, thinking through in real time his philosophical concerns. With their help, this course will explore the striking continuity of his earlier natural philosophy with the mature philosophy of *Process and Reality* and so provide a more gentle ascent to the heady realms of "actual entities", "conrescence" and "conceptual feelings" described therein. (II)

Instructor(s): T. Pashby Terms Offered: Autumn

Equivalent Course(s): KNOW 55100, PHIL 55100

CHSS 55978. AdvRdgs in Technoscience. 100 Units.

Advanced Readings

Equivalent Course(s): ANTH 55973

CHSS 57400. Freud Wars: Hist & Philo Rdgs. 100 Units.

Equivalent Course(s): HIST 57400

CHSS 58108. The Philosophy of Howard Stein. 100 Units.

Howard Stein's impressive body of work is notable for its tight integration of history of science with philosophy of science. Topics include: theories of spacetime structure (Newtonian and relativistic), the conceptual structure of quantum mechanics, the methodology of science in general and the character of scientific knowledge, and the history of physics and mathematics. Readings by Stein will be supplemented by primary historical texts and secondary philosophical literature, including selections from a forthcoming edited collection on Stein. (II)

Equivalent Course(s): PHIL 58108

CHSS 66900. Colloquium: Reading Marx's Ecology. 100 Units.

In this course we will read Marx's own ideas in their historical context and then explore commentaries on them by Paul Burkett, John Bellamy Foster, and others to see what of Marx's ideas can be productively used in environmental history and in discussions of the Anthropocene.

Instructor(s): F. Albritton Jonsson & D. Chakrabarty Terms Offered: Spring

Equivalent Course(s): HIST 66900

CHSS 70000. Advanced Study: Conceptual & Historical Studies of Science. 300.00 Units.

Advanced Study: Conceptual & Historical Studies of Science



DEPARTMENT OF ECONOMICS

Department Website: <http://economics.uchicago.edu>

Chair

- Robert Shimer

Professors

- Fernando Alvarez
- Stéphane Bonhomme
- David W. Galenson
- Mikhail Golosov
- Michael Greenstone
- Lars Peter Hansen
- James J. Heckman
- Ali Hortaçsu
- Greg Kaplan
- Steven Levitt
- John List
- Casey Mulligan
- Kevin M. Murphy
- Roger B. Myerson
- Derek A. Neal
- Philip J. Reny
- Azeem Shaikh
- Robert Shimer
- Nancy L. Stokey
- Harald Uhlig

Associate Professor

- Ufuk Akcigit
- Alessandra Voena

Assistant Professor

- Benjamin Brooks
- Leo Bursztyń
- Manasi Deshpande
- Michael Dinerstein
- Peter Hull
- Thibaut Lamadon
- Simon Mongey
- Doron Ravid
- Lawrence Schmidt
- Pietro Tebaldi
- Felix Tintelnot
- Alex Torgovitsky

Senior Lecturers

- Victor O. Lima
- Allen R. Sanderson
- Kotaro Yoshida

Lecturers

- Ryan Fang
- Kanit Kuevibulvanich
- Min Sok Lee

- Gina Pieters
- Christopher Roark

Emeritus Faculty

- Arnold C. Harberger
- Robert E. Lucas, Jr.
- Hugo F. Sonnenschein
- Lester G. Telser
- George S. Tolley

Chicago is a particularly innovative department of economics. The proportion of new ideas in economics that have emanated from or become associated with Chicago over the last forty years is astonishing. Any definition of the Chicago School would have to find room for the following ideas (in chronological order from the 1940s to the present): the economic theory of socialism, general equilibrium theory, general equilibrium models of foreign trade, simultaneous equation methods in econometrics, consumption as a function of permanent income, the economics of the household, the rationality of peasants in poor countries, the economics of education and other acquired skills (human capital), applied welfare economics, monetarism, sociological economics (entrepreneurship, racial discrimination, crime), the economics of invention and innovation, quantitative economic history, the economics of information, political economy (externalities, property rights, liability, contracts), the monetary approach to international finance, rational expectations in macroeconomics, and mechanism design. The unifying thread in all this is not political or ideological but methodological, the methodological conviction that economics is an incomparably powerful tool for understanding society.

The Department of Economics offers a program of study leading to the Ph.D. degree. A general description of the program is given below. For a more detailed explanation of the program requirements, as well as complete course descriptions and faculty bios, see the information for current students on our website at: <http://economics.uchicago.edu/graduate/>.

Admissions and Financial Aid

PREREQUISITES AND PREPARATION FOR GRADUATE STUDY

Each autumn, the Department of Economics enrolls an entering class of 20-25 graduate students who come from many countries around the world, and have been selected from a large and diverse group of applicants. Admission to graduate study requires a bachelor's degree (or equivalent). This degree need not be in economics, although some background in economics is certainly desirable. There are no formal course requirements for admission, but a strong background in mathematics is important. At the Ph.D. level, the study of economics requires an absolute minimum of one year of college calculus and a quarter (or semester) each of both matrix algebra and mathematical statistics (that is, statistics using calculus, as distinct from introductory statistics for social science). Prospective students who lack this preparation and have remaining free time in their undergraduate schedules are urged to take these courses before the beginning graduate study.

Beyond these basic prerequisites, many of our applicants have taken other advanced mathematics courses, such as real analysis, have completed some graduate-level classes in economics or related fields, or have had some other significant exposure to research in economics. Many strong applicants have ranked at or near the top of their graduating class.

ADMISSIONS PROCESS

Given the year-long sequence of courses, all new students must begin their study in the Autumn Quarter. The application process for admission and financial aid for Economics and all Social Sciences graduate programs is administered through the Divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at <https://apply-ssd.uchicago.edu/apply/>. Most required supplemental material can be uploaded into the application.

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

All applicants are required to submit scores from the Graduate Record Examination (GRE), General Test. Foreign applicants whose native language is not English must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The current University minimum score requirements are provided with the application.

CRITERIA FOR ADMISSIONS

The Committee on Admissions takes account of a wide range of factors to evaluate each applicant: the previous educational record, letters of recommendation, writing sample, previous research experience, the applicant's scores on the GRE (General Test) and the TOEFL or IELTS, the compatibility of the applicant's research interests with the program strengths in the department, and any special factors that the applicant may bring to the committee's attention. The committee evaluates each applicant on the basis of all material available;

no arbitrary cut-offs in terms of a student's grade point average or test scores are used. Applications must be complete for the January review, including scores from the GRE and TOEFL or IELTS if appropriate. These exams should be taken no later than November 1. In deciding when to register for the exams, applicants should particularly note our yearly cycle in order to assure that their applications receive full consideration.

PROGRAM OF STUDY

The program of study for the Ph.D. degree in Economics includes courses and comprehensive examinations in the three "Core" subjects of Price Theory; the Theory of Income, Employment, and the Price Level; and Quantitative Methods. In addition to the Core, Ph.D. requirements include the demonstration of competence in two Specialized Fields of concentration, courses in three elective Fields for the General Distribution requirement, a Research Paper, the approval of a Thesis Proposal, and the completion of the Doctoral Thesis.

The usual load is three courses per quarter for two years; this permits the completion of nine courses during the regular academic year of three quarters. The comprehensive examination for the Core subjects is given in the Summer Quarter. An examination in each Specialized Field of concentration is given once a year.

Ph.D. students may request permission to choose electives outside the Department of Economics for Field or General Distribution requirements. Satisfactory grades on course work done at the graduate level at another institution may also be used to satisfy part of the course requirements for General Distribution by petition to the Director of Graduate Studies.

With good preparation, students normally take five years to complete the Ph.D. Students who begin with the intention of obtaining the Ph.D. but who change their plans or fail to satisfy the Ph.D. requirements will in most cases be eligible for an M.A. degree.

The program of a typical Ph.D. student consists of the following sequence: in the first year, courses in price theory, the theory of income, and quantitative methods prepare the student for the Core examinations which are taken in the following summer; in the second year, courses and participation in workshops prepare the student for certification in two Specialized Fields (one by exam and one by GPA or exam) and help the student identify a Research Paper topic; in the third and fourth years, the student completes his/her Research Paper and General Distribution requirements, participates in workshops, formulates a thesis topic, and presents a Thesis Proposal Seminar at which the faculty formally approves the topic and admits the student to candidacy; in the fifth year, the student completes his/her Doctoral Thesis and gives a Public Lecture.

COURSES

The department website offers descriptions of graduate courses scheduled for the current academic year: <http://economics.uchicago.edu/graduate/>

JOINT PH.D. PROGRAM IN FINANCIAL ECONOMICS

The joint Ph.D. program in Financial Economics was established in the 2006-07 academic year and is run jointly by the Department of Economics in the Division of the Social Sciences and by the University of Chicago Booth School of Business (formerly the GSB). The aim of this program is to exploit the strengths of both sponsors in training Ph.D. students interested in financial economics. Core economics training is valuable for students seeking to do research in financial economics, and advances in financial economics have important spillovers to other areas of economics. It has long been a tradition in the Department of Economics to feature core economics training for their Ph.D. students, and the Booth School has well-recognized excellence in finance. Students in the joint program benefit from broad sets of instructors and classmates in both the Economics Department and the Booth School. They also hold an official status and are able to utilize resources in both Economics and the Booth School.

Upon completion of this program, students will be awarded a Doctor of Philosophy degree in Economics and Finance jointly from the Division of the Social Sciences and the Booth School.

PROGRAM ELEMENTS

Students must satisfy the requirements for the Ph.D. degree in both programs. This is viable because of the considerable overlap in what the two programs expect of their students.

ADMISSIONS

Admission to the joint program requires admission to both the doctoral program in the Department of Economics and to the doctoral program in the Booth School, but interested parties need only apply to one or the other program. Students may enter the joint program at the beginning of their doctoral studies. Those seeking admission to the joint program should apply online to either the Ph.D. program in the Department of Economics or the Booth School.

Students enrolled in doctoral studies in either the Economics Department or the Booth School may apply to the joint program at any time within their first two years in residence. Such students will still have to meet all of the requirements of both programs.

Enrollment and financial aid throughout a student's matriculation in the joint program will be administered by either the Division of the Social Sciences or the Booth School, as arranged by the two units. This designation will be for administrative purposes only and will not have programmatic implications. If a student's interests change, the Director of the Ph.D. program in the Booth School and the Dean of Students for the Social Sciences will facilitate transfers out of the joint program and into the doctoral program in Economics or Business.

ECONOMICS COURSES

ECON 30100. Price Theory I. 100 Units.

Theory of consumer choice, including household production, indirect utility, and hedonic indices. Models of the firm. Analysis of factor demand and product supply under competitive and monopolistic conditions. Static and dynamic cost curves, including learning by doing and temporary changes. Uncertainty applied to consumer and producer choices. Property rights and the effects of laws. Investment in human and physical capital.

Instructor(s): Kevin Murphy Terms Offered: Autumn

ECON 30200. Price Theory II. 100 Units.

The first five weeks of this course are a continuation of ECON 30100, Price Theory I. The second half of the course will be devoted to the Walrasian model of general competitive equilibrium as developed by Arrow and Debreu. This will begin with a brief development of the consumer and producer theories, followed by the welfare theorems connecting equilibria and optima and a treatment of the classical existence of equilibrium theorem. The core of an economy, a limit theorem relating the core to the set of competitive equilibria, and models in which agents are small relative to the market will also be considered. Finally we will study general equilibrium under some alternative assumptions; such as, informational asymmetries and rational expectations equilibrium, public goods and Lindahl equilibrium, financial general equilibrium and asset pricing.

Instructor(s): Roger Myerson, Phil Reny Terms Offered: Winter

ECON 30300. Price Theory III. 100 Units.

The course begins with expected utility theory, and then introduces the fundamental ideas of game theory: strategic-form games, Nash equilibrium, games with incomplete information, extensive-form games, and sequential equilibrium. Then the course will focus on the effects of informational asymmetries in markets and the problems of moral hazard and adverse selection. Topics include: optimal risk sharing, signaling and screening in competitive markets, principal-agent problems, strategic and informational incentive constraints, incentive efficiency, and mechanism design for auctions and bilateral trading.

Instructor(s): Roger Myerson, Phil Reny Terms Offered: Spring

ECON 30400. Introduction to Mathematical Methods In Economics. 000 Units.

This optional three-week course for incoming graduate students meets in early September and introduces some basic mathematical concepts used in economic theory: a "briefing" of the math students will encounter in the Core classes. Emphasis is placed on problem-solving, but also on some fairly abstract math you might not see otherwise. Cooperative work is strongly encouraged.

Instructor(s): Staff Terms Offered: Summer

Prerequisite(s): Econ PhD students only

ECON 30502. Topics in Theoretical Economics II. 100 Units.

Part of sequence of Mathematical Methods fields sequence.

Instructor(s): B. Brooks Terms Offered: Spring

ECON 30510. Topics in Repeated Games. 100 Units.

This course will cover a range of topics in the theory of repeated games, with an emphasis on those areas of research that are currently active. The material covered will include recursive methods in discrete and continuous time, public monitoring, stochastic games, folk theorems, bargaining, reputation, and computational methods. The primary text for the course will be Mailath and Samuelson's "Repeated games and reputations."

Instructor(s): B. Brooks Terms Offered: Winter

ECON 30520. Models of Choice and Attention. 100 Units.

The course will introduce the students to the models and methodology of studying choice within economic theory, with a focus on models of choice with limited attention. The course will begin by introducing students to the classical theoretical choice frameworks and issues by going over seminal models such as random utility, subjective expected utility, max-min EU, preferences for flexibility & self control, etc. We will then turn to studying how these frameworks and tools are used to characterize models of limited attention, such as rational inattention, random and deterministic consider sets, and revealed reference points. Course grade will be based on class participation, referee reports and student presentations.

Instructor(s): Ravid, Doron Terms Offered: Autumn

ECON 30580. Irrational Inattention. 100 Units.

This is a topics course in Behavioral Economics.

Instructor(s): D. Ravid Terms Offered: Spring

ECON 30600. The Economics of Information. 100 Units.

Course Search

Equivalent Course(s): BUSN 33911

ECON 30680. Topics Information Economics. 100 Units.

Equivalent Course(s): BUSN 33914

ECON 30720. Dynamic Games. 100 Units.

This course will study both classic and recent work in repeated and dynamic games. Some topics will include: repeated games with imperfect monitoring, reputation building and reputation dynamics, relational contracts, and optimal contracting in continuous time.

Instructor(s): E. Lipnowski Terms Offered: Winter

ECON 31000. Empirical Analysis I. 100 Units.

This course introduces students to the key tools of econometric analysis. It covers basic OLS regression model, generalized least squares, asymptotic theory and hypothesis testing for maximum likelihood estimation, extremum estimators, instrumental variables, decision theory and Bayesian inference.

Instructor(s): Azeem Shaikh Terms Offered: Autumn

ECON 31100. Empirical Analysis II. 100 Units.

This course develops methods of analyzing Markov specifications of dynamic economic models. Models with stochastic growth are accommodated and their properties analyzed. Methods for identifying macroeconomic shocks and their transmission mechanisms are developed. Related filtering methods for models with hidden states are studied. The properties estimation and inference methods based on maximum likelihood and generalized method of moments are derived. These econometric methods are applied to models from macroeconomics and financial economics.

Terms Offered: Winter

ECON 31200. Empirical Analysis III. 100 Units.

The course will review some of the classical methods you were introduced to in previous quarters and give examples of their use in applied microeconomic research. Our focus will be on exploring and understanding data sets, evaluating predictions of economic models, and identifying and estimating the parameters of economic models. The methods we will build on include regression techniques, maximum likelihood, method of moments estimators, as well as some non-parametric methods. Lectures and homework assignments will seek to build proficiency in the correct application of these methods to economic research questions.

Instructor(s): Stephané Bonhomme Terms Offered: Spring

ECON 31703. Topics in Econometrics. 100 Units.

Graduate course covering recent research on the field of econometrics.

Instructor(s): Bonhomme, Stephane Terms Offered: Spring

ECON 31720. Applied Microeconometrics. 100 Units.

This course is about empirical strategies that are commonly used in applied microeconomics. The topics will include: control variables (matching), instrumental variables, regression discontinuity and kink designs, panel data, difference-in-differences, and quantile regression. The emphasis of the course is on identification and practical implementation. The course also covers the shortcomings of commonly used tools, and discusses recent theoretical research aimed at addressing these deficiencies.

Instructor(s): Torgovitsky, Alex Terms Offered: Autumn

ECON 31740. Optimization-Conscious Econometrics. 100 Units.

Modern research in econometrics often intersects with machine learning and big data questions. Likewise, while the overlap of econometrics with optimization and operations research has traditionally been limited, previously intractable large scale or combinatorially difficult econometrics problems are now being solved using modern optimization software and heuristics. This lays out a rich research agenda and opens up consequential new questions for econometricians. How can machine learning methods be used for econometric regression analysis and causal inference? How can modern optimization methods be applied to solve previously intractable econometric problems? What are the statistical consequences of changes made for numerical reasons? How does one do inference on the output of nonstandard optimization problems? At the heart of these new estimation and inference questions lies the need to design and understand estimators as the product of algorithms and optimization problem, not only the minimand and of objective functions.

Instructor(s): G. Pouliot Terms Offered: Winter

Equivalent Course(s): PPHA 48403

ECON 31800. Advanced Econometrics. 100 Units.

Equivalent Course(s): BUSN 41911

ECON 31830. The Econometrics Spillover Effects. 100 Units.**ECON 32000. Topics in American Economic History. 100 Units.**

Economic analysis is applied to important issues in American economic history. Specific topics vary, but may include the following: the economics of colonization, the transatlantic slave trade, the role of indentured servitude and slavery in the colonial labor market, the record and sources of 19th-century economic growth, economic causes and effects of 19th-century immigration, the expansion of education, the economics of westward migration, determinants of long-run trends in the distribution of income and wealth, the quantitative analysis of economic and social mobility, and the economics of racial discrimination in the twentieth-century South.

Instructor(s): D. Galenson Terms Offered: Autumn

Prerequisite(s): ECON 20100

Equivalent Course(s): ECON 22200

ECON 33000. Theory of Income I. 100 Units.

This course will use dynamic general equilibrium models to study macroeconomic questions. The first half of the quarter will focus on applications of the neoclassical growth model, including variants useful for studying the effects of capital, labor, and consumption taxes; the effects of general and investment specific technical change; the role of human capital accumulation, and the q-model of investment. On the technical side, this part of the course will rely heavily on the tools of optimal control theory (Hamiltonians) and on the First and Second welfare theorems. The second part of the course will focus on applications of stochastic dynamic programming. On the substantive side, particular topics include models of job search and asset pricing; models with idiosyncratic (insurable) and aggregate (uninsurable) risk; and dynamic tax smoothing. On the technical side, this part of the course will rely heavily on Bellman equations and other recursive modeling techniques.

Instructor(s): Fernando Alvarez Terms Offered: Autumn

ECON 33100. The Theory of Income II. 100 Units.

This course will explore a variety of macroeconomic models in which the welfare theorems do not necessarily hold, including overlapping generations models, equilibrium models with labor market search and matching frictions, economies with sticky prices and sticky wages, and environments in which money facilitates exchange. We will also explore the role of government policy within these models, including optimal taxation, optimal monetary policy, and the time consistency of these policies. If time permits, we will look at environments with non-convex adjustment costs, such as irreversible investment and fixed costs of changing prices.

Instructor(s): Nancy Stokey Terms Offered: Winter

ECON 33200. The Theory of Income III. 100 Units.

The course shares with the other two Theory of Income courses the objectives of (1) explaining human behavior as evidenced by aggregate variables and (2) predicting the aggregate effects of certain government policies.

Economics 33200 considers some of the prevailing business cycle theories, and their application to the recession of 2008-9. Some hypotheses to be considered are the q-theory of housing investment, the neoclassical approach to fiscal policy, and whether government spending has a "multiplier." The course confronts several empirical issues that are also encountered outside the field of macroeconomics such as the construction of aggregate data, choice of data set, and the measurement of expectations.

Instructor(s): Robert Shimer Terms Offered: Spring

ECON 33502. Monetary Economics I. 100 Units.

Current research topics in monetary economics will be explored.

Instructor(s): F. Alvarez Terms Offered: Autumn

ECON 33530. Firm Dynamics and Economic Growth. 100 Units.

This class focuses on the theory and empirics of economic growth. The class will follow a micro-to-macro approach and hence special emphasis will be given to firms and inventors to uncover the determinants of aggregate productivity growth. In addition to some classic papers, the class will mainly focus on recent research. Students will be encouraged to discuss the frontier topics in class and produce new and exciting research ideas.

Instructor(s): U. Akcigit Terms Offered: Winter

ECON 33703. Financial Markets in the Macroeconomy. 100 Units.

Course Search

Equivalent Course(s): BUSN 33948

ECON 33820. Advanced Macro Reading Group. 100 Units.**ECON 34400. Job Mobility/Wage Determinants. 100 Units.**

This course is divided into four parts: Part I reviews segments of the literature on wage growth and labor mobility. The course begins by reviewing a standard model of life-cycle human capital accumulation. We then introduce models of learning and sorting. The goal is to understand how investments in both information and human capital generate observed patterns of wage growth and mobility decisions over the life-cycle. Part II examines the literature on investment in schooling. We will review work on measuring the returns to schooling and assessing the evidence that credit constraints affect human capital investment decisions. We will discuss the role of human capital investment in determining earnings inequality. Part III examines the design of incentive systems within organizations. We will give particular attention to trade-offs between insurance and incentives, tournament theory, moral hazard in teams, and models of multi-tasking. These models also provide insight concerning sources of wage growth within firms and the distribution of wages within firms. Part IV examines the theoretical and empirical literature on income inequality by race and gender. We will also examine how the increase in female labor supply during the past four decades has influenced the wage structure. We devote considerable attention to the effects of public policy on observed racial income gaps.

ECON 34402. Determinants of the Distribution of Labor Earnings. 100 Units.**ECON 34430. Topics in Labor Markets: Earnings and Employment. 100 Units.**

The class will cover recent developments in the understanding of the determinants of employment and earnings in the labor market. We will start by studying extensive and intensive labor supply decisions in the short and long run and their implications for macro and micro elasticities. We will then look at the effect of uncertainty in earnings by studying the joint dynamics of earnings and consumption. The next section is concerned with labor demand and in particular how skills demand has impacted inequality. Finally, the course will cover models with two-sided heterogeneity with complementarities, sorting and mobility frictions. The methods presented in the course will range from nonparametric econometrics methods to solving equilibrium and dynamic contracting problems. Students should expect to learn how to work with data and how to develop, solve and evaluate structural models of the labor market.

Instructor(s): T. Lamadon Terms Offered: Autumn

ECON 34602. Household Decisions and Labor Markets. 100 Units.

This course focuses on household decision making in labor economics. We will examine unitary, cooperative and non-cooperative models of the household, and especially the collective model and dynamic extensions of the collective model with frictions. We will then discuss empirical applications of these models to labor supply, retirement behavior, human capital accumulation, the division of labor within the family and migration decisions.

Instructor(s): Voena, Alessandra Terms Offered: Spring

ECON 34610. Household Decisions and Markets. 100 Units.

This labor course will focus on markets and household decision making.

Instructor(s): A. Voena Terms Offered: Spring

ECON 34701. Labor Market Dynamics. 100 Units.**ECON 34930. Inequality: Theory, Methods and Evidence. 100 Units.**

This course will explore the theory, methodology and evidence of economic inequality.

Terms Offered: Spring

Equivalent Course(s): PPHA 33230

ECON 35003. Human Capital, Markets, and the Family. 100 Units.

Graduate course focusing on recent economic literature relating to human capital, markets and family economics.

Instructor(s): Heckman, James Terms Offered: Winter

ECON 35050. Asset Pricing I. 100 Units.

Equivalent Course(s): BUSN 34901

ECON 35060. Asset Pricing II. 100 Units.

Equivalent Course(s): BUSN 34902

ECON 35070. Corporate Finance I. 100 Units.

Equivalent Course(s): BUSN 34903

ECON 35080. Corporate Finance II. 100 Units.

Equivalent Course(s): BUSN 34904

ECON 35101. International Macroeconomics and Trade. 100 Units.

Course Search

Equivalent Course(s): BUSN 33946

ECON 35310. Topics in International Trade and Growth. 100 Units.**ECON 35340. Macroeconomics and Financial Frictions. 100 Units.**

This course looks into the relationship between prices and allocations of risks on financial markets versus macroeconomic choices and allocations.

ECON 35501. International Macroeconomics and Finance. 100 Units.

Course Search

Equivalent Course(s): BUSN 35915

ECON 35520. Development Economics: Microeconomic Issues. 100 Units.

This course will study the recent work in microeconomics as it relates to Development Economics.

ECON 35570. Political Economy of Development. 100 Units.

This course is intended as an introduction for Ph.D. students to the research literature in the political economy of development. Its purpose is to give students both a sense of the frontier research topics and a good command of how social science methodological tools are used in the area.

Instructor(s): Blattman, C; Robinson, J Terms Offered: Spring

Equivalent Course(s): PPHA 41120, PLSC 46600

ECON 36000. Public Finance I. 100 Units.

This Ph.D.-level course provides the conceptual and theoretical foundations of public finance by dealing with a large number of concepts, models, and techniques that are used in the research on public finance. A command of the positive analysis of the incidence of government policies is fundamental to the study of most problems of public finance; positive analysis is emphasized throughout the course. Among the topics are: measurements of changes in welfare; economy-wide incidence of taxes; effects of taxation on risk-taking, investments, and financial markets; corporate taxation; taxation of goods and services; taxation of income; taxation and savings; positive problems of redistribution; and tax arbitrage, tax avoidance, tax evasion, and the underground economy. Prerequisite(s): Open to Ph.D. students; other students may enroll with consent of the instructor.

Equivalent Course(s): PPHA 42500

ECON 36010. Public Finance. 100 Units.

Review of recent research in Public Finance

Instructor(s): M. Golosov Terms Offered: Autumn

ECON 36201. Public Sector Economics. 100 Units.**ECON 36320. Advanced Price Theory. 100 Units.****ECON 36330. New Developments in Public Finance. 100 Units.**

Course Search

Equivalent Course(s): BUSN 35916

ECON 36730. Energy and Environmental Economics I. 100 Units.

This course will emphasize the economics of natural resource production and problems associated with externalities and common property, with a focus on the energy sector. Most lectures will be theoretical in nature, but we will spend considerable time studying applications that have an empirical component. The course has several complementary objectives: (1) provide a solid foundation in concepts like Hotelling's Rule and Pigouvian taxation that are a prerequisite for understanding modern environmental and resource economics; (2) develop proficiency with theoretical, computational, and empirical tools that will be valuable for future self-directed research; and (3) gain experience in reading, presenting, and discussing modern research in energy and environmental economics.

Equivalent Course(s): PPHA 44320

ECON 36740. Environmental and Energy Economics II. 100 Units.

Graduate field sequence course focusing on energy and environmental economics.

Instructor(s): Kellogg, K Terms Offered: Winter

Equivalent Course(s): PPHA 44330

ECON 36750. Energy and Environmental Economics III. 100 Units.

Optimal environmental regulation requires an analysis of the trade-offs between market and regulatory imperfections. Market allocations are inefficient in the presence of imperfections such as externalities, market power, and informational asymmetries. On the other hand, government intervention to mitigate these imperfections is not costless, and can even make market performance worse. This course focuses on recent empirical analysis of the costs and benefits of environmental and energy policies, including an introduction to the relevant econometric methodologies such as randomized controlled trials, regression discontinuity designs, bunching analysis, and structural estimation. Topics will include: energy demand and the energy efficiency gap, fuel economy and appliance efficiency standards, non-linear and real-time electricity pricing, wholesale electricity markets, renewable electricity policies, natural gas markets, retail gasoline markets, and technology innovations.

Instructor(s): Ito, K Terms Offered: Spring

Equivalent Course(s): PPHA 44340

ECON 36770. Economics of Education. 100 Units.

Graduate level economics course relating to the economics of education markets.
Instructor(s): Dinerstein, Michael Terms Offered: Spring

ECON 36820. Empirical Topics in Social Insurance. 100 Units.

Graduate course focusing on recent empirical economic literature in social insurance.
Instructor(s): Deshpande, Manasi Terms Offered: Spring

ECON 37200. Analysis of Microeconomic Data -1. 100 Units.

This course provides a theoretical analysis of linear regression models for applied researchers. Econometric topics include partial regression, the Gauss-Markov Theorem, estimation, and hypothesis testing. Alternative estimators and testing procedures are developed to deal with departures from the Gauss-Markov assumptions such as heteroskedasticity, panel data, endogenous regressors, and binary dependent variables. The course assumes familiarity with matrix algebra and mathematical statistics.
Equivalent Course(s): PPHA 48200

ECON 37400. Analysis of Microeconomic Data 3. 100 Units.

Equivalent Course(s): PPHA 48400

ECON 37601. Topics in Economic Growth. 100 Units.

This course will examine models of economic growth, looking at both advanced and developing economies. For advanced economies the focus will be on models of human capital accumulation, diffusion of ideas, and innovation. For developing economies, we will look at explanations of cross-country differences in productivity levels and growth rates, the role of technology diffusion, and the role of structural transformation. Both theoretical and empirical papers will be included, although with emphasis on the former.
Instructor(s): Nancy Stokey Terms Offered: Autumn

ECON 38001. Applied Macroeconomics: Micro Data for Macro Models. 100 Units.

Course Search

Equivalent Course(s): BUSN 33942

ECON 38102. Applied Macroeconomics: Heterogeneity and Macro. 100 Units.

Course Search

Equivalent Course(s): BUSN 33949

ECON 38301. Applied Macroeconomics II. 100 Units.

This course consists of two components. There are five weeks of lectures on stochastic dynamic equilibrium models with financial market linkages. The impact of financing frictions on the macroeconomic transmission mechanism and on the asset markets will be considered. Also the impact of uncertainty is analyzed through the lens of recent literatures on ambiguity aversion and concerns for robustness. The class explores emerging literatures designed to confront empirical challenges and quantitative predictions. For the second part of the class students are required to attend lectures by outside scholars: Violante, Piazzessi, Primiceri and Bloom on a variety of important topics in macroeconomics. Each will give one lecture to a broad audience of graduate students and some faculty. Students are asked to write short essays (say referee reports) on two papers that are prominently referenced in these lectures.

Equivalent Course(s): BUSN 33947

ECON 39001. Theory of Financial Decisions II. 100 Units.

Course Search

Equivalent Course(s): BUSN 35902

ECON 39100. Asset Pricing. 100 Units.

View complete Booth Course Descriptions here [View standard Booth Exam Schedule here](#) (refer to individual syllabi for complete details) Booth Book Fee may be assessed.

Equivalent Course(s): BUSN 35904

ECON 39101. Asset Pricing. 100 Units.

Course Search

Equivalent Course(s): BUSN 35912

ECON 39200. Topics in Empirical Finance. 100 Units.

Course Search

Equivalent Course(s): BUSN 35905

ECON 39400. Theory of Financial Decisions III. 100 Units.

Course Search

Equivalent Course(s): BUSN 35903

ECON 39600. Topics in Asset Pricing. 100 Units.

Course Search

Equivalent Course(s): BUSN 35907

ECON 39650. Asset Pricing: Topical Review. 100 Units.

A review of recent research in Asset Pricing
 Instructor(s): C. Mulligan Terms Offered: Autumn

ECON 39701. Advanced Theory of Corporate Finance and Capital Markets. 100 Units.

Course Search
 Equivalent Course(s): BUSN 35913

ECON 39820. Corporate Governance. 75-100 Units.

Through the production of goods and services, innovation, employment and occasional misbehavior, publicly-held corporations in the U.S. exert an enormous impact on the lives of individuals and the economy in general. How (and how well) corporations are governed greatly influences what that impact will be. Since the early 1990s, there has been a significant increase in the attention given to corporate governance by investors, lawyers, academicians, politicians and the press. This seminar will provide students with a deep understanding of applicable legal, regulatory and market influences on corporate governance, an appreciation for the historical development of the current system of governance and insights into current "hot" issues and the continuing evolution of governance. We will discuss critical issues such as for whose benefit is a corporation to be governed and what is the proper balance of decision-making authority between owners and managers. There will be a heavy emphasis on the role of counsel to the enterprise as a whole and on the practical aspects of advising officers and directors, including the coordination of multi-disciplinary teams.

Equivalent Course(s): PPHA 33650

ECON 40101. Advanced Industrial Organization I. 100 Units.

Course Search
 Equivalent Course(s): BUSN 33921

ECON 40104. Advanced Industrial Organization IV. 100 Units.**ECON 40201. Advanced Industrial Organization II. 100 Units.**

Course Search
 Equivalent Course(s): BUSN 33922

ECON 40301. Advanced Industrial Organization III. 100 Units.

Course Search
 Equivalent Course(s): BUSN 33923

ECON 40603. Market Design. 100 Units.

, Course Search
 Equivalent Course(s): BUSN 33915

ECON 40603. Market Design. 100 Units.

, Course Search
 Equivalent Course(s): BUSN 33915

ECON 40902. Advanced Quantitative Marketing. 100 Units.

Course Search
 Equivalent Course(s): BUSN 37904

ECON 41001. Behavioral Economics. 100 Units.

Course Search
 Equivalent Course(s): BUSN 38912

ECON 41100. Experimental Economics. 100 Units.

This course provides the necessary tools to be an avid consumer of the experimental literature and instructs students on how to become a producer of that literature. Topics include a summary of recent experimental findings and details on how to gather and analyze data using experimental methods.

Instructor(s): L. Bursztyn Terms Offered: Winter

Prerequisite(s): ECON 20100 and ECON 21020 (or ECON 21030); OR ECON 10000 for declared business economics specialization. No first-year students.

Equivalent Course(s): ECON 21800

ECON 41120. Topics in Behavioral Economics. 100 Units.

This class covers recent work in behavioral economics. Topics include social influence and social pressure, the role of identity in economics, the psychology of poverty, and social preferences. Applications will cover a wide range of fields, including labor economics, finance, political economy, and development economics.

Equivalent Course(s): BUSN 38915

ECON 41150. Behavioral Finance. 100 Units.

Course Search
 Equivalent Course(s): BUSN 35906

ECON 41200. Topics in Behavioral Economics. 100 Units.

This course looks into recent work done in the field of behavioral economics.

ECON 41220. Behavioral Economics: Theory and Applications. 100 Units.

Contemporary theoretical and applied topics in behavioral economics will be explored.

Instructor(s): L. Burzstyn; N. Thakral Terms Offered: Spring

ECON 41800. Numerical Methods in Economics. 100 Units.

This course introduces a broad range of numerical methods, and shows how to use them to compute equilibrium in competitive and game theoretic models and compute econometric estimators. Applications will include solution of dynamic stochastic general equilibrium models, life-cycle dynamic programming problems, optimal taxation, nonlinear pricing, Nash equilibrium of dynamic games, and estimation of structural models. We will also introduce students to advanced computational tools, such as cluster computing and supercomputing; in particular, students will get accounts on supercomputers.

Equivalent Course(s): BUSN 33902

ECON 41901. Longitudinal Data Analysis I. 100 Units.

This course acquaints students with the basic tools for analyzing panel and longitudinal data on individual event histories and life cycle trajectories. Students will become acquainted with the wealth of panel and longitudinal data, the basic methods for analyzing these data, and relevant analysis program and software tools. The topics covered include: basic demographic analysis; single state and multi-state duration analysis for discrete time and continuous time models; issues of sampling frames; panel data econometric methods (random effects and fixed effects and their generalizations for general forms of heterogeneity); the Å, Å analysis of treatment effects and Å, Å econometric policy evaluation including propensity score matching and new extensions; and dynamic discrete choice. Methods for computation and hands-on experience will be stressed. Credit for the course will be based on empirical projects. The pace of coverage will be dictated by student interest and research questions. The course will operate as a weekly seminar with lectures and interaction.

Equivalent Course(s): PPHA 45400

ECON 42800. Creativity. 100 Units.

This seminar examines recent research on how creative people innovate in a wide range of intellectual activities. The main project for the course is a term paper that analyzes the creative life cycle of one or more innovators of the student's choice, using both quantitative and qualitative evidence. Students present their research in progress for discussion. The seminar is designed to give students all the tools needed to do this research, including choosing a subject, finding and using an appropriate data set, and negotiating the relevant scholarship.

Instructor(s): D. Galenson Terms Offered: Winter

Prerequisite(s): ECON 20100

Equivalent Course(s): ECON 22650

ECON 42900. Innovators. 100 Units.

Economists believe that innovation is a primary source of economic growth. Yet although most innovations are made by individuals or small groups, until recently economists have not studied how those exceptional people produce their discoveries. Recent research has shown that there are two very different types of innovators, who have different goals and follow different processes. This course surveys this research, examining the careers and innovations of important practitioners in a range of modern arts, including painters, novelists, sculptors, poets, movie directors, photographers, songwriters, and architects, as well as entrepreneurs and scientists. The material covered in this course adds a new dimension to our understanding of creativity and of how innovators in many different activities produce new forms of art and science.

Instructor(s): D. Galenson Terms Offered: Autumn

Prerequisite(s): ECON 20100

Equivalent Course(s): ECON 22600

ECON 49700. Research Seminar. 100 Units.

The Required Research Seminar/Paper is designed to introduce the Ph.D. student to the demands and excitement of research, promote early contact with the faculty, and introduce the process of selecting a research topic and writing about it. (The thesis itself comes later and may be on a different topic.) Every student is required to write a research paper under faculty supervision by taking the Required Research Seminar.

Equivalent Course(s): BUSN 35930

ECON 49800. Research Seminar. 100 Units.

Course Search

Equivalent Course(s): BUSN 35931

ECON 49900. Required Research Paper. 100 Units.

The Required Research Seminar/Paper is designed to introduce the Ph.D. student to the demands and excitement of research, promote early contact with the faculty, and introduce the process of selecting a research topic and writing about it. (The thesis itself comes later and may be on a different topic.) Every student is required to write a research paper under faculty supervision by taking the Required Research Seminar.

Equivalent Course(s): BUSN 35932

ECON 50000. Workshop in Economic Theory. 100 Units.

Faculty led workshop presenting current research in economic theory.

Instructor(s): Reny, Philip Myerson, Roger Sonnenschein, Hugo Terms Offered: Autumn, Spring, Winter

ECON 50300. Becker Applied Economics Workshop. 100 Units.

Faculty led workshop presenting current research in applied economics.

Instructor(s): List, John Greenstone, Michael Mogtsad, Magne Terms Offered: Autumn, Spring, Winter

ECON 51200. Workshop: Econometrics. 100 Units.

Faculty led workshop presenting current research in econometrics.

Instructor(s): Heckman, James Hansen, Lars Peter Hickman, Brent Shaikh, Azeem Terms Offered:

Autumn, Spring, Winter

ECON 51400. Econometrics and Statistics Colloquium. 100 Units.

Course Search

Equivalent Course(s): BUSN 41600

ECON 53000. Workshop: Money and Banking. 100 Units.

Faculty led workshop presenting current research in Money and Banking.

Instructor(s): Alvarez, Fernando Shimer, Robert Hansen, Lars Peter Lucas, Robert E. Stokey, Nancy Terms

Offered: Autumn, Spring, Winter

ECON 54300. Applied Economics Workshop. 100 Units.

Course Search

Equivalent Course(s): BUSN 33610

ECON 55600. Seminar: Finance. 100 Units.

Course Search

Equivalent Course(s): BUSN 35600

ECON 56100. Workshop: Political Economy. 100 Units.

This is a workshop; Only open to PhD students and is an audit only course.

Terms Offered: Autumn Spring Winter

Equivalent Course(s): PLSC 55300, PPHA 56100

ECON 56300. Public Policy and Economics Workshop. 100 Units.

This is a workshop; Only open to PhD students and is an audit only course

Equivalent Course(s): PPHA 51500

ECON 57000. Workshop in Macro and International Economics. 100 Units.

Course Search

Equivalent Course(s): BUSN 33650

ECON 58700. Workshop in Family Economics. 100 Units.

Faculty led workshop presenting current research in family economics.

Instructor(s): Voena, Alessandra Heckman, James Mogstad, Magne Lamadon, Thibaut Terms Offered:

Autumn, Spring, Winter

ECON 58900. Workshop: Demography. 100 Units.

This workshop is sponsored by the Committee on Demographic Training in collaboration with the Population Research Center of NORC and the University. Visitors from other campuses as well as Chicago faculty discuss

current research activities in population studies. PQ: Must Register for an R

Equivalent Course(s): SOCI 60001

ECON 59000. Workshop: Applications of Economics. 100 Units.

Faculty led workshop presenting current research in economics applications.

Instructor(s): Hortacsu, Ali Voena, Alessandra Hickman, Brent Philipson, Tomas Akcigit, Ufuk Terms Offered:

Autumn, Spring, Winter

ECON 59200. Workshop: Economic Policy/Public Finance. 100 Units.**ECON 59900. Thesis Preparation: Economics. 100 Units.**

This course is designed for advanced thesis preparation work sponsored by a faculty member.

Instructor(s): Ufuk Akcigit Fernando Alvarez Stéphane Bonhomme Benjamin Brooks Leo Bursztyn Manasi Deshpande Michael Dinerstein David Galenson Michael Greenstone Lars Hansen Jim Heckman Brent Hickman Ali Hortacsu Greg Kaplan Thibaut Lamadon Steve Levitt John List Magne Mogstad Casey Mulligan Kevin Murphy Roger Myerson Derek Neal Doron Ravid Phil Reny Larry Schmidt Azeem Shaikh Rob Shimer Nancy Stokey Pietro Tibaldi Felix Tintelnot Harlad Uhlig Richard van Weelden Alessandra Voena Bob Lucas Hugo Sonnenschein Terms Offered: Autumn, Spring, Summer, Winter

ECON 60200. Working Group: Applied Micro. 100 Units.

Faculty and graduate student led working group presenting graduate student research in applied microeconomics.

Instructor(s): Mogstad, Magne Dinerstein, Michael Voena, Alessandra Levitt, Steve Greenstone, Michael Terms

Offered: Autumn, Spring, Winter

ECON 60250. Student Applied Micro Working Group. 100 Units.

Graduate student led working group presenting graduate student research in applied microeconomics.
Instructor(s): Steve Levitt Terms Offered: Autumn, Spring, Winter

ECON 60300. Working Group: Economic Dynamics. 100 Units.**ECON 60310. Economics Dynamics. 100 Units.**

Faculty and graduate student led working group presenting current research in economic dynamics.
Instructor(s): Hansen, Lars Peter Alvarez, Fernando Terms Offered: Autumn, Spring, Winter

ECON 60400. Working Group: Economic Theory. 100 Units.

Faculty and graduate student led working group presenting graduate student research in economic theory.
Instructor(s): Sonnenschein, Hugo Myerson, Roger Reny, Phil Van Weelden, Richard Terms Offered:
Autumn, Spring, Winter

ECON 60600. Working Group: Capital Theory. 100 Units.

Faculty and graduate student led working group presenting graduate student research in capital theory economics.
Instructor(s): Stokey, Nancy Alvarez, Fernando Shimer, Robert Terms Offered: Autumn, Spring, Winter

ECON 60700. Working Group: International Development. 100 Units.**ECON 60900. Working Group: Applied Macroeconomic Theory. 100 Units.**

Faculty and graduate student led working group presenting graduate student research in macroeconomic theory.
Instructor(s): Alvarez, Fernando Terms Offered: Autumn, Spring, Winter

ECON 61000. Working Group: Demography Workshop Post-Mortem. 100 Units.

The Post-Mortem Seminar meets immediately following the Demography Workshop each week. The 30 minute discussion occurs immediately after the workshop, offering attendees opportunities to explore the theoretical claims, methods, and findings presented at the Demography Workshop, as well as to consider ethical issues embodied in the presented research and how we can engage in the responsible conduct of research. The PM seminar is led by faculty members and postdoctoral fellows with expertise in the demography and economics of aging, providing attendees with opportunities for intellectual engagement with area experts in a casual discussion-based setting.

Equivalent Course(s): SOCI 60015

ECON 61100. Industrial Organization Working Group. 100 Units.

Faculty and graduate student led working group presenting graduate student research in industrial organization.
Terms Offered: Autumn, Spring, Winter

ECON 61300. EPIC Working Group. 100 Units.

Faculty and graduate student led working group presenting current research in energy and environmental economics.

Instructor(s): Greenstone, Michael Terms Offered: Autumn, Spring, Winter

ECON 61400. Working Group in Econometrics. 100 Units.

Faculty and graduate student led working group presenting graduate student research in econometrics.

Instructor(s): Shaikh, Azeem Terms Offered: Autumn, Spring, Winter

ECON 61500. Trade Working Group. 100 Units.

Faculty and graduate student led working group presenting graduate student research in trade economics.

Instructor(s): Tintelnot, Felix Dingel, Jonathan Terms Offered: Autumn, Spring, Winter

ECON 61810. Macrofinance, Financial Intermediation and Banking Working Group. 100 Units.

Faculty and graduate student led working group presenting graduate student research in economic theory.

Instructor(s): H. Uhlig Terms Offered: Autumn Spring Winter

Prerequisite(s): Consent of instructor

ECON 63100. Macro Reading Group. 100 Units.

This is a "Sargent-style" reading group for PhD students in their third year or above with an interest in macroeconomics, very broadly defined. Students are required to read a paper of their choice every week, attend a 1.5 hr meeting each week and give regular presentations of various forms and lengths. Active and regular participation is compulsory.

Instructor(s): Greg Kaplan Terms Offered: Autumn, Spring, Winter

ECON 63500. Job Placement Working Group. 000 Units.**ECON 70000. Advanced Study: Economics. 300.00 Units.**

Advanced Study: Economics



COMMITTEE ON GEOGRAPHICAL INFORMATION SCIENCE

Faculty

- Luc Anselin, Sociology (Chair)
- Luis Bettencourt, Ecology and Evolution
- Marc Berman, Psychology
- Kathleen Cagney, Sociology
- Michael Conzen
- Terry Clark, Sociology
- Sabrina Shaikh, Environmental and Urban Studies
- Xi Song, Sociology
- Emily Talen, Social Sciences
- Robert Vargas, Sociology

Lecturers

- Kevin Credit
- Marynia Kolak

The Committee on Geographical Sciences pursues a geospatial perspective on fundamental issues in the urban, environmental, and social sciences. The main area of interest is the interaction between physical/natural environments, built environments, and people, utilizing a geospatial perspective and methodology to explore issues that impact neighborhoods, cities, regions, and global communities. Example topics include: cultural landscapes and morphological agency, the social justice of urban design, the impact of climate change on urban sustainability, and the geo-visualization of economic disparities. Our faculty pursue research that is spatial, place-based, and policy-oriented.

The Committee on Geographical Sciences supports course work and research opportunities for graduate students in the University. Students from degree programs in different divisions can work with members of the committee for specialized training. The Committee also supports the Concentration in Geographic Information Science in the Master of Arts Program in Social Sciences (MAPSS) (<https://geography.uchicago.edu/content/new-mapss-geographic-information-science-concentration>).

Considerable resources to support research in geographical sciences and spatial analysis exist both at the University and in the Chicago area. The Regenstein Library contains a considerable map collection, a unique repository of geography monographs and many specialized holdings. The Newberry Library in downtown Chicago is home to the Hermon Dunlap Smith Center for the History of Cartography which is the home of a world class collection of antique and historical maps.

In addition, several research centers at the University focus on topics germane to geographical sciences, urban studies and spatial analysis.

The Center for Spatial Data Science (<https://spatial.uchicago.edu>) develops state of the art methods for geospatial analysis, spatial econometrics, and geo-visualization; implements them through open source software tools; applies them to policy-relevant research in the social sciences; and disseminates them through training and support. It is the home of the GeoDa software for spatial analysis, which has close to 250,000 users world-wide.

The Population Research Center (<https://voices.uchicago.edu/popcenter/>) focuses on research on human and social capital in an urban context. This urban emphasis is rooted in the emerging significance of global trends in urbanization, and the ongoing and pressing concerns regarding urban populations in the U.S. With this focus, the tools of demography and theoretical precepts of human and social capital can be brought to urban studies.

The Violence, Law, and Politics Lab (<https://vlplab.com/>) studies how local, national, and global politics affect the geography and prevalence of violence in cities and neighborhoods. The lab is interdisciplinary and multi-method and currently focuses on whether violence in American cities can be reduced via increased government accountability, transparency, and the provision of humanitarian or economic assistance.

The Environmental Neuroscience Lab (<http://enl.uchicago.edu>) researches how the physical environment affects the brain and behavior. Specifically, it focuses on how physical low-level features of nature (such as color and spatial properties) relate to improvements in global brain network connectivity. The lab aims to gain a better understanding and quantification of the relationships between the brain and the environment in order to influence to design of physical environments in ways that will optimize human mental and physical health.

The University of Chicago Research Computing Center (RCC) provides specialized support for Geographic Information Sciences (<https://gis.rcc.uchicago.edu/>) (<https://gis.rcc.uchicago.edu/>). RCC-GIS supports users

who want to incorporate GIS methods and software as well as a range of spatial analysis tools. It offers services related to cartography, data mining and transformation, spatial statistics, and software solutions. RCC-GIS also offers a range of specialized workshops and bootcamp courses on GIS and spatial analysis software and methods.

More information about the Committee on Geographical Sciences can be found at <https://geography.uchicago.edu>.

GEOGRAPHICAL STUDIES COURSES

GEOG 30116. Global-Local Politics. 100 Units.

Globalizing and local forces are generating a new politics in the United States and around the world. This course explores this new politics by mapping its emerging elements: the rise of social issues, ethno-religious and regional attachments, environmentalism, gender and life-style identity issues, new social movements, transformed political parties and organized groups, and new efforts to mobilize individual citizens.

Instructor(s): T. Clark Terms Offered: Winter

Equivalent Course(s): HMRT 20116, GEOG 20116, SOCI 20116, HMRT 30116, SOCI 30116, PBPL 27900, LLSO 20116

GEOG 30120. Urban Policy Analysis. 100 Units.

This course addresses the explanations available for varying patterns of policies that cities provide in terms of expenditures and service delivery. Topics include theoretical approaches and policy options, migration as a policy option, group theory, citizen preference theory, incrementalism, economic base influences, and an integrated model. Also examined are the New York fiscal crisis and taxpayer revolts, measuring citizen preferences, service delivery, and productivity.

Instructor(s): T. Clark Terms Offered: Autumn

Equivalent Course(s): SOCI 30120, SOCI 20120, GEOG 20120, PBPL 24800

GEOG 30500. Introduction to Spatial Data Science. 100 Units.

Spatial data science consists of a collection of concepts and methods drawn from both statistics and computer science that deal with accessing, manipulating, visualizing, exploring and reasoning about geographical data. The course introduces the types of spatial data relevant in social science inquiry and reviews a range of methods to explore these data. Topics covered include formal spatial data structures, geovisualization and visual analytics, rate smoothing, spatial autocorrelation, cluster detection and spatial data mining. An important aspect of the course is to learn and apply open source software tools, including R and GeoDa.

Instructor(s): L. Anselin and M. Kolak Terms Offered: Autumn

Prerequisite(s): STAT 22000 (or equivalent), familiarity with GIS is helpful, but not necessary

Equivalent Course(s): SOCI 20253, MACS 54000, ENST 20510, SOCI 30253, GEOG 20500

GEOG 31900. Historical Geography of the United States. 100 Units.

This course examines the spatial dynamics of empire, the frontier, regional development, the social character of settlement patterns, and the evolution of the cultural landscapes of America from pre-European times to 1900. All-day northern Illinois field trip required.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course offered in even years.

Equivalent Course(s): HIST 38800, HIST 28800, GEOG 21900

GEOG 32101. Changing America in the Last 100 Years. 100 Units.

This course explores the regional organization of U.S. society and its economy during the pivotal twentieth century, emphasizing the shifting dynamics that explain the spatial distribution of people, resources, economic activity, human settlement patterns, and mobility. We put special focus on the regional restructuring of industry and services, transportation, city growth, and cultural consumption. Two-day weekend field trip to the Mississippi River required. This course is part of the College Course Cluster program: Urban Design.

Instructor(s): M. Conzen Terms Offered: Winter

Equivalent Course(s): HIST 27506, GEOG 22101, HIST 37506

GEOG 32700. Urban Structure and Process. 100 Units.

This course reviews competing theories of urban development, especially their ability to explain the changing nature of cities under the impact of advanced industrialism. Analysis includes a consideration of emerging metropolitan regions, the microstructure of local neighborhoods, and the limitations of the past American experience as a way of developing urban policy both in this country and elsewhere.

Instructor(s): M. Garrido Terms Offered: Spring

Equivalent Course(s): CRES 20104, SOCI 20104, SOCI 30104, GEOG 22700, SOSC 25100

GEOG 33003. Urban Europe, 1600-present. 100 Units.

This course examines the growth, structure, and, on occasion, decline of European towns and cities from the seventeenth century to the present. The focus throughout is on questions directly related to the positioning, form, and function of urban communities and to the efforts of interest groups and policy makers to shape and promote the fortunes of these communities. The course is interdisciplinary in spirit and content, drawing on the contributions of historians, geographers, sociologists, economists, demographers, political scientists, urban planners, and others. There are no prerequisites; the readings and lectures cover whatever needs to be known about theories, methods, and the European context.

Instructor(s): J. Craig Terms Offered: Winter

Equivalent Course(s): HIST 23003, GEOG 23003, HIST 33003

GEOG 33500. Urban Geography. 100 Units.

This course examines the spatial organization and current restructuring of modern cities in light of the economic, social, cultural, and political forces that shape them. It explores the systematic interactions between social process and physical system. We cover basic concepts of urbanism and urbanization, systems of cities urban growth, migration, centralization and decentralization, land-use dynamics, physical geography, urban morphology, and planning. Field trip in Chicago region required. This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course offered in even years.

Equivalent Course(s): ENST 24660, GEOG 23500

GEOG 33700. Geographical Issues in Housing and Community Development. 100 Units.

This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Spring. This course offered in even years.

Prerequisite(s): Open to Chicago Studies Program students.

Equivalent Course(s): PBPL 23700, GEOG 23700

GEOG 34100. Urban Design: The Chicago Experience. 100 Units.

This course examines the theory and practice of urban design at the scale of block, street, and building--the pedestrian realm. Topics include walkability, the design of streets, architectural style and its effect on pedestrian experience, safety and security in relation to accessibility and social connection, concepts of urban fabric, repair and placemaking, the regulation of urban form, and the social implications of civic spaces. Students will analyze normative principles and the debates that surround them through readings and discussion, as well as firsthand interaction with the urbanism of Chicago.

Equivalent Course(s): SOSC 26001, GEOG 24100, PBPL 24105, SOSC 36001

GEOG 34300. Chicago by Design. 100 Units.

This course examines the theory and practice of urban design at the scale of block, street and building - the pedestrian realm. Topics include walkability, the design of streets, architectural style and its effect on pedestrian experience, safety and security in relation to accessibility and social connection, concepts of urban fabric, repair and placemaking, the regulation of urban form, and the social implications of civic spaces. Students will analyze normative principles and the debates that surround them through readings and discussion as well as first hand interaction with the urbanism of Chicago.

Instructor(s): E. Talen Terms Offered: Spring

Prerequisite(s): Offered at the Graduate level only

Equivalent Course(s): PPHA 37225, SOSC 36003

GEOG 34600. Introduction to Urban Sciences. 100 Units.

This course is a grand tour of conceptual frameworks, general phenomena, emerging data and policy applications that define a growing scientific integrated understanding of cities and urbanization. It starts with a general outlook of current worldwide explosive urbanization and associated changes in social, economic and environmental indicators. It then introduces a number of historical models, from sociology, economics and geography that have been proposed to understand how cities operate. We will discuss how these and other facets of cities can be integrated as dynamical complex systems and derive their general characteristics as social networks embedded in structured physical spaces. Resulting general properties of cities will be illustrated in different geographic and historical contexts, including an understanding of urban resource flows, emergent institutions and the division of labor and knowledge as drivers of innovation and economic growth. The second part of the course will deal with issues of inequality, heterogeneity and (sustainable) growth in cities. We will explore how these features of cities present different realities and opportunities to different individuals and how these appear as spatially concentrated (dis)advantage that shape people's life courses. We will show how issues of inequality also have consequences at more macroscopic levels and derive the general features of population and economic growth for systems of cities and nations.

Instructor(s): Luis Bettencourt Terms Offered: Autumn

Prerequisite(s): STAT 22000

Equivalent Course(s): GEOG 24600, SOCI 20285, ENST 24600, PBPL 24605

GEOG 34700. Introduction to Urban Planning. 100 Units.

The academic study of urban planning encompasses a range of issues dealing with cities, from urban design to governance, economic development, local politics, and place. The goal of this course is to provide a broad overview of urban planning theory and history while at the same time introducing students to basic GIS applications for urban planners. This format provides students with a better contextual understanding of the wide range of issues currently facing 21st century cities, and at the same time serves as an introduction to the everyday practice of urban planning. The course includes readings from prominent urban theorists, a discussion of the historical development of the urban planning profession in the US, and GIS exercises that allow students to apply their theoretical urban knowledge to real-world planning problems.

Instructor(s): Kevin Credit Terms Offered: Autumn

Equivalent Course(s): ENST 24680, GEOG 24700

GEOG 35400. Ancient Landscapes I. 100 Units.

This is a two-course sequence that introduces students to theory and method in landscape studies and the use of Geographical Information Systems (GIS) to analyze archaeological, anthropological, historical, and environmental data. Course one covers the theoretical and methodological background necessary to understand spatial approaches to landscape and the fundamentals of using ESRI's ArcGIS software, and further guides students in developing a research proposal. Course two covers more advanced GIS-based analysis (using vector, raster, and satellite remote sensing data) and guides students in carrying out their own spatial research project. In both courses, techniques are introduced through the discussion of case studies (focused on the archaeology of the Middle East) and through demonstration of software skills. During supervised laboratory times, the various techniques and analyses covered will be applied to sample archaeological data and also to data from a region/topic chosen by the student.

Instructor(s): Staff Terms Offered: Autumn

Equivalent Course(s): ANTH 36710, NEAA 30061, GEOG 25400, ANTH 26710, NEAA 20061

GEOG 35500. Biogeography. 100 Units.

This course examines factors governing the distribution and abundance of animals and plants. Topics include patterns and processes in historical biogeography, island biogeography, geographical ecology, areography, and conservation biology (e.g., design and effectiveness of nature reserves).

Instructor(s): B. Patterson (odd years, lab), L. Heaney (even years, discussion) Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence and a course in either ecology, evolution, or earth history; or consent of instructor

Equivalent Course(s): GEOG 25500, BIOS 23406, EVOL 45500, ENST 25500

GEOG 35800. Ancient Landscapes II. 100 Units.

This is a two-course sequence that introduces students to theory and method in landscape studies and the use of Geographical Information Systems (GIS) to analyze archaeological, anthropological, historical, and environmental data. Course one covers the theoretical and methodological background necessary to understand spatial approaches to landscape and the fundamentals of using ESRI's ArcGIS software, and further guides students in developing a research proposal. Course two covers more advanced GIS-based analysis (using vector, raster, and satellite remote sensing data) and guides students in carrying out their own spatial research project. In both courses, techniques are introduced through the discussion of case studies (focused on the archaeology of the Middle East) and through demonstration of software skills. During supervised laboratory times, the various techniques and analyses covered will be applied to sample archaeological data and also to data from a region/topic chosen by the student.

Instructor(s): Staff Terms Offered: Winter

Prerequisite(s): NEAA 20061

Equivalent Course(s): ANTH 36711, ANTH 26711, NEAA 20062, GEOG 25800, NEAA 30062

GEOG 35900. Introduction to Location Analysis. 100 Units.

Understanding the location of business activities - agricultural, industrial, retail, and knowledge-based - has long been a focus for economic geographers, regional scientists, and urban planners. This course traces the key theories and conceptual models that have been developed over time to explain why economic activities tend to locate where they do. To introduce and explain these theories, this course covers several foundational concepts in economic geography and urban planning, such as: bid-rent theory, locational triangulation, various models of urban structure and growth, urban market areas, transportation, economic restructuring, and the "back-to-the-city" movement. This course incorporates several GIS exercises to teach students the basic principles of location optimization and to help illuminate the foundational theoretical principles of economic geography.

Instructor(s): K. Credit Terms Offered: Spring

Equivalent Course(s): ENST 25910, GEOG 25900

GEOG 36005. Seminar in City Planning. 100 Units.

This is a graduate seminar devoted to the topic of city planning history. Through visual and textual analysis, we will explore the history of physical plans, drawing from all time periods and cultures. Students will have the opportunity to contrast competing theories of good city-making, relating cultural and temporal variations to social, political, cultural and economic forces. Students will also explore the question of plan implementation and whether plans have had any tangible effect on urban pattern and form.

Instructor(s): E. Talen Terms Offered: Autumn

Equivalent Course(s): PPHA 37230, SOSC 36005

GEOG 36100. Roots of the Modern American City. 100 Units.

This course traces the economic, social, and physical development of the city in North America from pre-European times to the mid-twentieth century. We emphasize evolving regional urban systems, the changing spatial organization of people and land use in urban areas, and the developing distinctiveness of American urban landscapes. All-day Illinois field trip required. This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course offered in odd years.

Equivalent Course(s): HIST 28900, ENST 26100, HIST 38900, GEOG 26100

GEOG 38000. GIScience Practicum. 100 Units.

This applied course in geographic information science builds upon and refines knowledge and geocomputational expertise gained in the GIScience sequence. Students will develop multifaceted GIS project incorporating spatial thinking in design, infrastructure, and implementation. Projects could include the development of a web application, dynamic dashboard, interactive storytelling map, infographic-driven policy brief, or research article and are encouraged to link additional disciplines like health, sociology, economics, or political science.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): GEOG 38202; GEOG 38402

Equivalent Course(s): GEOG 28000

GEOG 38202. Geographic Information Science I. 100 Units.

This course introduces students to a wide range of geospatial technologies and techniques in order to explain the basic theory and application of geographic information systems (GIS). To do this, students will use open source or free software such as QGIS and Google Earth Pro to complete GIS lab exercises that cover a range of topics, including an introduction to different types of geospatial data, geographic measurement, GIS, principles of cartography, remote sensing, basic GIS mapping and spatial analysis techniques, remote sensing, and specific geospatial applications such as 3D modeling and geodesign. By providing a general overview of geospatial technologies, this course provides students with a broad foundational knowledge of the field of GIScience that prepares them for more specialized concepts and applications covered in future GIS courses.

Instructor(s): Kevin Credit Terms Offered: Autumn

Equivalent Course(s): GEOG 28202

GEOG 38402. Geographic Information Science II. 100 Units.

This course investigates the theory and practice of infrastructure and computational approaches in spatial analysis and GIScience. Geocomputation is introduced as a multidisciplinary systems paradigm necessary for solving complex spatial problems and facilitating new understandings. Students will learn about the elements of spatial algorithms and data structures, geospatial topologies, spatial data queries, and the basics of geodatabase architecture and design.

Instructor(s): M. Kolak Terms Offered: Winter

Prerequisite(s): GEOG 38202

Equivalent Course(s): GEOG 28402

GEOG 38602. Geographic Information Science III. 100 Units.

This advanced course extends and connects both foundational and functional GIScience concepts. Students will be introduced to advanced programming and scripting languages necessary for spatial analysis and GIScience applications. Additional topics include customization, enterprise GIS, web GIS, and advanced visualization and analytic techniques.

Instructor(s): M. Kolak Terms Offered: Spring

Prerequisite(s): GEOG 38202 and GEOG 38402

Equivalent Course(s): GEOG 28602

GEOG 38700. Readings in Spatial Analysis. 100 Units.

This independent reading option is an opportunity to explore special topics in the exploration, visualization and statistical modeling of geospatial data.

Instructor(s): K. Credit and M. Kolak Terms Offered: Autumn Spring Winter. Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading.

Note(s): By permission of instructor only.

Equivalent Course(s): GEOG 28700, ENST 28800

GEOG 38702. Introduction to GIS and Spatial Analysis. 100 Units.

This course provides an introduction and overview of how spatial thinking is translated into specific methods to handle geographic information and the statistical analysis of such information. This is not a course to learn a specific GIS software program, but the goal is to learn how to think about spatial aspects of research questions, as they pertain to how the data are collected, organized and transformed, and how these spatial aspects affect statistical methods. The focus is on research questions relevant in the social sciences, which inspires the selection of the particular methods that are covered. Examples include spatial data integration (spatial join), transformations between different spatial scales (overlay), the computation of "spatial" variables (distance, buffer, shortest path), geovisualization, visual analytics, and the assessment of spatial autocorrelation (the lack of independence among spatial variables). The methods will be illustrated by means of open source software such as QGIS and R.

Instructor(s): M. Kolak Terms Offered: Spring

Equivalent Course(s): ENST 28702, GEOG 28702

GEOG 38800. History of Cartography. 100 Units.

This course offers a grand overview of the key developments in mapmaking throughout history worldwide, from pre-literate cartography to the modern interactive digital environment. It looks at the producers, their audience, the technologies and artistic systems used, and the human and global contexts in which they developed. The course also draws on the extensive map collections of Regenstein Library.

Instructor(s): Staff Terms Offered: TBD

Equivalent Course(s): GEOG 28800

GEOG 38900. Readings in Urban Planning and Design. 100 Units.

This independent reading option is an opportunity to explore contemporary debates and theoretical arguments involved in the planning and design of cities.

Instructor(s): E. Talen Terms Offered: Autumn Spring Winter. Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading.

Note(s): By permission of instructor only.

Equivalent Course(s): GEOG 28900, ENST 28980

GEOG 40217. Spatial Regression Analysis. 100 Units.

This course covers statistical and econometric methods specifically geared to the problems of spatial dependence and spatial heterogeneity in cross-sectional data. The main objective of the course is to gain insight into the scope of spatial regression methods, to be able to apply them in an empirical setting, and to properly interpret the results of spatial regression analysis. While the focus is on spatial aspects, the types of methods covered have general validity in statistical practice. The course covers the specification of spatial regression models in order to incorporate spatial dependence and spatial heterogeneity, as well as different estimation methods and specification tests to detect the presence of spatial autocorrelation and spatial heterogeneity. Special attention is paid to the application to spatial models of generic statistical paradigms, such as Maximum Likelihood, Generalized Methods of Moments and the Bayesian perspective. An important aspect of the course is the application of open source software tools such as R, GeoDa and PySAL to solve empirical problems.

Instructor(s): Staff Terms Offered: Spring

Equivalent Course(s): MACS 55000, SOCI 40217

GEOG 42400. Urban Landscape As Social Text. 100 Units.

The seminar explores conceptually how urban landscapes are formed (literally) and reciprocally how they inform social perceptions of community settings (figuratively). This is done through an initial program of reading and discussion, as well as pursuit of individual student projects, discussed as they progress, leading to a final research paper. The course serves students searching for and defining possible thesis and dissertation topics, as well as those interested in exploring an intellectual curiosity for its own sake. - CONZEN Fall Quarter

Instructor(s): M. Conzen Terms Offered: Autumn

Prerequisite(s): Advanced standing and consent of instructor.

Equivalent Course(s): SOCI 30303

GEOG 51500. Urban Geography. 100 Units.

Study of a selected research topic in urban geography, leading to a final paper. Consent of instructor required. - CONZEN, TALEN, BARLOW

Instructor(s): M. Conzen, E. Talen. Terms Offered: Autumn, Spring, Winter

Note(s): Consent of instructor.

GEOG 51800. Rsch: Historical Geography. 100 Units.

This course is intended for individual study of selected problems in historical geography, with periodic meetings with the instructor to discuss progress, leading to a final research paper.

Instructor(s): M. Conzen Terms Offered: Autumn, Spring, Winter

Prerequisite(s): Consent of instructor

GEOG 51900. Rsch: Historical Geography of the U.S. and Canada. 100 Units.

This course is intended for individual study of selected problems in the historical geography of the United States and Canada, with periodic meetings with the instructor to discuss progress, leading to a final research paper.

Instructor(s): M. Conzen Terms Offered: Autumn, Spring, Winter

Prerequisite(s): Consent of instructor

GEOG 52500. Rsch: American Urbanization. 100 Units.

This course is intended for individual study of selected problems in American urbanization, with periodic meetings with the instructor to discuss progress, leading to a final research paper.

Instructor(s): M. Conzen, E. Talen Terms Offered: Autumn, Spring, Winter

Prerequisite(s): Consent of instructor

GEOG 59800. Rsch: Topics in Geography. 100 Units.

This course is intended for individual study of selected problems in geography, with periodic meetings with the instructor to discuss progress, leading to a final research paper.

Instructor(s): M. Conzen, L. Anselin, E. Talen. Terms Offered: Autumn Spring Winter

Prerequisite(s): Consent of instructor



DEPARTMENT OF HISTORY

Department Website: <http://history.uchicago.edu>

Chair

- Emilio H. Kourí

Professors

- Clifford Ando, Classics
- Leora Auslander
- John W. Boyer
- Mark P. Bradley
- Alain Bresson, Classics
- Susan Burns
- Dipesh Chakrabarty
- Paul Cheney
- Bruce Cumings
- Brodwyn Fischer
- Cornell Fleischer, Near Eastern Languages and Civilizations
- Jan Ellen Goldstein
- Ramón Gutiérrez
- Jonathan Hall
- James Hevia, College
- Thomas Holt
- Adrian D.S. Johns
- James Ketelaar
- Emilio H. Kourí
- Jonathan Levy
- David Nirenberg, Committee on Social Thought
- Steven Pincus
- Kenneth Pomeranz
- Robert J. Richards
- Mauricio Tenorio
- John E. Woods
- Tara Zahra

Associate Professors

- Fredrik Albritton Jonsson
- Guy S. Alitto
- Dain Borges
- Matthew Briones
- Jane Dailey
- Jacob Eyferth, East Asian Languages and Civilizations
- Rachel Fulton Brown
- Adam Green
- Faith Hillis
- Jonathan Lyon
- Emily Osborn
- Ada Palmer
- Richard Payne
- Johanna Ransmeier
- James Sparrow
- Amy Dru Stanley

Assistant Professors

- Margaret M. Andrews
- Kathleen Belew
- Eleanor Gilburd
- Alice Goff
- Destin Jenkins
- Matthew Kruer
- Michael Rossi

Associate Faculty

- Muzaffar Alam, South Asian Languages and Civilizations
- Michael Allen, Classics
- Fred Donner, Near Eastern Languages and Civilizations
- James Grossman, Executive Director of the American Historical Association
- R.H. Helmholtz, Law School
- Dennis Hutchinson, Master New Collegiate Division
- Alison LaCroix, Law School
- Rochona Majumdar, South Asian Languages and Civilizations
- Paul Mendes Flohr, Divinity School
- Willemien Otten, Divinity School
- John F. Padgett, Political Science
- A. Holly Shissler, Near Eastern Languages and Civilizations
- Laura Weinrib, Law School

Emeritus Faculty

- Ralph A. Austen
- Kathleen Neils Conzen
- Edward Cook
- Prasenjit Duara
- Constantin Fasolt
- Sheila Fitzpatrick
- Michael Geyer
- Hanna H. Gray
- Harry Harootunian
- Neil Harris
- Ronald B. Inden
- Walter E. Kaegi
- Julius Kirshner
- Tetsuo Najita
- Julie Saville
- William Sewell
- Christine Stansell
- Ronald Suny
- Noel Swedlow
- Bernard Wasserstein

From its 1892 establishment as one of the founding departments of the University of Chicago, the History Department has fostered programs leading to the Ph.D. degree in a broad range of fields. Theoretically sophisticated comparative and interdisciplinary approaches are a hallmark of our program. Along with graduate fields organized by traditional regional, national, and chronological boundaries, the Department offers a comprehensive range of interdisciplinary, theoretical, and comparative fields of study.

The History Department expects to welcome about twenty new graduate students each year. They are broadly distributed by field and backgrounds. Faculty members work in close concert with students in the small graduate seminars, colloquia, and tutorials that form the core of advanced training at Chicago. It is here, in intense interaction with faculty and fellow students, that individual interests and the professional skills of the historian are honed. As in any history program, a student is expected to learn to read critically, to search out

and analyze primary materials with skill, and to write with rigor. At Chicago, we also expect that students will demonstrate, through their own creativity, a significant advancement in the field itself.

Students are strongly encouraged to take courses outside of History and to compose one of their three oral fields in a comparative or theoretical discipline. There are extensive opportunities to develop ancillary fields with faculty in other social science and humanities programs, and in the University's professional schools. Through consortia arrangements, students can also supplement their Chicago studies with work at Stanford, Berkeley, or any of the Ivy League or Big Ten Midwestern universities, where they can earn credit for courses while registered at the University of Chicago.

Central to our program are interdisciplinary workshops and special conferences that bring together students and faculty from throughout the University for intellectual exchange. Some recent workshops involving Department members include African Studies; Early Modern and Mediterranean Worlds; East Asia: Politics, Society and Economy; East Asia: Trans-Regional Histories; Gender and Sexuality Studies; Historical Capitalisms; History, Philosophy and Sociology of Science; Interdisciplinary Approaches to Modern France and the Francophone World; Interdisciplinary Approaches to Russia, Eastern Europe and Central Asia; Late Antiquity and Byzantium; Latin American and the Caribbean; Medieval Studies; Medicine and Its Objects; Reproduction of Race and Racial Ideologies; Transnational Approaches to Modern Europe; and US History. Workshops ensure dissertation writing students a supportive intellectual community within which both students and faculty are able to present and comment upon research in progress.

For more detailed information on History Department faculty and the graduate program, please visit the Department's website at <http://history.uchicago.edu/>.

ADMISSION

Requirements for admission are:

1. The degree of Bachelor of Arts or its equivalent
2. A distinguished undergraduate record
3. High competence in foreign language

Four parts of the application are critically important: the student's academic record, letters of recommendation submitted by persons able to describe the student's achievements and promise, a significant example of the student's work, (bachelor's essay, master's thesis, research or course paper) and, finally, the student's statement of purpose, which describes the intellectual issues and historical subjects to be explored at the University of Chicago. Although many graduate students change their focus in the course of their studies, it is helpful to have the clearest possible idea of applicants' interests and any research experience to date.

In addition, applicants are required to submit Graduate Record Examination (GRE) aptitude scores that are not more than five years old (the History subject test is not required). It is advisable to take the GRE no later than October so that scores will arrive on time. International applicants must meet English language requirements set by the school. The requirements can be met through a waiver, the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <https://apply-ssd.uchicago.edu/apply/>

Questions pertaining to admissions and aid should be directed to [s\(admissions@ssd.uchicago.edu\)sd-admissions@uchicago.edu](mailto:s(admissions@ssd.uchicago.edu)sd-admissions@uchicago.edu) or (773) 702-8415. The documents needed for the application can be uploaded through the online application.

PROGRAM FOR THE FIRST YEAR

Normal registration the first year is eight graded courses. Among the eight courses taken, the curriculum for the first year prescribes:

1. Two-quarter seminar
2. Historiography course (HIST 69900 Colloquium: Historiography)
3. Five additional courses

These courses are taken for letter grades and must be completed by the end of the spring quarter. Students receive the master's degree upon completing the first year curriculum.

Students are also required to take a foreign language reading examination during their first term. Each field will specify the language(s) to be used and the degree of proficiency required. The fields will also determine whether students have met the requisite standards.

Near the end of the spring quarter a faculty committee will decide whether a student is qualified to proceed toward the Ph.D. degree. Evidence for the judgment will be:

1. Evaluation of the seminar paper
2. Autumn and winter quarter course grades
3. Successful completion of at least one foreign language examination

AFTER THE FIRST YEAR

Students who are recommended for the Ph.D. continue their formal study and will be expected to complete another year of graded course work including another graded seminar, unless they petition for credit for previous graduate work. The Ph.D. field examination is taken after completion of coursework by October 20th of the third year. Students are examined in three Ph.D. fields in a two-hour oral examination. By the end of the third year, the student presents the dissertation proposal at a hearing, and it must be approved by the dissertation committee. The student is then admitted to candidacy for the doctoral degree after the hearing and all other requirements are complete.

PRE-DISSERTATION FELLOWSHIPS

The Freehling, Kunstadter, and Sinkler families and friends have made funds available for summer research fellowships of up to \$2,000 to support travel to archival collections. Two Eric Cochrane Traveling Fellowships of \$3,000 each are awarded annually to assist graduate students in Western European History in making a summer research trip to Europe. The John Hope Franklin Fellowship was created to award students working on African American or Southern U.S. history conduct summer archival research. Other fellowships may be available each year. Awards of up to \$300 for travel to present papers at scholarly conferences are available.

WORK ON THE DISSERTATION

Following approval of the dissertation proposal and subsequent admission to candidacy for the Ph.D. degree, students are expected to devote their time to dissertation research. Each year the Division of Social Sciences and the department awards a number of dissertation write-up fellowships including departmental fellowships funded by the W Duncan and Barnard families and the Quinn foundation. Formal defense of the completed dissertation, written with the guidance of a three or four member dissertation committee, concludes the degree requirements. All requirements for the Ph.D. degree including the final defense must be completed within nine years from the date of matriculation for students entering the program in Autumn 2016 or later, although many students graduate in six to eight years time.

TEACHING OPPORTUNITIES

Teaching is required for students in the Ph.D. program. Students serve as assistants and lecturers in introductory History courses, Social Sciences and Humanities core sequences, the College writing program, and various civilizations sequences. The History Department's von Holst Prize Lectureships permit three students to design undergraduate courses centered on their dissertation research. The students who receive the Bessie L. Pierce Prize Preceptorship Award guide third and fourth year History undergraduates in A.B. essay seminars. Students acquire initial teaching experience through an internship program in which they assist faculty with the design, teaching, and grading of courses. Numerous students also gain valuable college teaching experience in other Chicago area institutions.

HISTORY COURSES

HIST 30404. Troy and Its Legacy. 100 Units.

This course will explore the Trojan War through the archaeology, art, and mythology of the Greeks and Romans, as well as through the popular imaginings of it in later cultures. The first half will focus on the actual events of the "Trojan War" at the end of the second millennium BCE. We will study the site of Troy, the cities of the opposing Greeks, and the evidence for contact, cooperation, and conflict between the Greeks and Trojans.

Students will be introduced to the history of archaeology and the development of archaeological fieldwork. The second half will trace how the narrative and mythology of Homer's *Iliad* and the Trojan War were adapted and used by later civilizations, from classical Greece to twenty-first-century America, to justify their rises to political and cultural hegemony in the Mediterranean and the West, respectively.

Instructor(s): M. Andrews Terms Offered: Spring

Equivalent Course(s): CLAS 30404, ANTH 36120, ANTH 26120, CLCV 20404, HIST 20404

HIST 30507. The Idea of Freedom in Antiquity. 100 Units.

Freedom may be the greatest of American values. But it also has a long history, a dizzying variety of meanings, and a huge literature. This course will be an introduction to critical thinking on freedom (primarily political freedom) with an emphasis on Greco-Roman texts. The first half of the class will focus on Greek authors, including Herodotus, Euripides, and Aristotle. The second half will focus on Roman authors, from Cicero to Livy to Tacitus. The ancient texts will be supplemented by modern literature on freedom, such as John Stuart Mill and Isaiah Berlin.

Instructor(s): A. Horne Terms Offered: Autumn

Equivalent Course(s): CLCV 24319, HIST 20507, CLAS 34319, LLSO 24319

HIST 32611. Paris from "Les Misérables" to the Liberation, c. 1830-1950. 100 Units.

Starting with the grim and dysfunctional city described in Victor Hugo's "Les Misérables," the course will examine the history of Paris over the period in which it became viewed as the city par excellence of urban modernity through to the testing times of Nazi occupation and then liberation (c. 1830-1950). As well as focussing on architecture and the built environment, we will examine the political, social, and especially cultural history of the city. A particular feature of the course will be representations of the city-literary (Victor Hugo, Baudelaire, Zola, etc.) and artistic (impressionism and postimpressionism, cubism, surrealism). We will also examine the city's own view of itself through the prism of successive world fairs (expositions universelles).

Instructor(s): C. Jones Terms Offered: Spring

Prerequisite(s): Students taking FREN 22620/32620 must read texts in French.

Equivalent Course(s): HIST 22611, ENST 22611, FREN 22620, FREN 32620

HIST 35318. Wonder, Wonders, and Knowing. 100 Units.

In wonder is the beginning of philosophy," wrote Aristotle; Descartes also thought that those deficient in wonder were also deficient in knowledge. But the relationship between wonder and inquiry has always been an ambivalent one: too much wonder stupefies rather than stimulates investigation, according to Descartes; Aristotle explicitly excluded wonders as objects of inquiry from natural philosophy. Since the sixteenth century, scientists and scholars have both cultivated and repudiated the passion of wonder; ON the one hand, marvels (or even just anomalies) threaten to subvert the human and natural orders; on the other, the wonder they ignite fuels inquiry into their causes. Wonder is also a passion tinged with the numinous, and miracles have long stood for the inexplicable in religious contexts. This seminar will explore the long, vexed relationship between wonder, knowledge, and belief in the history of philosophy, science, and religion.

Instructor(s): Lorraine Daston Terms Offered: Spring. Course to be taught Spring 2020

Prerequisite(s): Reading knowledge of at least one language besides English, some background in intellectual history. Consent is required for both grads and undergrads. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): SETH 30926, PHIL 30926, KNOW 30926, HIST 25318, CHSS 30936

HIST 35416. History of Technology in America. 100 Units.

From the very earliest days of the United States, science and technology have played a fundamental role in how Americans think of themselves and their communities. This course examines the entwined histories of technology and American culture between two especially dramatic periods of techno-scientific transformation: from the industrial push following the end of the Civil War to the "revolution" in genomics and informatics that characterizes our present age. From railroads, telegraphs, and telephones which drew distant towns into tight-knit networks; to electrical marvels which engendered new forms of consumption and socialization; to the wonders and perils of atomic power, space flight, and genetic engineering, different groups of Americans have wrestled with questions of community, identity, ideology and politics through and with products of technological innovation. In the course of investigating these and other topics, students will examine a variety of primary and secondary sources; and will be expected to write weekly response papers and two short research papers.

Instructor(s): M. Rossi Terms Offered: Winter

Equivalent Course(s): HIST 25416, CHSS 35416, HIPS 25416

HIST 36511. Cities from Scratch: The History of Urban Latin America. 100 Units.

Latin America is one of the world's most urbanized regions, and its urban heritage long predates European conquest. And yet the region's cities are most often understood through the lens of North Atlantic visions of urbanity, many of which fit poorly with Latin America's historical trajectory, and most of which have significantly distorted both Latin American urbanism and our understandings of it. This course takes this paradox as the starting point for an interdisciplinary exploration of the history of Latin American cities in the nineteenth and twentieth centuries, focusing especially on issues of social inequality, informality, urban governance, race, violence, rights to the city, and urban cultural expression. Readings will be interdisciplinary, including anthropology, sociology, history, fiction, film, photography, and primary historical texts.

Instructor(s): B. Fischer Terms Offered: Winter

Prerequisite(s): Some knowledge of Latin America or urban studies helpful.

Equivalent Course(s): LACS 26510, HIST 26511, LACS 36510, ENST 26511

HIST 37118. Religion In 20th Century America. 100 Units.

This course is the second in a two-part series that examines the historical development of religious traditions in the United States from the Civil War to the late 20th century. For this course, we begin with the 1920s. We examine a diverse array of religious traditions and issues, but a central theme of the course is the way in which various groups wrestle with how to maintain distinctive religious cultures in the midst of broader social and cultural changes. Among the issues discussed through lectures and the readings are the following: women and gender, race, debates about the public role of religion, the problems and perennial contentions around increasing religious diversity, the quest for "spirituality" apart from religious institutions, and increasing uneasiness over organized religion as a normative source of authority.

Instructor(s): Curtis Evans Terms Offered: Autumn

Equivalent Course(s): RLST 13600, RAME 43600, HCHR 43600

HIST 37709. Soul and the Black Seventies. 100 Units.

This course considers in what ways soul as cultural genre and style shaped, and was shaped by, the political, social, structural, cultural, and ethical shifts and conditions associated with the 1970s. It will focus on popular music as both symbolic field and system of production, while also taking up other forms of expression-literary, intellectual, institutional, activist-in order to propose an alternate, and compelling, archive for this era. The course intends to deepen understanding of the feel and meaning of soul by relating it to consequential legacies of the 1970s: urban identity and crisis, emerging limitations of racial reformism, the deepening class stratification of Black life, and the radical disruption of social norms through feminism, in particular Black feminism.

Instructor(s): A. Green Terms Offered: Spring

Prerequisite(s): Graduate students by consent of instructor.

Equivalent Course(s): MUSI 27709, CRES 27709, HIST 27709, GNSE 27709, CRES 37709, MUSI 37709, GNSE 37709

HIST 39319. Human Rights: Philosophical Foundations. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 21002, PHIL 31002, PHIL 21002, INRE 31602, HIST 29319, LLSO 21002, MAPH 42002, HMRT 31002

HIST 39527. The Spatial History of Nineteenth-Century Cities: Tokyo, London, New York. 100 Units.

The late-nineteenth century saw the transformation of cities around the world as a result of urbanization, industrialization, migration, and the rise of public health. This course will take a spatial history approach; that is, we will explore the transformation of London, Tokyo, and New York over the course of the nineteenth century by focusing on the material "space" of the city. For example, where did new immigrants settle and why? Why were there higher rates of infectious disease in some areas than in others? How did new forms of public transportation shape the ability to move around the city, rendering some areas more central than others? To explore questions such as these, students will be introduced to ArcGIS in four lab sessions and asked to develop an original research project that integrates maps produced in Arc. No prior ArcGIS experience is necessary, although students will be expected to have familiarity with Microsoft Excel and a willingness to experiment with digital methods. Assignments: Discussion posts, homework (mapping), and a final research project.

Instructor(s): S. Burns Terms Offered: Autumn

Note(s): Making History courses forgo traditional paper assignments for innovative projects that develop new skills with professional applications in the working world. Open to students at all levels, but especially recommended for 3rd- and 4th-yr students.

Equivalent Course(s): EALC 29527, GLST 29527, ENST 29527, HIST 29527, EALC 39527

TURK 40589. Advanced Ottoman Historical Texts. 100 Units.

Based on selected readings from major Ottoman chronicles from the fifteenth to the seventeenth centuries, the course provides an introduction to the use of primary narrative materials and an overview of the development and range of Ottoman historical writing. Knowledge of modern and Ottoman Turkish required.

Instructor(s): C. Fleischer Terms Offered: Autumn

Prerequisite(s): Consent required

Equivalent Course(s): HIST 58301

HIST 42302. Colloquium: Medieval Studies. 100 Units.

Since its beginnings as an academic field, medieval studies has been resolutely interdisciplinary. Scholars who conduct research on the Middle Ages routinely combine methods and theories drawn from a variety of disciplines, including history, art history, languages and literatures, music, and theology-to name only a few. This course will introduce graduate students to both classic historiography and important recent work in medieval studies. We will read scholarship that employs foundational methods in the field, including paleography and manuscript studies, as well as work inspired by more recent theoretical approaches.

Instructor(s): J. Lyon Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor.

HIST 47200. Early Modern North America. 100 Units.

This course focuses on the complex, contested, and often violent world of North America in the early modern period from the early sixteenth through late eighteenth century. Although in the past "early America" has sometimes been synonymous with the thirteen colonies that eventually formed the United States, this class will stress the multicultural, multi-imperial, and multipolar nature of early North America, and the many connections between the continent and the rest of the early modern world.

Instructor(s): M. Kruer Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor.

HIST 47503. Colloquium: Chicago in United States Urban History. 100 Units.

This graduate colloquium will use Chicago as a lens through which to examine the history and historiography of the American urban experience from the early nineteenth century to the present.

Instructor(s): K. Conzen Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor.

HIST 48000. Colloquium: The Age of Keynes. 100 Units.

This class uses the writings of John Maynard Keynes as a window into twentieth-century economic thinking and governance. Topics include Keynes's monetary economics in the aftermath of WWI; the General Theory in the context of the Great Depression; the construction of the post-WWII international economic order; the consolidation of Keynesian macroeconomics and the fate of social democracy.

Instructor(s): J. Levy and J. Isaac Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor

Equivalent Course(s): SCTH 48000

HIST 48700. Colloquium: Social Movements in Chicago, 1950-2010. 100 Units.

This graduate colloquium considers the constellation of social movements that emerged in Chicago in the late 1960s, using old and new approaches to contentious politics. Chicago comprises an urban context that simultaneously encompasses a robust labor tradition, coherent expressions of situated or identity-oriented advocacy, a sustained radical intellectual tradition, localized community-oriented philosophy of organizing, and one of the fullest concentrations of municipal authority, as a party machine regime and also a law enforcement apparatus. Taken together, these conditions and others mark Chicago as among the most revealing crucibles for movement building in the United States over the past half century. The course seeks to survey emerging scholarship on the constitution, contradictions, and impact of movement building in Chicago, seen largely through four case studies—the Puerto Rican movement, radical feminism, LGBTQ liberation/rights, and African American struggles to achieve police accountability. Additionally, the course will survey classic and emerging models of social-movement theory, in order to offer models of analysis for a mode of politics, power, and social formation especially consequential to recent history and poised, it seems, to continue to exert significant influence. Finally, the course will introduce students to new archives, new source bases, and community-based principles and authorities, in order to suggest innovative and relevant research projects.

Instructor(s): A. Green Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor.

Equivalent Course(s): GNSE 48700, CRES 48700

HIST 49406. History and Time. 100 Units.

This course explores the relationship between historical writing and conceptions of time. It focusses on the work of three twentieth-century theorists of history: Paul Ricoeur, Reinhart Koselleck, and J.G.A. Pocock. These figures drew on the philosophical traditions of idealism, historicism, and phenomenology; but they also studied history of historiography and political thought. We will examine their shared intellectual roots, and then turn to a close reading of a major text by each writer: Ricoeur's *TIME AND NARRATIVE*, Koselleck's *CRITIQUE AND CRISIS*, and Pocock's *THE MACHIAVELLIAN MOMENT*.

Instructor(s): Joel Isaac Terms Offered: Spring. course will be taught spring 2020

Prerequisite(s): CONSENT OF INSTRUCTOR REQUIRED.

Equivalent Course(s): SCTH 40123

HIST 49502. Colloquium: Colonialism, Globalization, and Postcolonialism. 100 Units.

This course deals with European overseas expansion from the fifteenth through nineteenth centuries, the emergence from this process of new colonial territories inhabited by non-Europeans, and the fate of these territories as "postcolonies" in the late twentieth and early twenty-first century global order. The analytic goal is to integrate politics (the formation of colonial regimes and successor nation-states); economics (the dialectics of global capitalism, European overseas expansion, and varieties of development and underdevelopment), and culture (the construction of European and Third World identities via colonialism). The lectures and assigned readings will privilege "northern" Europe, as opposed to Iberia, but will include France. We will focus upon tropical Africa, the British and French Caribbean, and South Asia, but students are welcome to challenge or extend this definition of the topic. I will normally lecture on Wednesdays, and we will normally discuss the readings on Fridays. Assignments: Two short (3-5 pp) critical papers on specialized readings and one longer final essay (10-12 pp) discussing an approved, self-selected topic. The analysis of these readings must take into account the relevant general material in the course. Students may select a take-home final exam based on the required readings as an alternative to the longer paper.

Instructor(s): R. Austen Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor.

HIST 49700. Colloquium: The Informal-Economics, Politics, and Social Ties in the City. 100 Units.

This course engages the paradox of the informal, the range of political practices, social ties, and economic modalities seemingly in but not of "formal" institutions, norms, and sectors. It begins with engaging the foundational debates on the informal, debates that challenge the neat separation between the formal and informal and which sharpen the conceptual differences between the informal, the illicit, and the underground. Readings consist of some theory, a handful of primary sources, and mostly secondary readings on cities that cut across different political economic contexts and chronological and geographical boundaries. Themes include urban space, race, gender, borders, policing and regulation. Along the way we will consider the problem of the archive (its silences and elisions), as well as the normative judgments that frame historical interpretations of the informal.

Instructor(s): D. Jenkins Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor

HIST 53003. Coll: Religion and Politics in Modern Europe, 1740-Present. 100 Units.

A two-quarter research seminar; the first quarter may be taken separately as a colloquium (register for HIST 53003). The longstanding idea of the progressive secularization of modern society—an idea germinated during the Enlightenment and made more explicit by such nineteenth-century social theorists as Comte, Weber, and Durkheim—no longer commands much assent today, though western Europe seems a better instantiation of it than anywhere else. Starting with an examination of the so-called secularization thesis, this seminar will examine such topics as divergent interpretations of the Enlightenment view of religion; the religious impact of the French Revolution; the shifting patterns of religious practice that evolved during the nineteenth century; the role of religiously based, mass political movements in the crisis of the liberal state in the late nineteenth century; the nineteenth-century transformation of religion into an object of scientific study (philology, sociology of religion); Marian apparitions and miraculous cures in the nineteenth century (Lourdes, Marpingen); Jewish emancipation; the European encounter with Islam; and the opposition to organized religion and the churches offered by the Left and the Right, as part of the larger debate about the extent to which (private) corporate norms and values should be able to influence civic life in the modern liberal or modern authoritarian state.

Instructor(s): J. Boyer and J. Goldstein Terms Offered: Autumn

Prerequisite(s): Graduate students only with consent of instructor; European language not required for students taking colloquium. Meets with HIST 74605.

HIST 58601. Colloquium: Iran and Central Asia I-Safvid Iran. 100 Units.

The first quarter will take the form of a colloquium on the sources for and the literature on the political, social, economic, technological, and cultural history of Western and Central Asia from approximately 1500 to 1750. Classroom presentations and a short paper are required.

Instructor(s): J. Woods Terms Offered: Autumn

Prerequisite(s): Open to upper-level ugrads with consent of instructor.

Equivalent Course(s): CMES 58601, NEHC 30943

HIST 58602. Colloquium: Iran and Central Asia II-Safvid Iran. 100 Units.

The second quarter will be devoted to the preparation of a major research paper.

Instructor(s): J. Woods Terms Offered: Winter

Prerequisite(s): HIST 58601; open to upper-level undergraduates with consent

Equivalent Course(s): NEHC 30944, CMES 58602

HIST 60302. Coll: Immigration and Assimilation in American Life. 100 Units.

This course explores the history of immigration in what is now the United States, starting with the colonial origins of Spanish, French, Dutch, and English settlements, the importation of African slaves, and the massive waves of immigrants that arrived in the nineteenth and twentieth century. Additionally, we will study the adaptation of these immigrants, exploring the validity of the concept of assimilation, comparing and contrasting the experiences of the "old" and "new" immigrants based on their race, religion, and class standing.

Instructor(s): R. Gutiérrez Terms Offered: Autumn

Prerequisite(s): Open to upper-level ugrads with consent of instructor

Equivalent Course(s): AMER 60302, LACS 60302, GNSE 60300

HIST 69100. Colloquium: The Antillean Plantation Complex. 100 Units.

This colloquium will examine the plantation complex as it developed in the Caribbean basin over the long eighteenth century (circa 1650-1825), with an emphasis on the French and British islands. We will pay particular attention to the long-debated role of plantation slavery and the production of tropical commodities in laying the basis for modern forms of capitalist accumulation. We will also consider demographic developments, the ecological impact of the plantation system, creole culture, metropole-colony relations, the role of Enlightenment thought, and gender.

Instructor(s): P. Cheney Terms Offered: Autumn

HIST 69900. Colloquium: Historiography. 100 Units.

This course is designed as a forum to grasp intellectual issues across the historical discipline and balance the tendency towards specialization in the profession. A ten-week course can hardly do justice to debates on the nature of history and the nuances of writing history. Thus this course is selective by necessity. The class is basically structured around discussion of the assigned materials, but each session will be introduced by a short lecture.

Instructor(s): M. Tenorio Terms Offered: Spring

Prerequisite(s): Consent of instructor; open only to first-year History graduate students.

HIST 71301. Sem I: An Age of Revolutions in an Early Modern Society: Britain from Reformation to Enlightenment. 100 Units.

This seminar focuses on an early modern society in an age of profound upheaval. During the "long seventeenth century," which ran from the Reformation to the early Enlightenment, the British Isles saw protracted civil conflict, a king put on trial and executed, and (arguably) two political revolutions. In a period distinguished by the lives of figures such as Shakespeare, Milton, Newton, and Locke, major achievements took place in literature, science, and philosophy. Not only did the archipelago coalesce into the one polity of "Great Britain," it also created the origins of a world-spanning empire. We shall explore all these processes by using selected primary and secondary sources. Students will be introduced to key themes and approaches for early modern European history, which they can then apply to the specific periods, places, and subjects that most interest them.

Instructor(s): A. Johns Terms Offered: Autumn

HIST 71302. Sem II: An Age of Revolutions in an Early Modern Society: Britain from Reformation to Enlightenment. 100 Units.

Graduate students write a history seminar paper in winter quarter.

Instructor(s): A. Johns Terms Offered: Winter

Prerequisite(s): HIST 71301

HIST 74605. Sem: Religion, Society, and Politics in Modern Europe, 1740-Present. 100 Units.

A two-quarter research seminar; the first quarter may be taken separately as a colloquium (register for HIST 53003). The longstanding idea of the progressive secularization of modern society—an idea germinated during the Enlightenment and made more explicit by such nineteenth-century social theorists as Comte, Weber, and Durkheim—no longer commands much assent today, though western Europe seems a better instantiation of it than anywhere else. Starting with an examination of the so-called secularization thesis, this seminar will examine such topics as divergent interpretations of the Enlightenment view of religion; the religious impact of the French Revolution; the shifting patterns of religious practice that evolved during the nineteenth century; the role of religiously based, mass political movements in the crisis of the liberal state in the late nineteenth century; the nineteenth-century transformation of religion into an object of scientific study (philology, sociology of religion); Marian apparitions and miraculous cures in the nineteenth century (Lourdes, Marpingen); Jewish emancipation; the European encounter with Islam; and the opposition to organized religion and the churches offered by the Left and the Right, as part of the larger debate about the extent to which (private) corporate norms and values should be able to influence civic life in the modern liberal or modern authoritarian state.

Instructor(s): J. Boyer and J. Goldstein Terms Offered: Autumn

Prerequisite(s): Graduate students only by consent of instructor; students taking the 2-qtr seminar must have reading knowledge of at least one modern European language. Meets with HIST 53003.

HIST 74606. Sem: Religion, Society, and Politics in Mod Euro, 1740-Present. 100 Units.

Students write the seminar paper in the winter quarter.

Instructor(s): J. Boyer and J. Goldstein Terms Offered: Winter

Prerequisite(s): Hist 74605

HIST 77001. Seminar: Modern East Asian History 1. 100 Units.

This is a reading and discussion seminar on modern East Asia, meaning China, Korea, and Japan. We will read one book per week and discuss it in class. Students will be expected to prepare an opening five-minute critique of the week's reading to get our discussions going. PhD students will write a seminar paper. MA students will do either a paper that compares and contrasts four or five (good) books on East Asia, or they will write a paper that deals with some particular problem or conundrum that derives from the readings or our seminar discussions; the second option is not a research paper, but one in which a premium is placed on your ability to think through a problem that appears in the reading or comes out of our discussions. That paper is due on the last day of exam week for those MA students taking the seminar for just the autumn term. In the winter quarter students will present their papers for discussion with the class.

Instructor(s): M. Bradley & B. Cumings Terms Offered: Autumn

Equivalent Course(s): EALC 47001

HIST 77002. Seminar: Modern East Asian History 2. 100 Units.

In the winter quarter students will present their seminar papers for discussion with the class.

Instructor(s): Mark Bradley & B. Cumings Terms Offered: Winter

Prerequisite(s): HIST 77001 or EALC 47001

Equivalent Course(s): EALC 47002

HIST 79101. Seminar: Topics in Latin American History I. 100 Units.

This two-quarter research seminar is devoted to the craft of reading and writing Latin American history. Specific topics will shift from year to year, depending on the instructor. This seminar can be taken either as a two-quarter seminar sequence, which culminates in a winter-quarter research paper, or as a autumn-quarter colloquium.

Instructor(s): D. Borges Terms Offered: Autumn

Equivalent Course(s): LACS 79101, CRES 79101

HIST 79102. Seminar: Topics in Latin American History II. 100 Units.

The second quarter is mainly for graduate students writing a History seminar paper.

Instructor(s): D. Borges Terms Offered: Winter

Prerequisite(s): HIST 79101

Equivalent Course(s): CRES 79102, LACS 79102

HIST 90000. Reading and Research: History Grad. 100 Units.

Independent study with history faculty. Graduate students only.

Instructor(s): Arr. Terms Offered: Autumn Spring Summer Winter

Note(s): Select section from Faculty List.

HIST 90600. Oral Fields Preparation: History. 100 Units.

Independent study with history faculty to prepare for the history PhD oral-fields examination.

Instructor(s): Arr. Terms Offered: Autumn Spring Summer Winter

Note(s): Enter section from faculty list.



COMMITTEE ON INTERNATIONAL RELATIONS

Chair

- Paul Staniland

Professors

- Michael Albertus, Political Science
- Ralph A. Austen (Emeritus), History
- Kathleen Belew, History
- John W. Boyer, History
- Austin Carson, Political Science
- Dipesh Chakrabarty, South Asian Languages and Civilizations, History
- Chiara Cordelli, Political Science
- Terry Clark, Sociology
- Bruce Cumings, History
- Adom Getachew, Political Science
- Tom Ginsberg, Political Science
- Andreas Glaeser, Sociology
- Robert Gulotty, Political Science
- Susan Gzesh, Law
- Gary B. Herrigel, Political Science
- James Hevia, History
- Kimberley Kay Hoang, Sociology
- William Howell, Political Science
- Benjamin Lessing, Political Science
- Darryl Li, Anthropology
- Charles Lipson, Political Science
- Joseph P. Masco, Anthropology
- John J. Mearsheimer, Political Science
- Monika Nalepa, Political Science
- Robert Pape, Political Science
- Jennifer Pitts, Political Science
- Paul Poast, Political Science
- Eric Posner, Law
- Paul Staniland, Political Science
- Nathan Tarcov, Political Science, Social Thought
- Jennifer Trinitapoli, Sociology
- Lisa Wedeen, Political Science
- Dali Yang, Political Science
- Dingxin Zhao, Sociology
- Marvin Zonis, Business

Senior Lecturers

- Michael Reese, International Relations
- Matthias Staisch, International Relations

GENERAL INFORMATION

The Committee on International Relations (CIR) offers a one year program of graduate studies leading to the A.M. (Master of Arts) degree; admitted students may apply for a one-year extension during their first year of study to allow for further specialization. CIR makes the resources of a great university available to students seeking a firm grounding in the theory and practice of international relations. An A.M. from CIR will prepare students for a wide range of careers for which the masters is increasingly the entry level degree, as well as for further academic or professional training in political science, law, and business administration. Students interested in combining a CIR A.M. with an M.B.A. can apply to a joint degree program with the University of Chicago Booth School of Business. A dual A.M./M.A. degree with the Harris School of Public Policy or an A.M. / J.D. with the University of Chicago Law School is also available.

CIR provides students with a vibrant intellectual community and core course training in international relations theory. CIR's interdisciplinary faculty and curriculum encourage students to explore a wide range of topics spanning the economic, political, security and social factors shaping international life. Students will learn to craft critical and creative responses to the challenges of the present, including globalization, terrorism, and human rights. Throughout the academic year, each student works closely with an assigned preceptor on all aspects of the program, from selecting courses to designing and writing the master's paper.

CIR offers dedicated counseling and application support to students pursuing further academic study in doctoral or professional school programs. CIR graduates have received and presently pursue doctorates in Political Science as well as degrees in the various professional schools, including law and business administration, at both the University of Chicago and other major research institutions in the U.S. and abroad. An international network of CIR alumni, in concert with the University's office of Career Counseling and Placement Services, assists current students in identifying career possibilities and applying for positions.

PRECEPTORS

Students work closely with one of the preceptors in the CIR. Preceptors guide students in defining their areas of academic specialization as well as in choosing courses. Preceptors also assist students in selecting faculty sponsors for their A.M. papers and take an active role in guiding and evaluating the research and writing of these papers.

PROGRAMS AND REQUIREMENTS

Students pursuing the Committee on International Relations' Master of Arts degree are expected to complete nine graduate level courses with a minimum GPA of 3.0 and a thirty-five to fifty page master's thesis that must be approved by both a faculty sponsor and a CIR preceptor. In addition, students must successfully complete the introductory seminar *Perspectives in International Relations* (offered in the Autumn Quarter) and participate in the master's thesis workshop throughout the academic year. Master's workshops are led by CIR preceptors and give students the opportunity to present and discuss their research projects as they develop from proposal to final draft.

Students may apply for a second year of study A.M. with specialization. This second year requires an additional three quarters of residence during which the student takes an additional nine courses. Students apply for the second year with specialization during their first year in residence.

The joint degree program with the Chicago Booth School of Business is administered through the Division of the Social Sciences. Students pursuing a joint degree must fulfill all the requirements of the CIR degree in addition to the requirements of the respective professional degree, though there are some exceptions. Students enrolled in the dual J.D. /A.M. program with the Law School take nine courses in their fourth year of study, three of which are typically law-school courses and the remaining six from the CIR list of approved courses. Students enrolled in the joint M.B.A./A.M. take a reduced course load of 14 courses in the Booth School of Business and the full nine courses in CIR. Students interested in the dual A.M./M.A. degree program should contact the Harris School of Public Policy for more information.

ADMISSION

Applicants to the Committee on International Relations are expected to meet the graduate admissions requirements of the division. Submission of Graduate Record Examination (GRE) scores is required, except for the joint CIR and Booth School of Business degree program, where the Graduate Management Admission Test (GMAT) is accepted. Applicants from non-English speaking countries must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

CIR is designed to be completed in one academic year (three or four quarters on a full time basis). All financial aid is merit based, and the CIR program offers partial tuition scholarships on a highly competitive basis.

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <https://apply-ssd.uchicago.edu/apply/>. Most required supplemental material can be uploaded into the application.

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

Applicants interested in the dual J.D./A.M. program must apply separately to both the Law School (1111 East 60th Street, Chicago, IL 60637) and the Committee on International Relations. Applicants interested in the joint M.B.A./A.M. program must submit their application to The University of Chicago Booth School of Business, which then refers the application to CIR. Please contact the Harris School of Public Policy regarding the application procedure for the dual A.M./M.A. degree.

FURTHER INFORMATION

Additional program information may be found at the Committee's website, <http://cir.uchicago.edu/>. You can contact the CIR preceptors at (773) 702-8073, and E.G. Enbar, Student Affairs Administrator, at (773) 702-8312 or egenbar@uchicago.edu.

INTERNATIONAL RELATIONS COURSES

INRE 30000. Perspectives on International Relations. 000 Units.

This required, non-credit course is designed to introduce students to the craft of research in International Relations. For the first half of Autumn quarter, the full cohort will meet for lectures on two central themes: (i) the fundamental aspects of conducting research in the social sciences, and, specifically, in International Relations; and (ii) preparation of the MA thesis proposal. Then, the three preceptor student groups will meet for workshops over the latter half of the quarter. The purpose of the workshops is to give each student the opportunity to present his or her proposal draft.

Instructor(s): Paul Staniland Terms Offered: Autumn

Note(s): Open only to CIR students.

INRE 30600. Constructing a Society of Human Rights: A Psychological Framework. 100 Units.

This course is designed to discuss the ways that cultural and social psychology contribute to understandings about human rights conceptually, and how human rights issues emerge from social dynamics. Over the course of the quarter, students will learn about theories on intergroup conflict and prejudice, how an individual's beliefs emerge from social contexts and shape their relationships with others, how obedience to authority is created and abused, and how social positioning and narratives influence conceptions of self and other. We will also discuss the relevance and impact of psychological study and data on human rights issues.

Equivalent Course(s): CHDV 25220, PBPL 25220, HMRT 25220

INRE 31602. Human Rights: Philosophical Foundations. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 21002, PHIL 31002, PHIL 21002, HIST 29319, LLSO 21002, HIST 39319, MAPH 42002, HMRT 31002

INRE 31700. Human Rights II: History and Theory. 100 Units.

This course is concerned with the theory and the historical evolution of the modern human rights regime. It discusses the emergence of a modern "human rights" culture as a product of the formation and expansion of the system of nation-states and the concurrent rise of value-driven social mobilizations. It proceeds to discuss human rights in two prevailing modalities. First, it explores rights as protection of the body and personhood and the modern, Western notion of individualism. Second, it inquires into rights as they affect groups (e.g., ethnicities and, potentially, transnational corporations) or states.

Instructor(s): TBA Terms Offered: Winter

Equivalent Course(s): HMRT 30200, HMRT 20200, HIST 29302, CRES 29302, HIST 39302, LLSO 27100

INRE 32100. Civil-Military Relations and the Politics of Militaries. 100 Units.

How do we define a military? What is a military's purpose? How have militaries around the world embedded themselves into the social and institutional fabric of the state? How do military leaders act compared to their civilian counterparts when placed in similar political roles? This seminar will help students answer the aforementioned questions by introducing them to the literature on civil-military relations. The general structure of the class readings will focus on two primary themes. The first half of the course will introduce students to long-standing debates over the role of politicization in military organizations and whether such trends are desirable or not. The latter half of the class will focus on research that analyzes the militarization of politics and how such trends might subvert traditional notions of the military profession. This course is intended for CIR students and all course assignments will be structured around helping students complete the writing of their MA theses. Non-CIR students should contact the instructor directly about taking the class.

Instructor(s): Kevin Weng Terms Offered: Winter

Note(s): CIR students only.

INRE 34600. Case Study Methods. 100 Units.

How do social scientists utilize case studies as a method for identifying causal relationships? What are the epistemological assumptions that underlie the use of case studies? How similar or different are these assumptions from those of large-N and other quantitative methodologies? This seminar will help students address the aforementioned questions by introducing them to ongoing methodological debates within the social sciences surrounding the use of case studies. Students will be exposed to readings and discussions on case selection, selection bias, conceptualization and measurement issues, historical process tracing, data transparency, and external validity. This course is intended for CIR students and all course assignments will be structured around helping students complete the writing of their MA theses. Non-CIR students should contact the instructor directly about taking the class.

Instructor(s): Kevin Weng Terms Offered: Winter

Note(s): CIR students only!

INRE 34700. Academic Presentation in International Relations & Thesis Preparation. 100 Units.

This class will provide instruction in the norms of publicly presenting one's research in front of an academic audience. Using examples drawn from the literature on International Relations and Comparative Politics, students will learn about the typical practices of structuring a research project for academic consumption. Specific topics will include: addressing alternative hypotheses, formulating a literature review, addressing missing data issues and selection bias, formulating an empirical puzzle, tenets of constructive criticism, etc. In the latter half of the course, students will present their own work-in-progress research to the class body where they will be expected to utilize the lessons from previous sessions. CIR & MAPSS students who wish to complete their MA theses by Spring or Summer deadlines are particularly encouraged to apply.

Instructor(s): K. Weng Terms Offered: Spring

INRE 34800. Historical Processes of State Formation. 100 Units.

How did states come into being? How do we assess "state-ness" or the "strength" of state institutions? Why did nation-states become the primary actor in the international system instead of alternative forms of political organization such as empires, city-states, or city-leagues? What explains variations in the institutional makeup of states? This course helps students formulate an initial set of answers to the previous set of questions by providing an overview of the state-formation literature. Specifically, the class will cover theories that address how states come into being, organize their societies, extract resources, and structure their political institutions. Course readings will initially start with an introduction to varying conceptualizations of the state before moving onto a discussion of how to operationalize and measure degrees of "state-ness". The remaining course readings will explore themes surrounding war, colonialism, civil society, taxation, economic development, & (ultimately) state breakdown.

Instructor(s): K. Weng Terms Offered: Winter

INRE 36001. Society, Politics and Security in Israel. 100 Units.

This graduate course examines Israel's unique DNA through a thorough examination of its history, society, politics and security challenges. We shall explore these traits as manifested in the defining chapters of Israel's history, since the early stages of the Zionist driven immigration of Jews to the Holy Land, through the establishment of the Jewish State in 1948, until present time. Students will work with primary sources, diverse theoretical perspectives, and rich historiographical material to better understand the Israeli experience, through domestic, regional and international perspectives. Particular attention will be given to the emergence of the Israeli vibrant society and functioning democracy in the background of continuous conflict and wars. The course will explore topics such as: How Israel reconciles between the imperatives and narratives of democracy and Jewishness, between collective ethos and heterogeneous tribalism, and between protracted security challenges and resilience. We will also discuss the multifaceted aspects of the changing Israeli security doctrine and practice, in light of regional threats and international involvement.

Instructor(s): M. Elran Terms Offered: Autumn

Equivalent Course(s): PBPL 28139, JWSC 28139

INRE 36002. Security, Counter Terrorism and Resilience, The Israeli Case. 100 Units.

This course will examine how Western liberal democracies respond to the threat of terrorism and sub-conventional "hybrid" warfare, with a specific focus on the case of Israel. The goal of the course is to develop a critical perspective on the nature of the contemporary security challenges facing democracies, how these threats are understood by domestic audiences, and the role of internal politics in shaping responses at the national and community levels. Empirically, the course covers the developments of Israeli security strategy and practice from the period before the establishment of the state in 1948 to the present -- with particular attention given to the role of evolving conventional, sub-conventional and non-conventional threats. The course will broadly address complex topics such as protracted terrorism of diverse kinds, counter terrorism by different means, and the emerging role of the doctrine of resilience as an alternative paradigm for defending against contemporary hybrid security risks. Throughout the course, students will critically engage with primary sources, diverse theoretical views, and rich historical material representing a wide variety of scholarly, intellectual, and policy perspectives.

Instructor(s): Meir Elran Terms Offered: Winter

Equivalent Course(s): PBPL 26020

INRE 43000. Core Seminar: International Order and Security. 100 Units.

This seminar is a graduate-level survey of international order and security, covering two general areas of scholarship: (1) theories of international order and instability and (2) strategic interaction approaches to international security. The first half of the seminar is devoted to several current approaches to the problem of international (dis)order. Students will be introduced to the dominant theoretical perspectives -- realism, liberalism, and constructivism -- and their competing approaches to international order at various levels of analysis. The second half of the seminar explores theories of strategic interaction regarding the likelihood of war and the maintenance of peace. The concepts of coercion, deterrence, compellence, and reassurance will be discussed at the "general" strategic level; whereas crisis bargaining will be introduced at the "immediate" tactical level. The ultimate goal of the seminar is to provide students with a solid theoretical foundation for future explorations of academic and policy questions of special interest to them.

Instructor(s): M. Reese Terms Offered: Autumn, Winter

Note(s): Open only to CIR students

INRE 43800. Core Seminar: International Political Economy. 100 Units.

This seminar is a graduate-level survey of international political economy (IPE). It addresses three prominent questions: (1) How do governments coordinate to regulate the cross-border flow of goods, services, and capital? In particular, what are the relative merits of relying on decentralized, or market-based institutions, as opposed to centralized, or state-based ones, for doing so? (2) What are the distributional implications of these coordinating devices? Specifically, what kind of cleavages constitute the distributional struggles that characterize today's global economy? (3) Why are the systems of international exchange prone to periodic crisis, and how do governments seek to restore stability, and insure against future volatility? By the end of this part of the core sequence, students will be able to (1) critically evaluate competing (empirical) measurements of the key concepts which constitute theoretical propositions in IPE; and (2) craft a research design that adequately matches a theoretical claim in IPE with relevant empirical data.

Instructor(s): M. Staisch Terms Offered: Autumn, Winter

Note(s): Open only to CIR students

INRE 44802. Network Theory for International Political Economy. 100 Units.

This course introduces students to the ongoing network turn in international political economy (IPE). It has three goals. First, students will replace purely metaphorical (and vague) talk of networks with focused propositions about the network properties and dynamics of contemporary phenomena such as international hierarchy, regional fragmentation amidst global integration, and the fate of sovereign territoriality in an age of (violent) transnational activism. Second, students will ponder competing explanations of the network turn in IPE: have IPE scholars abandoned conventional analytical tools in favor of network theory, because the conventional toolkit already came with rudimentary network-theoretic devices that simply needed sharpening; or did some changes in the real international economy prompt the shift? Finally, students will critically assess the ability of SNT to be a vehicle for innovative social science. They will do this, in part, by devising a research proposal of their own that assesses the validity and utility of testing a single network-theoretic proposition against some conventional competitor.

Instructor(s): M. Staisch Terms Offered: Spring

Equivalent Course(s): PLSC 44801

INRE 46500. MA Thesis Workshop. 000 Units.

This required, non-credit course is designed to continue the preceptor-group collaboration established in Autumn's Perspectives (INRE 30000). The purpose of the workshop is to give each student the opportunity to present his or her thesis research as it develops during their first year in the CIR program. Must be taken in each of Winter and Spring quarters.

INRE 49700. Reading/Research: International Relations. 100 Units.

This course allows students the opportunity to receive course-credit for their thesis research. It may only be taken once.

Instructor(s): P. Staniland Terms Offered: Autumn Spring Winter

Prerequisite(s): Open only to 1st year CIR students



DEPARTMENT OF POLITICAL SCIENCE

Chair

- William Howell

Professors

- John J. Brehm
- Cathy Cohen
- Michael Dawson
- John Mark Hansen
- Gary Herrigel
- William Howell, Public Policy
- John McCormick
- John J. Mearsheimer
- J. Eric Oliver
- John F. Padgett
- Robert Pape
- Jennifer Pitts, Social Thought
- Susan Stokes
- Nathan Tarcov, Social Thought
- Lisa Wedeen
- Dali Yang
- Linda Zerilli

Associate Professors

- Michael Albertus
- Sankar Muthu
- Monika Nalepa
- Paul Poast
- Gerald N. Rosenberg
- Paul Staniland

Assistant Professors

- Ruth Bloch Rubin
- Austin Carson
- Chiara Cordelli
- Adom Getachew
- Robert Gulotty
- Demetra Kasimis
- Matthew Landauer
- Benjamin Lessing
- Zhaotian Luo
- Andrew McCall
- Patricia Posey
- Rochelle Terman
- James Wilson

Emeritus Faculty

- Leonard Binder
- Charles Lipson
- William Sewell
- Duncan Snidal
- Ronald Suny

Associate Members

- Daniel Abebe
- Scott Ashworth
- Christopher Berry
- Christopher Blattman
- Evelyn Z. Brodtkin
- Ethan Bueno de Mesquita
- Elisabeth Clemens
- Daniel Diermeier
- Oeindrila Dube
- Anthony Fowler
- Thomas Ginsburg
- Roger Myerson
- Martha Nussbaum
- James Robinson

The Department of Political Science offers a course of study leading to the PhD degree. A departmental faculty committee makes admission decisions based on an assessment of all the material required in the University application: biographical data, statement of interests and goals in graduate school, transcripts of grades, letters of recommendation, Graduate Record Examination scores, and a writing sample. Committee members want to know what applicants find intellectually exciting and why applicants want to study at the University of Chicago.

The department is committed to training doctoral students in political science, broadly conceived. Our department has a long history of defining some of the most enduring empirical and theoretical debates within political science. We further believe that the best work in political science often crosses subfields and disciplines. Our aim is to help students develop and pursue their intellectual interests while grounding them in the various approaches and methodologies that characterize the modern discipline. Program requirements include a mix of research papers, coursework, and exams so that students can achieve these goals as they proceed expeditiously towards the PhD degree.

THE GRADUATE PROGRAM

Students must complete sixteen courses for quality grades by the end of the second year. Twelve of the sixteen courses must be courses taught by Department faculty, which includes visiting and associate members. In the first year, students should plan on completing a total of nine courses for quality grades. In the second year, students should plan on completing at least seven courses for quality grades. PLSC 50000 Dissertation Proposal Seminar (offered in the Winter Quarter) is required of third year students and does not count as one of the sixteen required courses.

The Department strongly recommends that all graduate students acquire the skill set necessary for successful progress as producers of research within the first two years of coursework. The notion of a skill set will vary with the specific research interests of the students. Students are expected to discuss with their advisors the skill set they will need, and together they will agree on a program of study. The normal expectation for first-year quantitatively-oriented graduate students will include courses on matrix algebra, programming, linear models, and causal identification. Such students also regularly take courses in social choice and game theory. For those students who intend to pursue political theory and qualitative research, the skill set is less established but may entail language training, ethnography training, interpretive methods, archival research, or other methodological courses.

The Department currently offers comprehensive exams in six fields: Theory, American Politics, Comparative Politics, International Relations, Quantitative Methods, and Formal Theory.

Course prerequisites for comprehensive exams typically include either a field seminar that is offered no less than once every other year or a sequence or collection of courses that are offered over two years. All fields provide the materials students should master in order to be considered "certified" in that area. The Department offers exams during the month of June each year. Some students—such as those entering the program with prior graduate work in political science or who complete the necessary prerequisites for an exam in their first year of study—may take one comprehensive exam after the first year and the second exam at the end of the second year. All other students will take both exams at the end of the second year.

The MA thesis offers an early opportunity for students to undertake a substantial work of independent research and advances a number of objectives, some substantive, others more procedural. The MA thesis can offer an opportunity to launch dissertation research, to secure a publication in a professional journal, to test the viability of an idea or topic that might possibly lead to a dissertation, or to conduct work in an area students know will not be part of the dissertation but that they would like to investigate more deeply than is possible in coursework. The MA thesis gives students the experience of independent research at a manageable scale, before developing a full-fledged dissertation topic. The thesis also can help students to gain a sense of how the germ of

an idea becomes an article-length piece of writing (through literature review, the IRB process, operationalization of a question, elaboration of a distinctive argument in relation to existing literature, etc.).

Students are encouraged to begin thinking about their MA thesis in the context of their courses, and to consider seminar papers as bases for an MA thesis. Students also may choose to enroll in PLSC 40100 Thesis Preparation with their main thesis advisor. Students may take up to two units of Thesis Preparation to count toward the sixteen required courses. The final draft of the MA paper is due no later than November 15 of the third year, though in consultation with advisors students may choose to submit the MA well in advance of this deadline.

Students who have prior graduate work may use as many as five graduate courses completed at other universities to count towards fulfillment of the department's course requirement. Graduate courses previously completed within our department will count on a one-to-one basis towards the fulfillment of the department's course requirement. Students may not use an MA thesis written elsewhere as a substitute for the MA thesis here. The only exception is MA theses written at the University of Chicago, where one of the faculty advisors is in the Department. Students may use a prior MA thesis as the basis for the MA thesis with the consent of faculty advisors, following the above deadlines.

Practical pedagogical experience is a program requirement. To satisfy the requirement, students can serve as teaching assistants in undergraduate lecture courses and in the department's methodology sequence. A few advanced graduate students, selected as Grodzins Prize Lecturers, offer their own undergraduate courses. There are also opportunities to serve as teaching interns and instructors in the College's undergraduate core curriculum and as preceptors who assist the undergraduate majors with the writing of BA papers.

After completing courses and exams, students turn to the PhD dissertation. The first step is a dissertation proposal that briefly outlines the research question, significance, argument, and method of the dissertation. PLSC 50000 The Dissertation Proposal Seminar, required in the winter quarter of the third year, is a weekly seminar devoted solely to the presentation and collective discussion of several drafts of each student's dissertation proposal. The proposal must be approved by a committee of three faculty who agree to supervise the dissertation research and present the proposal for departmental approval. The deadline for this approval is June 1 of the third year.

Although advanced graduate research and writing is often a solitary enterprise, students in the department also typically continue to participate in one or more workshops, which are mainly devoted to students' presentation of research in progress for discussion and constructive criticism. Political science students participate in workshops devoted to American Politics, Comparative Politics, East Asia, Political Economy, Political Psychology, Political Theory, International Relations, and International Security Policy, to name just a few. There are many other interdisciplinary workshops throughout the University ranging from Law and Economics, to Gender and Sexuality, to Russian Studies, all of which are open to political science students.

Upon receiving final approval of the dissertation by the members of the dissertation committee, the candidate gives a formal presentation based on the dissertation. Following the presentation, which is open to the public, the candidate is questioned by an examining committee of at least three faculty members.

For more information about current faculty, students, requirements, and courses, consult the department webpage at <http://political-science.uchicago.edu/>.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at: <https://apply-ssd.uchicago.edu/apply/>.

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

POLITICAL SCIENCE COURSES FOR 2019-20

PLSC 30102. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverse-probability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for cross-section and panel data, and fixed effects model. Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005 is a prerequisite. This course is a prerequisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong, K. Yamaguchi Terms Offered: Winter

Prerequisite(s): Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005

Note(s): CHDV Distribution: M; M

Equivalent Course(s): SOCI 30315, PBHS 43201, CHDV 30102, STAT 31900, CHDV 20102, MACS 51000

PLSC 30301. American Politics Field Seminar I. 100 Units.

A survey of some of the main themes, topics and approaches in the study of American politics and government.

Instructor(s): E. Oliver Terms Offered: Autumn

PLSC 30401. American Politics Field Seminar II. 100 Units.

A survey of some of the main themes, topics and approaches in the study of American politics and government.

Instructor(s): C. Cohen, W. Howell Terms Offered: Winter

PLSC 30700. Introduction to Linear Models. 100 Units.

This course will provide an introduction to the linear model, the dominant form of statistical inference in the social sciences. The goals of the course are to teach students the statistical methods needed to pursue independent large-n research projects and to develop the skills necessary to pursue further methods training in the social sciences. Part I of the course reviews the simple linear model (as seen in STAT 22000 or its equivalent) with attention to the theory of statistical inference and the derivation of estimators. Basic calculus and linear algebra will be introduced. Part II extends the linear model to the multivariate case. Emphasis will be placed on model selection and specification. Part III examines the consequences of data that is "poorly behaved" and how to cope with the problem. Depending on time, Part IV will introduce special topics like systems of simultaneous equations, logit and probit models, time-series methods, etc. Little prior knowledge of math or statistics is expected, but students are expected to work hard to develop the tools introduced in class.

Instructor(s): J. Hansen Terms Offered: Winter

PLSC 30901. Game Theory I. 100 Units.

This course introduces students to games of complete information through solving problem sets. We will cover the concepts of dominant strategies, rationalizable strategies, Nash equilibrium, subgame perfection, backward induction, and imperfect information. The course will be centered around several applications of game theory to politics: electoral competition, agenda control, lobbying, voting in legislatures and coalition games.

Instructor(s): Z. Luo Terms Offered: Winter

Prerequisite(s): PLSC 40801 Social Choice Theory and PLSC 43401 Mathematical Foundations of Political Methodology or consent of instructor

Equivalent Course(s): PLSC 29102

PLSC 31000. Game Theory II. 100 Units.

This course introduces students to games of incomplete information and several advanced topics through solving problem sets. We will cover the concepts of Bayes Nash equilibrium, perfect Bayesian equilibrium, and the basics of mechanism design and information design. In terms of applications, the course will extend the topics examined in the prerequisite, PLSC 30901. Game Theory I to allow for incomplete information, with a focus on the competing challenges of moral hazard and adverse selection in those settings.

Instructor(s): Z. Luo Terms Offered: Spring

Prerequisite(s): PLSC 30901 or equivalent and consent of instructor.

Equivalent Course(s): PLSC 29103

PLSC 31101. Computational Tools for Social Science. 100 Units.

The purpose of this course is to provide graduate students with the critical technical skills necessary to conduct research in quantitative / computational social science. This course is not an introduction to statistics, computer science, or specialized social science methods. Rather, the focus will be on practical skills necessary to be successful in further methods work. The first portion of the class introduces students to basic computer literacy, terminologies, and programming languages, covering Bash, R, and Git. The second part of the course provides students the opportunity to use the skills they learned in part 1 towards practical applications such as webscraping, data collection through APIs, automated text analysis, etc. We will assume no prior experience with programming or computer science.

Instructor(s): R. Terman Terms Offered: Autumn

PLSC 31410. Advanced Theories of Gender and Sexuality. 100 Units.

This interdisciplinary seminar-style course will focus on debates within contemporary queer and feminist theory, but the implications impact beyond concepts, with implications for building worlds. We will begin by engaging diverging genealogies of the study of sexual identity, focusing on those developed from within affect theory and theories of performativity. The second half of the quarter will focus on varieties of precarity, examined within their social and political constellations. Generally, our aim will be to engage scenes and concepts central to the interdisciplinary study of gender and sexuality; to provide familiarity with key theoretical anchors for that study; to provide skills for deriving the theoretical bases of any kind of method; to examine inconvenient cases; to question our obligations to the "classics" of gender and sexuality theory; and to explore innovative pedagogies. In addition, aesthetic objects will be brought into contact with theoretical works, such as those by Gayle Rubin, Hortense Spillers, Gayatri Spivak, Paul B. Preciado, Mel Chen, Eve Sedgwick, Judith Butler, and Saidiya Hartman.

Instructor(s): Lauren Berlant Terms Offered: Winter

Equivalent Course(s): ENGL 30201, GNSE 21400, MAPH 36500, ENGL 21401, PLSC 21410

PLSC 31700. Foundations of Human Rights. 100 Units.

This seminar will provide graduate students with an advanced introduction to the study of human rights, covering key debates in history, law, philosophy, political science, international relations, social science, and critical theory. As a graduate seminar, this will be a small class (capped at 20 students), and a strong emphasis will be placed on in-class discussion and debate. The course will examine cutting-edge research on topics including: the origins of human rights (Section I); the concept of human dignity (Section II); the nature and grounds of human rights (Section III); the relationship between human rights morality and law (Section IV); the legality and morality of humanitarian intervention (Section V); the feasibility and claimability of human rights (Section VI); contemporary criticisms of human rights (Section VII); human rights and the accommodation of diversity (Section VIII); and the future of human rights (Section IX).

Instructor(s): P. O'Donnell Terms Offered: Autumn 2015

Note(s): Graduate students only

Equivalent Course(s): HIST 39420, HMRT 30600

PLSC 32740. Order and Violence. 100 Units.

Most countries in the world have been independent for about 50 years. Some are peaceful and have prospered, while some remain poor, war-torn, or both. What explains why some countries have succeeded while others remain poor, violent, and unequal? Moreover, fifty years on, a lot of smart people are genuinely surprised that these countries' leaders have not been able to make more progress in implementing good policies. If there are good examples to follow, why haven't more countries followed these examples into peace and prosperity? Finally, we see poverty and violence despite 50 years of outside intervention. Shouldn't foreign aid, democracy promotion, peacekeeping, and maybe even military intervention have promoted order and growth? If not why not, and what should we do about it as citizens? This class is going to try to demystify what's going on. There are good explanations for violence and disorder. There are some good reasons leaders don't make headway, bureaucrats seem slothful, and programs get perverted. The idea is to talk about the political, economic, and natural logics that lead to function and dysfunction.

Instructor(s): Blattman, C Terms Offered: Spring

Equivalent Course(s): PPHA 32740

PLSC 33901. Xenophon on Leadership. 100 Units.

In this seminar we will read Freud's major writings about society, religion, politics, and culture. We will then examine texts by writers who follow Freud's lead in their own social, cultural, and political analysis, among them, Theodor Adorno, Norman O. Brown, Julia Kristeva, and Slavoj Zizek.

Instructor(s): Eric Santner Terms Offered: Spring

Equivalent Course(s): SCTH 31714, FNLD 21717

PLSC 33930. The Federalist Papers and Anti-Federalist Writings. 100 Units.

This course examines the debate over the ratification of the Constitution through a reading of The Federalist Papers and selected Anti-Federalist writings as works of continuing relevance to current practical and theoretical debates. Issues include war and peace, interests and the problem of faction, commerce, justice and the common good as ends of government, human nature, federalism, republican government, representation, separation of powers, executive power, the need for energy and stability, the need for a bill of rights, and constitutionalism.

Instructor(s): Nathan Tarcov Terms Offered: Winter

Prerequisite(s): Open to undergrads

Equivalent Course(s): SCTH 31715, FNLD 21719, PLSC 23901, LLSO 23901

PLSC 34799. Same-Sex Sexuality: History, Philosophy, and Law. 100 Units.

This new course examines two important historical periods in Western thought during which same-sex conduct and attraction were extensively debated, both politically and philosophically: ancient Greece and Rome, and Victorian and post-Victorian Britain. We will examine the evidence for ancient Greek and Roman attitudes and practices and the normative arguments of the philosophers, especially Plato and the Greek Stoics. Then we leap forward to Victorian Britain, where a newly honest reading of the Greek evidence provided gay men with a rallying point against Christian laws (female same-sex acts were never illegal in Britain), and philosopher Jeremy Bentham provided eloquent arguments for the decriminalization of same-sex acts (fully published only in 2013). We then pause to study a literature that questions whether sexual orientation is a timeless category or a cultural artifact, and a related debate about alleged biological accounts of same-sex desire. Then we move on to the Wolfenden Commission Report of 1957 that recommended the decriminalization of same-sex acts in Britain (with the case of Alan Turing as a central example of what troubled the reformers), along with the related legal-philosophical debate between H. L. A. Hart and Lord Devlin debate (and its roots in the earlier debate about liberty between J. S. Mill and Fitzjames Stephen).

Instructor(s): M. Nussbaum Terms Offered: Spring

Prerequisite(s): Undergraduates may enroll only with the permission of the instructor. Graduate students (Ph.D. and MA) do not need permission. Assessment is by an 8 hour take home final exam, although Ph.D. students and law students may select a paper option.

Equivalent Course(s): PHIL 24799, CLCV 24719, PHIL 34799, CLAS 34719, RETH 34799, PLSC 24799, GNSE 24799, GNSE 34799

PLSC 35101. Three Erotic Dialogues: Plato, Xenophon, Plutarch. 100 Units.

An exploration of the moral, political, psychological, theological, and philosophical significance of erotic phenomena through reading three classical dialogues on eros: Plato's Symposium, Xenophon's Symposium, and Plutarch's Erotikus. (A)

Instructor(s): N. Tarcov Terms Offered: Winter

Equivalent Course(s): GNSE 26103, FNLD 21207, SCTH 34801, GNSE 36103, PLSC 25101

PLSC 35215. The American Presidency. 100 Units.

This course examines the institution of the American presidency. It surveys the foundations of presidential power, both as the Founders conceived it, and as it is practiced in the modern era. This course also traces the historical development of the institutional presidency, the president's relationships with Congress and the courts, the influence presidents wield in domestic and foreign policymaking, and the ways in which presidents make decisions in a system of separated powers.

Instructor(s): W. Howell Terms Offered: Spring

Equivalent Course(s): AMER 25215, PLSC 25215, LLSO 25215, PBPL 25216

PLSC 35395. American Political Culture. 100 Units.

What are the values and beliefs that organize American politics? In this seminar, we'll answer this question looking at both historical works of American political and contemporary studies of mass attitudes. Particular attention will be paid to American "exceptionalism," the role of class, race, and religion, and the impact of media.

Instructor(s): E. Oliver Terms Offered: Winter

PLSC 35818. Stoic Ethics Through Roman Eyes. 100 Units.

The major ideas of the Stoic school about virtue, appropriate action, emotion, and how to live in harmony with the rational structure of the universe are preserved in Greek only in fragmentary texts and incomplete summaries. But the Roman philosophers give us much more, and we will study closely a group of key texts from Cicero and Seneca, including Cicero's *De Finibus* book III, his *Tusculan Disputations* book IV, a group of Seneca's letters, and, finally, a short extract from Cicero's *De Officiis*, to get a sense of Stoic political thought. For fun we will also read a few letters of Cicero's where he makes it clear that he is unable to follow the Stoics in the crises of his own life. We will try to understand why Stoicism had such deep and wide influence at Rome, influencing statesmen, poets, and many others, and becoming so to speak the religion of the Roman world. (A)

Instructor(s): M. Nussbaum Terms Offered: Winter

Prerequisite(s): Ability to read the material in Latin at a sufficiently high level, usually about two-three years at the college level. Assignment will usually be about 8 Oxford Classical Text pages per week, and in-class translation will be the norm.

Equivalent Course(s): PLSC 25818, PHIL 25818, RETH 35818, PHIL 35818, CLCV 25818, CLAS 35818

PLSC 36100. Civil War. 100 Units.

Civil war is the dominant form of political violence in the contemporary world. This graduate seminar will introduce students to cutting edge scholarly work and to the task of carrying out research on internal conflict. We will study the origins, dynamics, and termination of civil wars, as well as international interventions, post-conflict legacies, and policy responses to war. A variety of research approaches will be explored, including qualitative, quantitative, and interpretive methods, micro- and macro-level levels of analysis, and sub- and cross-national comparative designs. Our emphasis throughout will be on designing rigorous research that persuasively addresses important questions.

Instructor(s): P. Staniland Terms Offered: Winter

PLSC 36405. Becoming a Global Power: The American Experience. 100 Units.

This course invites advanced undergraduates and M.A. students to explore America's rise to great power status and its embrace of a global military role. We focus on two main topics in the post-World War II era. First, how did the U.S. approach the practical side of building and maintaining an infrastructure for global military power projection? In answering this we will learn about the complex, evolving, and often obscure arrangements necessary for the U.S. to forward deploy military power in Western Europe, East Asia, and the Middle East. Second, how did the embrace of a global military role change American politics, society, and law back home? Here we will analyze everything from changes in domestic transportation infrastructure to legal rulings about crimes on military bases to social effects of troops returning home from abroad. The course features an interdisciplinary set of readings from International Relations scholars, historians, critical geographers, anthropologists, and specialists in American Political Development. Students will also get experience analyzing original primary materials via a set of assigned case studies. A recurring interest will be exploring how a uniquely American view of itself affected the methods it used to create a global military infrastructure, and the impact of a global military role on American ideology and identity. Grades will be based on short writing assignments, a midterm exam, and a take-home essay final exam.

Instructor(s): A. Carson Terms Offered: Autumn

Equivalent Course(s): PLSC 26405

PLSC 37000. Law and Politics: U.S. Courts as Political Institutions. 100 Units.

The purpose of this seminar is two-fold. First, the seminar aims to introduce students to the political science literature on courts understood as political institutions. In examining foundational parts of this literature, the seminar will focus on the relationship between the courts and other political institutions. The sorts of questions to be asked include: Are there interests that courts are particularly prone to support? What factors influence judicial decision-making? What effect does congressional or executive action have on court decisions? What is the relationship between courts and public opinion? What impact do court decisions have? While the answers will not always be clear, students should complete the seminar with an awareness of and sensitivity to the political nature of the American legal system. Second, by critically assessing approaches to the study of the courts, the seminar seeks to highlight intelligent and sound approaches to the study of political institutions. Particular concern will focus on what assumptions students of courts have made, how evidence has been integrated into their studies, and what a good research design looks like.

Instructor(s): G. Rosenberg Terms Offered: Autumn

Prerequisite(s): To be considered for admission to this seminar, you must watch the 17 minute video and then, if interested, contact Professor Rosenberg. https://www.youtube.com/watch?v=B2SNLd_wUEQ

PLSC 37301. Weimar Political Theology: Schmitt and Strauss. 100 Units.

This course is devoted to the idea of "political theology" that developed during the interwar period in twentieth-century Central Europe, specifically Germany's Weimar Republic. The course's agenda is set by Carl Schmitt, who claimed that both serious intellectual endeavors and political authority require extra-rational and transcendent foundations. Along with Schmitt's works from the period, such as *Political Theology* and *The Concept of the Political*, we read and discuss the related writings of perhaps his greatest interlocutor, Leo Strauss.

Instructor(s): J. McCormick Terms Offered: Winter

Prerequisite(s): Consent of instructor.

Equivalent Course(s): PLSC 27301, FNLD 27301

PLSC 37318. Friedrich Nietzsche's Twilight of Idols. 100 Units.

Course Description unavailable.

Equivalent Course(s): GRMN 37316, FNLD 27318, PHIL 34713, GRMN 27316, SCTH 37318, PHIL 24713

PLSC 37320. Leo Strauss on the Philosophic Life. 100 Units.

No philosopher before Leo Strauss stressed with similar emphasis that philosophy has to be conceived not as a discipline or a set of doctrines but as a way of life, and few have so sharply grasped the philosophic life and separated it from edifying trivializations or pious appropriations as Strauss did in the very same essay in which he introduced the concept for the first time: "The Law of Reason in the Kuzari." The seminar will focus on this text, which seems to deal with a rather remote historical subject. Originally published in 1943, it is one of Strauss's most intransigent essays. I shall also discuss "On Classical Political Philosophy" (1945), "The Spirit of Sparta or the Taste of Xenophon" (1939), and "Farabi's Plato" (1945).

Equivalent Course(s): FNLD 27320, SCTH 37320, PHIL 37320

PLSC 37321. Leo Strauss: Natural Right and History. 100 Units.

I shall present a new reading of NATURAL RIGHT AND HISTORY, focusing on the first 4 chapters, discussing the philosophical intention and the political impact of this seminal book that laid the foundation of the "Straussian School."

Instructor(s): Heinrich Meier Terms Offered: Spring. Course will be taught during the first five weeks of spring 2019.

Prerequisite(s): Open to undergrads by consent.

Note(s): will be taught twice a week for the first five weeks of spring 2019.

Equivalent Course(s): SCTH 37321, PHIL 37321, GRMN 37321, FNLD 27321

PLSC 37322. Jerusalem and Athens - On the Conflict between Revelation and Philosophy. 100 Units.

I shall discuss the subject on the basis of 4 lectures Leo Strauss gave on "Jerusalem and Athens" and "Reason and Revelation" in the period 1946-1967.

Instructor(s): Heinrich Meier Terms Offered: Spring. course will be taught spring 2020

Note(s): Open to undergrads by consent only. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): PHIL 37322, FNLD 27322, SCTH 37322

PLSC 37500. Organizational Decision Making. 100 Units.

This course examines the process of decision making in modern, complex organizations (e.g., universities, schools, hospitals, business firms, public bureaucracies). We also consider the impact of information, power, resources, organizational structure, and the environment, as well as alternative models of choice.

Instructor(s): J. Padgett Terms Offered: Winter

Equivalent Course(s): PLSC 27500, SOCI 30301

PLSC 37600. War and the Nation State. 100 Units.

The aim of this course is to examine the phenomenon of war in its broader socio-economic context during the years between the emergence of the modern nation-state at the end of the eighteenth century and the conclusion of World War II in 1945.

Instructor(s): J. Mearsheimer Terms Offered: Winter

Equivalent Course(s): PLSC 27600

PLSC 37815. Politics and Public Policy in China. 100 Units.

This course offers a historical and thematic survey of Chinese politics and of salient issues in China's public policy. We review the patterns and dynamics of political development or lack thereof in the Mao and reform eras, including the Great Leap Forward, the Cultural Revolution, and the politics of reforms. Later sections of the course look at China's political institutions, leadership, as well as various issues of governance and public policy, including state-society relations, the relationship between Beijing and the provinces, corruption, population and environment. Emphasis is on how institutions have provided the incentives for change as well as how institutions have been transformed.

Instructor(s): D. Yang Terms Offered: Winter

Equivalent Course(s): PLSC 27815, LLSO 27815

PLSC 38515. Democratic Recession: the Israeli Case. 100 Units.

This course will deal specifically with the Israel's democratic slippage during the past decade. It will examine its causes, its dynamics and its consequences, weaving in references to comparative case studies. A prior knowledge of Israeli politics, history and/or society is important.

Instructor(s): N. Chazan Terms Offered: Autumn

PLSC 38602. American National Security Strategy. 100 Units.

This course surveys contemporary National Security Strategy around the world, focusing on the most urgent and important issues of the U.S. national security agenda. The purpose of the course is to help students better understand how the U.S. formulates national security strategy, key debates over how the U.S. should handle contemporary challenges, and provide important conceptual frameworks that will enable students to grapple with the security challenges of the decade ahead. The course covers recent changes in American grand strategy, nuclear policy, and the use of conventional forces in contemporary conflicts.

Instructor(s): R. Pape Terms Offered: Spring

Equivalent Course(s): PLSC 28602

PLSC 38740. Conflict: Root Causes, Consequences, and Solutions for the Future. 100 Units.

This course will examine why people fight, the effects of fighting, and possible solutions to prevent conflict in the future. The reasons people fight, and the ways in which they fight, depend on economics, politics and psychology; we will draw on all three disciplines throughout the course. Different forms of fighting, whether terrorism or civil wars, have typically been studied separately; we will bridge this divide and study them together, assessing common root causes and approaches for resolving these conflicts.

Instructor(s): Dube, O Terms Offered: Winter

Equivalent Course(s): PPHA 38740

PLSC 39501. International Political Economy. 100 Units.

This graduate seminar focuses on the prevailing theoretical and empirical research programs in international political economy (IPE). The course will introduce a variety of frontier research problems that animate current work in the field as well as provide experience evaluating empirical research. We will discuss relations between international markets and politics: mass politics, domestic political institutions, and international politics. A central goal of the course is to generate ideas for student research, including papers and dissertation topics.
Instructor(s): R. Gulotty Terms Offered: Spring

PLSC 40000. Readings: Political Science. 100 Units.

This is a general reading and research course for independent study.

PLSC 40100. Thesis Preparation: Polsci. 100 Units.

This is an independent study course related to master's paper or dissertation research.

PLSC 40202. Case Studies on the Formation of Knowledge-I. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module." A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu Module 1: Approaches to Knowledge Shadi Bartsch, Jack Gilbert The goal of this module is to identify central issues or debates in the theory of knowledge over the past century. Students will be introduced to basic issues in the sociology of knowledge, to the arguments for and against constructivist perspectives on knowledge, and to 21st century scientific standards for knowledge production. The course should provide students with a vocabulary and conceptual tools with which they argue about these issues and reflect upon the very conceptual tools they are using. Module 2: Democratic Knowledge Shadi Bartsch, Will Howell This module offers a variation on studies of the epistemic powers of democracy. Instead of asking questions such as how effective democracies are at gathering the knowledge they need to function, the module looks at

Equivalent Course(s): MAPH 40200, HIST 40200, SOCI 40209, SCTH 40200, CHSS 40200, MAPS 40201, CMLT 41802, KNOW 40200

PLSC 40600. Seminar on IR Theory. 100 Units.

This course is a PhD-level introductory survey of the major scholarly traditions in the field of International Relations. It provides an introduction to the central theoretical approaches including realism, liberalism, and constructivism and their variants. The course also exposes students to more recent non-paradigmatic research programs, reflections on the field's development over time, and the recurring "meta-debates" which underlie many of the differences in applied areas. Seminar discussion will identify and criticize the central arguments advanced by different scholars in order to assess the relative merits of different theoretical perspectives. The course is designed to help students prepare for the Department's IR general exam: assigned and suggested readings are a starting point for building a reading list; the course offers practice with answering exam questions; students will exercise modes of critical analysis during seminar critical to passing the exam.

Instructor(s): A. Carson Terms Offered: Autumn

PLSC 40604. Militant Power Politics. 100 Units.

Is a general theory of militant group violence possible and, if so, what is the core logic? Over the past twenty years, the study of militant power politics has exploded both empirically, but especially theoretically. Today, there are a variety of theories of the causes, conduct and consequences of violence by militant non-state actors. The most important are ideological, religious, ethnic, and strategic theories, which rest on fundamentally different assumptions about the coherence of militant groups, the degree of rationality in their decision-making, and the nature of their dynamics in competition with rival states. This seminar will cover the main theories of militant power politics, encouraging students to develop their own ideas about the development of general theories to account for major modern militant groups and carry out policy-relevant research in this area.

Instructor(s): R. Pape Terms Offered: Spring

PLSC 40610. Seminar on International Security Affairs. 100 Units.

This course introduces students to a selection of the principal literature that forms the foundation of contemporary international security affairs. It is organized around four general subject areas: The international system and war, crises and war, the conduct of war, and the outcome of war. Each week, our purpose will be to critically assess the strengths and limits of the central arguments of the readings, on their own terms. Students preparing masters and PhD theses and for PhD preliminary exams will find this approach particularly useful. Specific weeks will include: Preventive War, Reputation and Deterrence, Targeting Civilians, Violence in Civil Wars, Relative Decline and War, and Why Armies Fight, among others. (D)

Instructor(s): R. Pape Terms Offered: Spring

PLSC 40801. Social Choice Theory. 100 Units.

This course will provide you with an introduction to the field of social choice theory, the study of aggregating the preferences of individuals into a "collective preference." It will focus primarily on classic theorems and proof techniques, with the aim of examining the properties of different collective choice procedures and characterizing procedures that yield desirable outcomes. The classic social choice results speak not only to the difficulties in aggregating the preferences of individuals, but also to the difficulties in aggregating any set of diverse criteria that we deem important to making a choice or generating a ranking. Specific topics we will cover include preference aggregation, rationalizable choice, tournaments, sophisticated voting, domain restrictions, and the implicit trade-offs made by game theoretic versus social choice theoretic approaches to modeling.

Instructor(s): M. Nalepa Terms Offered: Autumn

Note(s): This course is a prerequisite for PLSC 30901 Game Theory I

Equivalent Course(s): PLSC 20750

PLSC 42420. Approaches to the History of Political Thought. 100 Units.

This course will examine some of the most influential recent statements of method in the history of political thought, alongside work by the same authors that may (or may not) put those methods or approaches into practice. We will read works by Quentin Skinner, Reinhart Koselleck, J.G.A. Pocock, Leo Strauss, Sheldon Wolin, Michel Foucault, and David Scott among others, with some emphasis on writings about Hobbes and questions of sovereignty and the state. (E)

Instructor(s): J. Pitts Terms Offered: Winter

Equivalent Course(s): SETH 42420

PLSC 42501. Athenian Democracy and its Critics. 100 Units.

No course description available.

Instructor(s): M. Landauer Terms Offered: Spring

Equivalent Course(s): CLAS 32515

PLSC 42502. Knowledge and Politics. 100 Units.

What is the relationship between knowledge and power, and between science and democracy? What kinds of knowledge are needed in politics, and who needs to know what? In this course we read a number of philosophers, theorists, and social scientists interested in the relationship between knowledge and politics. Topics covered may include: the epistemic properties of political institutions and markets; the role of expertise in politics; values in science and public policy; and theories of epistemic democracy and epistemic injustice. (A)

Instructor(s): M. Landauer Terms Offered: Winter

Equivalent Course(s): PLSC 22505

PLSC 42701. Seminar in Chinese Politics. 100 Units.

This is a research-oriented seminar for graduate students interested in exploring current research on China and in conducting their own research. Our emphasis will be on the changing nature of the Chinese Party-state, and the relations between state and economy and between state and society as the Chinese society, economy and the level of technology have undergone dramatic changes in recent decades. Throughout the course we'll also pay attention to the course, dynamics, and challenges of making reform. Though the readings are on China, we are to consider China's development comparatively and in view of recent developments in political science.

Instructor(s): D. Yang Terms Offered: Winter

PLSC 43002. State Formations and Types of States: Global Perspectives. 100 Units.

Why, historically, did states emerge, and what did they do? The course begins by investigating standard narratives of European state formation, then proceeds to ask whether non-European and premodern state formations conform to the scholarly theories. Finally, we wonder whether theories of state formation fit empires or federal states. This course asks students simultaneously to take seriously social science explanations for state formation and the historical record.

Instructor(s): S. Pincus & J. Robinson Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructors.

Equivalent Course(s): HIST 43002

PLSC 43100. Maximum Likelihood. 100 Units.

The purpose of this course is to familiarize students with the estimation and interpretation of maximum likelihood, a statistical method which permits a close linkage of deductive theory and empirical estimation. Among the problems considered in this course include: models of dichotomous choice, such as turnout and vote choice; models of limited categorical data, such as those for multi-party elections and survey responses; models for counts of uncorrelated events, such as executive orders and bookburnings; models for duration, such as the length of parliamentary coalitions or the tenure of bureaucracies; models for compositional data, such as allocation of time by bureaucrats to task and district vote shares; and models for latent variables, such as for predispositions. The emphasis in this course will be on the extraction of information about political and social phenomena, not upon properties of estimators.

Instructor(s): J. Brehm Terms Offered: Autumn

Prerequisite(s): PLSC 30700 Intro to Linear Models or consent of instructor.

PLSC 43401. Mathematical Foundations of Political Methodology. 100 Units.

This is a first course on the theory and practice of mathematical methods in social science research. These mathematical and computer skills are needed for the quantitative and formal modeling courses offered in the political science department and are increasingly necessary for courses in American, Comparative, and International Relations. We will cover mathematical techniques (linear algebra, calculus, probability) and methods of logical and statistical inference (proofs and statistics). A weekly computing lab will apply these methods, as well as introduce the R statistical computing environment. Students are expected to have completed SOSC 30100: Mathematics for Social Sciences.

Instructor(s): R. Gulotty Terms Offered: Autumn

Prerequisite(s): Students are expected to have completed SOSC 30100: Mathematics for Social Sciences.

Note(s): This course is a prerequisite for PLSC 30901 Game Theory I

PLSC 43801. Plato's Legacies. 100 Units.

Some of the most significant efforts to question political theory's core concepts, unsettle its approaches, and expose its dangerous ideals have depended on major re-interpretations of Plato's thought. This course investigates the broad critical impulse to treat Plato as the originator of political positions and interpretive assumptions that late modernity frequently seeks to critique and less often to celebrate. We consider the charges of essentialism, authoritarianism, and foundationalism, among others, and ask to what (if any) extent considerations of the texts' historical contexts and dramaturgical conditions have factored into these assessments. Readings will include works by Popper, Strauss, Arendt, Derrida, Castoriadis, Wolin, Irigaray, Cavarero, Butler, and Rancière alongside Plato's dialogues. Students are expected to be familiar with Plato's thought upon enrolling.

Instructor(s): D. Kasimis Terms Offered: Autumn

Equivalent Course(s): CLAS 33815

PLSC 43820. Plato's Republic. 100 Units.

This course is devoted to reading and discussion of Plato's Republic and some secondary work with attention to justice in the city and the soul, war and warriors, education, theology, poetry, gender, eros, and actually existing cities.

Instructor(s): Nathan Tarcov Terms Offered: Autumn. Course will be taught Autumn 2019

Prerequisite(s): Undergrads by consent

Equivalent Course(s): LLSO 23915, SETH 31770, FNDL 29503

PLSC 43902. U.S. Congress. 100 Units.

The purpose of this seminar is to introduce graduate students to the literature on the U.S. Congress. Although we will read a range of studies with different methodological approaches and theoretical perspectives, including some comparative research, we will focus in particular on the development of the U.S. Congress over time. We will be concerned with analyzing, explaining, and understanding key transformative sequences in American legislative politics—tracing the implications of these transformations through to contemporary times. To discuss these questions in appropriate depth, we will limit our inquiry to Congress as an institution (e.g., internal processes and behavior), discussing congressional campaigns and elections only as they relate to these subjects.

Instructor(s): R. Bloch Rubin Terms Offered: Winter

PLSC 44110. The Politics of Value Pluralism. 100 Units.

Value pluralism - the idea that difficult moral questions may have more than one right answer, that some of those answers conflict, and that there may be no rationally authoritative way of choosing between them - has attracted increasing attention from political theorists and philosophers. If true, this non-obvious and heterodox view raises significant challenges for political practice. How can we engage our fellow citizens rationally, if we do not share their moral assumptions, aims, or evidentiary authorities? On what basis can we hold political authorities accountable, if we cannot agree on the same moral criteria to distinguish legitimate from illegitimate uses of political power? If difficult moral questions permit more than one right answer, will that encourage practices of toleration and generosity, or the brute force of majority preference? This seminar will ask what value pluralism really means, what evidence we have for it, and what consequences it entails for a liberal politics.

Instructor(s): Chad Cyrenne Terms Offered: Winter

Equivalent Course(s): MAPS 44100

PLSC 44201. Liberalism. 100 Units.

The post-war consensus on liberal democratic government can today seem under siege in Europe and the United States. Has liberalism run its course, its once revolutionary promise now dimmed by rising inequality, populist ideology, and perceived threats to national cultures? What newer, more persuasive liberalism might replace the managerial, economic, instrumental model that we've inherited? This seminar explores a variety of answers to that question, arguing that the canonical replies may be stranger, the forgotten alternatives more compelling, and liberal thought far more variegated than liberalism's critics or defenders have recognized.

Our eclectic respondents include F.A. Hayek, Judith Shklar, Bernard Williams, Susan Okin, Richard Rorty, and Nancy Rosenblum. We will also explore some surprisingly topical interventions by John Locke, Voltaire, Diderot, Condorcet, Mary Wollstonecraft, John Dewey, and José Ortega y Gasset.

Equivalent Course(s): PLSC 24201, MAPS 44200

PLSC 44801. Network Theory for International Political Economy. 100 Units.

This course introduces students to the ongoing network turn in international political economy (IPE). It has three goals. First, students will replace purely metaphorical (and vague) talk of networks with focused propositions about the network properties and dynamics of contemporary phenomena such as international hierarchy, regional fragmentation amidst global integration, and the fate of sovereign territoriality in an age of (violent) transnational activism. Second, students will ponder competing explanations of the network turn in IPE: have IPE scholars abandoned conventional analytical tools in favor of network theory, because the conventional toolkit already came with rudimentary network-theoretic devices that simply needed sharpening; or did some changes in the real international economy prompt the shift? Finally, students will critically assess the ability of SNT to be a vehicle for innovative social science. They will do this, in part, by devising a research proposal of their own that assesses the validity and utility of testing a single network-theoretic proposition against some conventional competitor.

Instructor(s): M. Staisch Terms Offered: Spring

Equivalent Course(s): INRE 44802

PLSC 44810. Hannah Arendt: From Kantian Aesthetics to the Practice of Political Judgment. 100 Units.

The third volume of Hannah Arendt's *The Life of the Mind* was never written. As her editor, Mary McCarthy, observed: "After her death, a sheet of paper was found in her typewriter, blank except for the heading 'Judging' and two epigraphs. Sometime between the Saturday of finishing 'Willing' [the second volume of the aforementioned work] and the Thursday of her death, she must have sat down to confront the final section." In this course we will consider the possibility that Arendt does in fact address the problem of validity (which, with Kant she calls "subjective validity"), with one important caveat: she does not think that validity in itself is the all-important problem or task for political judgment—the affirmation of political community as the realm of human plurality and freedom is. We will examine those aspects of Kant's *Critique of Judgment* that she neglected, such as the non-cognitive function of productive imagination and the limits of reproductive imagination in the aesthetic of the sublime. We shall also consider the rather different critical view, advanced by postmodern thinkers like Lyotard, that Arendt does not repudiate but rather shares Habermas' attempt to ground political community on a practice of judgment at whose center stands not the demand to create political community anew, but the idea that radical differences of opinion are in principle resolvable by means of proofs.

Instructor(s): L. Zerilli Terms Offered: Spring

PLSC 44905. Feminism and the Radical Democratic Imaginary: Futures Past. 100 Units.

In Part I of this course we explore how conceptualizations of the past shape imaginative visions of possible futures. How we understand the past has a direct bearing on what can count as a "realistic" course of social, political, and economic action. Our conception of the past is itself shaped by a projected future and different societies have different ways of imagining the relations between their own future and past. Originating in the revolutionary 18th century, Western feminism's conceptualization of this relation, its own "futures past" (to speak with Reinhard Koselleck), is characterized by an anticipatory and distinctively modern temporality that assumes the novelty and openness of the future. If the history of feminism calls at times for rewriting, that is less because new facts are discovered than that the ever-changing present opens new perspectives on the past and makes new demands on what it can mean. The past is figured more in terms of projected futures than fidelity to how things really were. For this reason, feminist historiography is rife with debates about whose story is told, and the idea of a "wave" itself has with good reason been criticized as overly generalizing in ways that blind us to the far more fraught and complex histories not captured in its conceptual net.

Instructor(s): L. Zerilli Terms Offered: Autumn

Equivalent Course(s): GNSE 44905

PLSC 45010. Social Theory and the Economy. 100 Units.

This course will survey a variety of works in economic sociology, political economy and organization theory. The focus will be substantively on the changing character of market process, the location of production and the governance of flows of labor and capital. Theoretically, we will survey recent work in Actor-Network Theory, Experimentalist Governance, field theory and institutionalism. Among others, we will read work by Polanyi, Sahlins, Beckert, Latour, Callon, Mackenzie, Fligstein, Boltanski, Sabel, Thelen.

Instructor(s): G. Herrigel Terms Offered: Spring

Equivalent Course(s): SOCI 40227

PLSC 45502. The Study of Criminal Justice and Race in the United States. 100 Units.

This course will familiarize students with the major themes in recent scholarship on criminal justice and race in the United States. These include how racial hierarchies influence legislation, the role criminal justice plays in racial construction, the functioning of bureaucracies in racialized societies, and the political consequences of criminal justice policy. It will also take this scholarship as an object of study to critically assess the scope of questions being answered in this area, and examine the relationship between epistemological commitments, ontological premises, and the ability of systematic inquiry to serve or subvert racial hierarchies.

Terms Offered: Spring

Note(s): A. McCall

Equivalent Course(s): CRES 45503

PLSC 45601. Theories of Capitalism since Veblen. 100 Units.

This course serves as an introduction to the literature on political economy in the twentieth century. Emphasis will be placed on the way in which various authors normatively understand the relationship between politics and economic process. Works by Veblen, Weber, Keynes, Hayek, Schumpeter, Polanyi, Kalecki, Bell, Aglietta, Rajan & Zingales, Streeck, and Blyth, among others, will be considered.

Instructor(s): G. Herrigel Terms Offered: Winter

Equivalent Course(s): SOCI 40222

PLSC 45705. Theories of Global Capitalism since Hobson. 100 Units.

This course examines theories of capitalist globalization and its relationship to/ role in economic and political development in the non Western world since the beginning of the 20th century. Emphasis will be placed on the way in which various authors normatively understand the relationship between politics and economic process. Works by Hobson, Lenin, Luxemburg, Schumpeter, Lewis, Hirschman, Frank, Evans, Arrighi, Vernon, Stiglitz, Rodrik and others will be considered.

Instructor(s): G. Herrigel Terms Offered: Spring

Equivalent Course(s): SOCI 40223

PLSC 45710. Race and Capitalism. 100 Units.

This course will address issues of race and capitalism.

Instructor(s): Dawson, Michael Katzenstein, Emily Terms Offered: Winter

Equivalent Course(s): CRES 45700

PLSC 45900. Theories Of Equality. 100 Units.

This course will provide a survey of contemporary egalitarian thought. The structure of the course will consist in three parts. The first part will focus on the idea of equality: What is equality? Why is it valuable? The second part will examine some of the main contemporary egalitarian theories of justice. Relevant questions at this stage will include: What kind of equality should a just society exhibit? Should equality be understood as a property of economic distributions, of the structure of human relations, or both? Under what circumstances is inequality objectionable, and among whom (e.g. citizens of a same country, citizens of different countries, present and future generations, family members etc.)? The third part of the course will turn to institutional proposals for an egalitarian society. We will compare and discuss advantages and disadvantages, from the perspective of equality, of different ways of organizing economic and social relations, including welfare capitalism, social democracy, property-owning democracy, and democratic socialism. The class will provide an opportunity to read and examine a variety of highly influential and politically relevant contemporary texts in moral and political philosophy, as well as in other disciplines. Covered authors will include, among others, John Rawls, Susan Moller Okin, Elizabeth Anderson, Debra Satz, G.A. Cohen, Amartya Sen, Ronald Dworkin, David Schweickart, Gosta Esping Andersen, and Erik Olin Wright.

Instructor(s): C. Cordelli Terms Offered: Spring

Equivalent Course(s): PLSC 25815

PLSC 46401. Co-evolution of States and Markets. 100 Units.

This course will focus on the emergence of alternative forms of organization control (e.g., centralized bureaucracy, multiple hierarchies, elite networks, and clientage) in different social structural contexts (e.g., the interaction of kinship, class, nation states, markets and heterodox mobilization). Themes will be illustrated in numerous cross-cultural contexts.

Instructor(s): J. Padgett Terms Offered: Autumn

Equivalent Course(s): SOCI 40232

PLSC 46600. Political Economy of Development. 100 Units.

This course is intended as an introduction for Ph.D. students to the research literature in the political economy of development. Its purpose is to give students both a sense of the frontier research topics and a good command of how social science methodological tools are used in the area.

Instructor(s): Blattman, C; Robinson, J Terms Offered: Spring

Equivalent Course(s): PPHA 41120, ECON 35570

PLSC 48001. Field Seminar in Comparative Politics I. 100 Units.

This seminar broadly surveys the study of comparative politics in contemporary political science.

Instructor(s): L. Wedeen Terms Offered: Winter

PLSC 48101. Field Seminar in Comparative Politics II. 100 Units.

This seminar broadly surveys the study of comparative politics in contemporary political science.

Instructor(s): M. Nalepa, B. Lessing Terms Offered: Spring

Prerequisite(s): PLSC 30901 Game Theory 1 or equivalent

PLSC 48401. Quantitative Security. 100 Units.

Since Quincy Wright's *A Study of War*, scholars of war and security have collected and analyzed data. This course guides students through an intellectual history of the quantitative study of war. The course begins with Wright, moves to the founding of the *Correlates of War* project in the late 1960s, and then explores the proliferation of quantitative conflict studies in the 1990s and 2000s. The course ends by considering the recent focus on experimental and quasi-experimental analysis. Throughout the course, students will be introduced to the empirical methods used to study conflict and the data issues facing quantitative conflict scholars. For students with limited training in quantitative methods, this course will serve as a useful introduction to such methods. For students with extensive experience with quantitative methods, this course will deepen their understanding of when and how to apply these methods.

Instructor(s): P. Poast Terms Offered: Winter

Equivalent Course(s): PPHA 39830

PLSC 48801. Constitutional Law for LL.M. Students. 100 Units.

This course is designed to introduce LL.M. students to U.S. constitutional law. Topics to be covered include the theory, development and practice of judicial review, the allocation of powers among the legislative, executive, and judicial branches, and the role of and interactions between the states and the federal government in the federal structure. In addition, the course will cover key doctrines in the areas of equal protection and substantive due process.

Instructor(s): G. Rosenberg Terms Offered: Autumn

PLSC 49200. American Political Development. 100 Units.

In this course we will explore long-term changes in the American political system. Covering key works in the field, course readings will be organized around several core questions. How did we get the political institutions we have today? How has American political culture shaped these institutions? What is the relationship between changes in the economy and changes in state and party organization? We will also attend to issues of method, especially the links between history and social science.

Instructor(s): R. Bloch Rubin Terms Offered: Spring

PLSC 50000. Dissertation Proposal Seminar. 100 Units.

A weekly seminar devoted to the presentation and collective discussion of several drafts of each student's dissertation proposal.

Instructor(s): L. Wedeen Terms Offered: Winter

PLSC 50325. Public Morality and Legal Conservatism. 100 Units.

This seminar will study the philosophical background of contemporary legal arguments alluding to the idea of "public morality," in thinkers including Edmund Burke, James Fitzjames Stephen, and Patrick Devlin, and the criticisms of such arguments in thinkers including Jeremy Bentham, John Stuart Mill, and Herbert Hart. We will then study legal arguments on a range of topics, including drugs and alcohol, gambling, nudity, pornography and obscenity, non-standard sex, and marriage.

Equivalent Course(s): RETH 50325, PHIL 50325, GNSE 50325

PLSC 51512. Workshop: Law and Philosophy. 50 Units.

Substantial Writing Requirement. The theme for 2019-20 is "Migration and Citizenship." This is a seminar/workshop many of whose participants are faculty from various related disciplines. It admits approximately ten students. Its aim is to study, each year, a topic that arises in both philosophy and the law and to ask how bringing the two fields together may yield mutual illumination. Most sessions are led by visiting speakers, from either outside institutions or our own faculty, who circulate their papers in advance. The session consists of a brief introduction by the speaker, followed by initial questioning by the two faculty coordinators, followed by general discussion, in which students are given priority. Several sessions involve students only, and are led by the instructors. Students write a 20-25 page seminar paper at the end of the year. The course satisfies the Law School

Instructor(s): D. Guillery; M. Nussbaum Terms Offered: Autumn Spring Winter

Prerequisite(s): Students are admitted by permission of the two instructors. They should submit a c.v. and a statement (reasons for interest in the course, relevant background in law and/or philosophy) to the instructors by e-mail by September 20. Ph.D. students in Philosophy and Political Theory and law students do not need permission.

Note(s): Students must enroll for all three quarters to receive credit.

Equivalent Course(s): PHIL 51200, HMRT 51301, GNSE 50101, RETH 51301

PLSC 51516. Henry Sidgwick. 100 Units.

The most philosophically explicit and rigorous of the British Utilitarians, Henry Sidgwick made important contributions to normative ethics, political philosophy, and metaethics. His work also has important implication for law. His great work *The Methods of Ethics*, which will be the primary focus of this seminar, has been greatly admired even by those who deeply disagree with it - for example John Rawls, for whom Sidgwick was important both as a source and as a foil, and Bernard Williams, who wrote about him with particular hostility. Sidgwick provides the best defense of Utilitarianism we have, allowing us to see what it really looks like as a normative ethical and social theory. Sidgwick was also a practical philosopher and activist, writing on many topics, but especially on women's higher education, which he did much to pioneer at Cambridge University, founding Newnham College with his wife Eleanor. A rationalist who helped to found the Society for Psychological Research, an ardent feminist who defended the ostracism of the "fallen woman," a closeted gay man who attempted to justify the proscriptions of Victorian morality, Sidgwick is a philosopher full of deep tensions and fascinating contradictions, which work their way into his arguments. So we will also read the work in the context of Sidgwick's contorted relationship with his era. (I) (IV)

Instructor(s): M. Nussbaum Terms Offered: Autumn

Prerequisite(s): An undergraduate major in philosophy or some equivalent solid philosophy preparation. This is a 500 level course. Ph.D. students in Philosophy and Political Theory may enroll without permission.

Note(s): Admission by permission of the instructor. Permission must be sought in writing by September 15.

Equivalent Course(s): PHIL 51516, RETH 51516

PLSC 52402. Florentine Political Thought. 100 Units.

This course is devoted to the political writings of the giants of medieval and Renaissance Italian and specifically Florentine political thought: Petrarch, Salutati, Bruni, Bracciolini, Savonarola, Guicciardini and, of course, Machiavelli.

Instructor(s): J. McCormick Terms Offered: Winter

Equivalent Course(s): LLSO 22402, PLSC 22402

PLSC 52601. Pheromones: The Chemical Signals Around You. 100 Units.

Equivalent Course(s): GNSE 52600

PLSC 53000. Seminar on Great Power Politics. 100 Units.

The aim of this course is to explore some of the key questions concerning relations among the great powers.

Instructor(s): J. Mearsheimer Terms Offered: Winter

PLSC 53101. Seminar: Democracy and the Information Technology Revolution. 100 Units.

The revolution in information technologies has serious implications for democratic societies. We concentrate, though not exclusively, on the United States. We look at which populations have the most access to technology-based information sources (the digital divide), and how individual and group identities are being forged online. We ask how is the responsiveness of government being affected, and how representative is the online community. Severe conflict over the tension between national security and individual privacy rights in the U.S., United Kingdom and Ireland will be explored as well. We analyze both modern works (such as those by Turkle and Gilder) and the work of modern democratic theorists (such as Habermas). An emphasis in this course will be the methodologies and research agendas utilized by scholars in this field.

Instructor(s): M. Dawson Terms Offered: Spring

PLSC 53300. Seminar on Nuclear Weapons and International Politics. 100 Units.

The aim of this course is to examine how nuclear weapons have affected the conduct of international relations. Special attention will be paid to subjects like: 1) nuclear deterrence, 2) the causes of nuclear proliferation, 3) the consequences of nuclear proliferation, 4) strategies for employing nuclear weapons, 4) the role of nuclear weapons in the Cold War, 5) how nuclear weapons will affect relations among the great powers in the emerging multipolar world, and 6) whether there has been a "nuclear revolution."

Instructor(s): J. Mearsheimer Terms Offered: Spring

PLSC 53900. Thucydides. 100 Units.

This course offers an introductory reading of Thucydides's *History of the Peloponnesian War*, on the classic guides to politics, both domestic and international. Themes may include: progress and decline; justice, necessity, and expediency; fear, honor, and gain as motives of political action; the strengths and weaknesses of democracies and oligarchies in domestic and foreign policy; stability and revolution; strategy, statesmanship, and prudence; the causes and effects of war; relations between stronger and weaker powers; imperialism, isolationism, and alliances; and piety, chance, and the limits of rationality. We will conclude by reading the first books of Xenophon's *Hellenica* to see how the war ended.

Instructor(s): Nathan Tarcov Terms Offered: Winter

Note(s): It is a grad and undergrad course, open to undergrads

Equivalent Course(s): SETH 31780, PLSC 23900, FNDL 21780

PLSC 55300. Workshop: Political Economy. 100 Units.

This is a workshop; Only open to PhD students and is an audit only course.

Terms Offered: Autumn Spring Winter

Equivalent Course(s): PPHA 56100, ECON 56100

PLSC 55818. Hellenistic Ethics. 100 Units.

The three leading schools of the Hellenistic era (starting in Greece in the late fourth century B. C. E. and extending through the second century C. E. in Rome) - Epicureans, Sceptics, and Stoics - produced philosophical work of lasting value, frequently neglected because of the fragmentary nature of the Greek evidence and people's (unjustified) contempt for Roman philosophy. We will study in a detailed and philosophically careful way the major ethical arguments of all three schools. Topics to be addressed include: the nature and role of pleasure; the role of the fear of death in human life; other sources of disturbance (such as having definite ethical beliefs?); the nature of the emotions and their role in a moral life; the nature of appropriate action; the meaning of the injunction to "live in accordance with nature". If time permits we will say something about Stoic political philosophy and its idea of global duty. Major sources (read in English) will include the three surviving letters of Epicurus and other fragments; the skeptical writings of Sextus Empiricus; the presentation of Stoic ideas in the Greek biographer Diogenes Laertius and the Roman philosophers Cicero and Seneca. (IV)

Instructor(s): M. Nussbaum Terms Offered: Autumn

Prerequisite(s): Admission by permission of the instructor. Permission must be sought in writing by September 15. An undergraduate major in philosophy or some equivalent solid philosophy preparation, plus my permission. This is a 500 level course. Ph.D. students in Philosophy, Classics, and Political Theory may enroll without permission.

Note(s): This course complements the Latin course on Stoic Ethics in the Winter quarter, and many will enjoy doing both.

Equivalent Course(s): CLAS 45818, RETH 55818, PHIL 55818

PLSC 56101. International Human Rights. 100 Units.

This course is an introduction to international human rights law, covering the major instruments and institutions that operate on the international plane. It includes discussion of the conceptual underpinnings of human rights, the structure of the United Nations System, the major international treaties, regional human rights machinery, and the interplay of national and international systems in enforcing human rights. There are no prerequisites. Grading will be on the basis of a take-home exam at the end of the quarter. Students who wish to write, in lieu of the exam, a paper sufficient to satisfy the substantial writing requirement, may do so upon approval of the topic in advance.

Equivalent Course(s): HMRT 37700, LLSO 23262, PPHA 38752

PLSC 56300. The Global Plantation. 100 Units.

From its emergence in the late-medieval Mediterranean, to the slave societies of the New World, through its late colonial heritage in Africa, Asia, and the Pacific, the plantation has been a paradigmatic institution of racial-capitalist modernity. Through a range of texts that includes slave narratives, novels, political economy, sociological studies and recent histories of capitalism, this course explores how the plantation opened a vexed problem-space in which concepts central to the modern world (such as sovereignty, freedom, and labor) emerged, were debated, and continuously refigured. While the plantation is frequently figured as an institution of the past, this transnationally and transhistorically oriented course will examine a set of thinkers who argue for the aliveness of the plantation's present in the shaping of political, economic, and social trajectories in the postcolonial world.

Instructor(s): Christopher Taylor & Adam Getachew Terms Offered: Spring

Equivalent Course(s): ANTH 50405, ENGL 55603, CDIN 56300, CRES 56300

PLSC 57200. Network Analysis. 100 Units.

This seminar explores the sociological utility of the network as a unit of analysis. How do the patterns of social ties in which individuals are embedded differentially affect their ability to cope with crises, their decisions to move or change jobs, their eagerness to adopt new attitudes and behaviors? The seminar group will consider (a) how the network differs from other units of analysis, (b) structural properties of networks, consequences of flows (or content) in network ties, and (c) dynamics of those ties.

Instructor(s): J. Padgett Terms Offered: Autumn

Equivalent Course(s): SOCI 50096

PLSC 70000. Advanced Study: Political Science. 300.00 Units.

Advanced Study: Political Science



DEPARTMENT OF PSYCHOLOGY

Chair

- David Gallo

Professors

- Edward Awh
- Jean Decety
- David Gallo
- Susan Goldin-Meadow
- Leslie M. Kay
- Boaz Keysar
- Susan Cohen Levine
- John A. Lucy, Comparative Human Development
- Daniel Margoliash, Organismal Biology and Anatomy
- Howard C. Nusbaum
- Brian Prendergast
- Steven K. Shevell
- Richard Shweder, Human Development
- Michael Silverstein, Anthropology
- Edward Vogel
- Amanda Woodward

Associate Professors

- Marc Berman
- William Goldstein
- Sarah London
- Greg Norman

Assistant Professors

- Monica Rosenberg
- Alex Shaw
- Daniel Yurovsky

Emeritus Faculty

- R. Darrell Bock
- Abraham Bookstein, Humanities Division
- Norman M. Bradburn
- Robert A. Butler, Surgery
- Mihaly Csikszentmihalyi
- Eugene T. Gendlin
- Sebastian P. Grossman
- Eric P. Hamp, Linguistics
- Philip W. Jackson, Education
- Jerre Levy
- Frederick F. Lighthall, Education
- Martha McClintock
- David McNeill
- Joel M. Pokorny, Ophthalmology and Visual Science
- Allan Rechtschaffen, Psychiatry
- Milton J. Rosenberg
- Vivianne Smith, Ophthalmology and Visual Science
- Nancy Lou Stein
- Benjamin D. Wright

Department website: <http://psychology.uchicago.edu>

The primary focus of the study of psychology is on the individual. Thus, its scope includes the biological processes of brain growth, development and functioning; the perceptual and cognitive processes by which information is acquired, stored, used and communicated; the comprehension, production, and use of language from a psychological viewpoint; the social, cultural, and emotional processes by which experience is interpreted and organized; and the developmental processes that underlie change from infancy through adulthood. Training emphasizes the conceptual theories that describe and explain these processes, and the variety of methods that are used to study them.

Originally founded as the Laboratory of Psychology in 1893, the Department of Psychology has been for a century a leading center of scholarship, research and teaching in psychology and related fields. Among its distinguished faculty and students have been James Rowland Angell, John Dewey, George Herbert Mead, John B. Watson, the founder of behaviorism, L. L. Thurstone, a pioneer in psychological measurement, Karl Lashley, Klüver and Bucy, Kleitman, discoverer of REM sleep, Frank Beach, founder of behavioral endocrinology, W. C. Allee who viewed biology as a social phenomenon, and Roger Sperry, Nobel Prize winner for his work in cerebral lateralization. The present Department of Psychology is conscious of its distinguished intellectual forebears and continues to reflect its heritage in its commitment to research, the scope of its inquiry, and the diversity of its programs of graduate study.

Moreover, consistent with the interdisciplinary traditions of the University of Chicago, the Department of Psychology maintains close connections with other departments in the University. The department's faculty and students actively participate in courses, colloquia, workshops and joint research ventures with scholars in related departments, including, but not confined to, anthropology, biology, computer science, computational neuroscience, linguistics, neurobiology, and philosophy, and in the University's professional schools of business, public policy, law, medicine, and social service administration.

The Department of Psychology is organized into specialized training and research programs that reflect the contemporary state of the discipline as well as wide ranging interests of its own faculty. They are currently the Cognition Program, the Developmental Psychology Program, the Integrative Neuroscience Program, the Perception Program, and the Social Psychology Program. The interdisciplinary character of the University and the Department of Psychology is reflected in the fact that many faculty members serve on more than one of the department's programs.

DEGREES

The course of study offered by the Department of Psychology is designed primarily to prepare students for careers in research and teaching and for whatever professional work is necessary as an adjunct to these career objectives. Programs of graduate study offered by the department lead to the PhD degree in the Division of the Social Sciences. In order to qualify for the PhD degree, students must satisfy:

1. The University's residency requirements
2. The requirements of the Division of the Social Sciences
3. The requirements of the particular program of the Department of Psychology

The Department of Psychology does not offer courses of study leading to the degree of Master of Arts. However, students admitted to doctoral study may take the Master of Arts degree as an optional step in the doctoral program. Similarly, a student admitted who must leave the program, for whatever reason, may apply for a terminal Masters of Arts degree, providing the student has met the University's residency requirements, the requirements of the Division of the Social Sciences, and the program requirements of the particular program of the Department of Psychology.

PSYCHOLOGY LINGUISTICS JOINT PHD PROGRAM

A joint PhD degree program in psychology and linguistics exists for those students who are interested in completing degree requirements in both fields. Psychology students in the Language area of the Cognition Program may apply to the joint degree program in the second year and beyond, but are not required to do so.

PSYCHOLOGY-BUSINESS JOINT PHD PROGRAM

A joint PhD degree program in psychology and business exists for those students who are interested in completing degree requirements in both fields. This program is overseen jointly by the Department of Psychology and by the Managerial and Organizational Behavior Area in the Booth School of Business. Admission to this program requires admission to both the PhD program in psychology and at Booth School of Business. Faculty in both programs will determine, based in a student's primary research interests and/or explicit preferences for a primary research advisor, which program will be the student's primary affiliation.

ADMISSION

Students are admitted by application to the Department of Psychology to pursue courses of study in doctoral programs that are formulated by the individual programs. Applicants must specify the program to which they are applying. Applicants will be considered for admission only if they have earned a bachelor's

degree or its equivalent. Admission depends upon the strength of the general undergraduate record, scores on the Graduate Record Examination, letters of recommendation, personal statement and interests, and relevant laboratory or field research experience. Please refer to the Office of International Affairs web site: <https://internationalaffairs.uchicago.edu/students/prospective/toefl.shtml>. Foreign language students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Testing System (IELTS). Candidates for admission are expected to have some background in psychology as well as mathematics and statistics. Candidates with backgrounds in anthropology, history or sociology are encouraged to apply to Psychology, (the Social Psychology Program); those with strong biological training and interests are encouraged to apply to Psychology, (the Integrative Neuroscience Program or the Social Program).

Students are admitted through the Division of the Social Sciences. Students already enrolled in the Department of Linguistics of the Division of the Humanities who wish to work toward the joint Ph.D. in Psychology, (the Language area of the Cognition Program) and in Linguistics must be admitted as well to the Department of Psychology through the Division of the Social Sciences.

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <http://apply-ssd.uchicago.edu/apply/>. Most of the required supplemental material can be uploaded into the application.

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

For additional information about the Psychology program, please see: <http://psychology.uchicago.edu/> or call 773-702-8861.

GENERAL REQUIREMENTS FOR DOCTORAL STUDENTS

All doctoral students in the Department of Psychology must complete the common graduate curriculum. In addition, each student must complete the course requirements specified by one of the department's specialized training and research programs. In exceptional cases, a student may design an individual sequence of courses. This sequence must be approved by the curriculum and student affairs committee before the student undertakes it. Completion of these course requirements is a prerequisite for Ph.D. candidacy.

COMMON GRADUATE CURRICULUM

The common curriculum consists of a maximum of 8 courses. Other requirements for graduate students will be set by the areas of specialization.

Proseminar: One-quarter course in which faculty members whose primary affiliation is the Department of Psychology give a summary of their ongoing research and students write a research proposal, to be submitted for an NSF graduate fellowship if the student is eligible for this funding. Professional development topics are also covered.

Statistics requirement, passed with a grade of B or better:

STAT 22000	Statistical Methods and Applications (or BUSF 41000 or equivalent approved by the Graduate Curriculum Committee. More advanced courses, for which these courses are prerequisites, also fulfill this requirement.)	100
PSYC 37300	Experimental Design I	100
PSYC 37900	Experimental Design II	100

TRIAL RESEARCH SEMINAR

All graduate students are required to take the trial research seminar in the spring of the first year. The purpose of this seminar is to help students formulate and complete their trial research projects.

BREADTH REQUIREMENT

Students are required to take a minimum of three doctoral level courses in Psychology, extending across different areas of psychological science. These courses should be chosen in consultation with the student's advisor and program area. These courses must be passed with a grade of B or better.

DEPARTMENT OF PSYCHOLOGY RESEARCH REQUIREMENTS

TRIAL RESEARCH PROJECT

- Each student will complete a trial research project under the guidance of a faculty advisor or advisors by the end of the 7th week of the spring quarter of the second year.
- At the start of the project, each student must form a trial research committee, composed of three faculty members. Typically, the chair of the committee is the student's primary research advisor. The chair of the committee must be a faculty or emeritus faculty member in the Psychology Department. At least one other

member of the committee must be a faculty, emeritus faculty or affiliated faculty member in the Psychology Department. The third member of the committee may be from outside of the Psychology Department, provided that the chair of the trial research committee gives his or her approval.

3. The student must submit a proposal for the trial research project to his or her committee for approval by the second week of autumn quarter of the second year. Essential to this approval is the committee's decision that the project can feasibly be completed by the end of the second year.
4. On Friday of the seventh week of the spring quarter of the student's second year a written report of the trial research project is due.
5. The student will submit the trial research paper prior to the end of the spring quarter of the second year and defend the trial research paper at a hearing with his or her committee prior to the end of the Spring Quarter of the second year. At the hearing, the committee will also assess the student's breadth and depth of knowledge of his or her research problem.
6. The student's committee will have evaluated the report, and will have submitted a written evaluation to the Student Affairs Committee by the end of the spring quarter.
7. Successful completion of the trial research project is a prerequisite for PhD candidacy.

DISSERTATION

1. To begin the dissertation process, a student must form a three-member dissertation committee consisting of a chairperson and two other faculty members. Typically, the chair is the student's primary research advisor. The chair of the dissertation committee must be a faculty or emeritus faculty member in the Psychology Department. At least one other member of the committee must be a faculty, emeritus faculty or affiliated faculty member in the Psychology Department. The third member of the committee must be from the university of Chicago, but may be from outside of the Psychology Department, provided that the chair of the dissertation committee gives his or her approval.
2. Once a dissertation committee exists, the student must formulate an independent research project to be carried out under the committee's guidance. The student will then prepare a written dissertation proposal and submit it to his or her committee. When the student's advisor agrees, the student may schedule an oral defense of the proposal.
3. To be admitted to PhD candidacy, a student must have successfully completed: (a) the Common Graduate Curriculum (including the statistics, and breadth requirement); (b) the course requirements specified by a program or an individual course of study approved by the Curriculum Committee; (c) a trial research project; (d) approval of the dissertation proposal by all members of the student's dissertation committee following the oral defense.
4. The completed thesis must be submitted to all three committee members. When the student's advisor agrees, the student may schedule an oral defense of the dissertation. The oral exam is administered by four members of the University community: the three members of the dissertation committee and an outside reader. The outside reader may be a faculty member at the University of Chicago, or a scientist at another institution. The outside reader must be approved by the thesis advisor. If, after the oral defense, all committee members approve the thesis, the student has met the Psychology Department's requirements for the PhD degree.

COGNITION PROGRAM

Research on cognition lies at the core of the study of many basic psychological mechanisms (e.g., recognition, attention, categorization, memory, inference) and in recent years, neuroimaging methods have been used to make enormous strides grounding these mechanisms in the brain. Work on cognitive mechanisms has been important in a number of other areas of psychology (e.g., Social Psychology and Developmental Psychology) and provides an important theoretical foundation for understanding higher order cognition including language use, reasoning, and problem solving.

Curriculum

There are three elements in the graduate curriculum of the Cognition Program.

1. Departmental curriculum. Students must complete the departmental core graduate curriculum.
2. Basic courses. Three basic courses. The following list includes possible courses, including those that are not offered every year. The purpose of this requirement is to develop a deeper understanding of the theories and methods used to scientifically study cognition, and how these approaches are central to many areas of psychological inquiry. Pre-approved courses are:

PSYC 31200 Systems Neuroscience

PSYC 32414: Cognitive Neuroscience

PSYC 35700: Psychology of Spoken Language

PSYC 37400 Human Memory

PSYC 38655: Environmental Neuroscience
 PSYC 40107 Behavioral Neuroscience
 PSYC 41000: Advanced Topics in Color Vision
 PSYC 41400: Evolutionary Cognitive Psychology
 PSYC 38300 Attention
 PSYC 43200 Seminar in Language Development
 PSYC 43600 Processes of Judgement and Decision Making
 PSYC 43650: The Development of Social Cognition

Students may also propose other courses, based on course offerings in a given year. Such student-proposed courses should be approved by the cognition area chair prior to taking them.

3. Advanced courses and seminars. Students are strongly encouraged to participate in advanced courses and seminars, particularly in their area of interest.

THE DEVELOPMENTAL PSYCHOLOGY PROGRAM

There is a strong history of work in developmental psychology at the University of Chicago. The goal of this program is to foster the continuing development of this area by providing a program of study for graduate students and a community of researchers who share an interest in how development occurs. The Developmental Psychology program offers graduate study which investigates child psychology from a variety of perspectives. Four major research areas make up the program: cognitive development, social and emotional development, language and communicative development, and biological development. Specific topics of research specialization include: vocabulary acquisition, the development of gesture and other forms of nonverbal communication, the development of discourse abilities, mathematical and number knowledge in infants and children, the effects of early brain damage on development, social cognitive development in infancy and early childhood, early emotional understanding, the development of autobiographical memory, parent child interaction, language socialization, cultural influences on development, and environmental effects on language development and school achievement. The emphasis is on the use of experimental and observational methods for the study of development.

Curriculum

In their third and fourth year students write a theoretical review relevant to their dissertation. Ideally, this review could be a publishable article, suitable for a journal such as a *Psychological Bulletin* or *Developmental Review* and will help in formulating the dissertation.

1. General course: PSYC 40500 Advanced Seminar in Developmental Psychology is required of all students in the program. A prerequisite for this course is that the student has already taken a survey course in developmental psychology.
2. An advanced course in three of four areas of Developmental Psychology. Certain seminars may also fulfill these requirements. Below are a few examples of courses that will fulfill these requirements. This is not a comprehensive list as course offerings change from year to year. Students may petition the developmental area chair to count courses not included on this list. Topics in Developmental Psychology along with an additional paper may, under special circumstances, be used towards one course satisfying this requirement, with permission of the developmental area chair.
 - a. Cognitive/Intellectual Development:
PSYC 42550 Topics in Cognitive Development; PSYC 33600 Development in Infancy; PSYC 42040 Seminar: Mathematical Development
 - b. Biological Development:
PSYC 31700 Developmental Biopsychology; PSYC 34900: Biopsychology of Attachment (D. Maestripiერი); PSYC 36660 Genes and Behavior; PSYC 44450 Developmental Social Neuroscience.
 - c. Language/Communicative Development: PSYC 43200 Seminar in Language Development; PSYC 35500: Language Socialization (J. Lucy).
 - d. Social/Emotional Development: PSYC 43650 The Development of Social Cognition; PSYC 34500 Developmental and Neuroscience Perspectives on Social Cognition.

Students are expected to take advanced courses and seminars, particularly in their area of interest, and to attend the weekly meeting of Topics in Developmental Psychology.

INTEGRATIVE NEUROSCIENCE

The notion that 100 billion neurons give rise to human behavior proved daunting up through the 20th Century because neuroscientists were limited by existing technologies to studying the properties of single neurons or small groups of neurons. Characterizing simple neural circuits has led to an understanding of a variety of sensory processes, such as the initial steps in vision, and motor processes, such as the generation of

locomotion patterns. However, unraveling the neural substrates of more complex behaviors, such as the ability to pay attention to relevant events in its surroundings or the ability to understand the likely events going through the mind of another, remains one of the major challenges for the neurosciences in the twenty-first century. In contrast to simple behaviors, these complex behaviors depend on interactions within a network of different brain structures. Studying the neural bases of complex behaviors, thus, requires an integrative neuroscience approach.

The Integrative Neuroscience graduate program at the University of Chicago is designed to provide the training and research opportunities for the next generation of behavioral, cognitive, and social neuroscientists. Behavioral, cognitive, and social neuroscience represent three complementary and partially overlapping aspects of this integrative neuroscience of mind and behavior. Behavioral neuroscience places an emphasis on the biological mechanisms underlying basic behavioral processes; cognitive neuroscience places an emphasis on the biological mechanisms underlying cognition, with a specific focus on the neural substrates of mental processes and their behavioral manifestations; and social neuroscience places an emphasis on the biological mechanisms underlying social processes and behavior, including the ability to perceive and communicate mental states including the beliefs and desires of others and to form and maintain interpersonal and group relationships. The University of Chicago is optimally positioned to meet this challenge because its unique academic structure facilitates interactions across disciplinary perspectives.

Curriculum

Students must complete the departmental core graduate curriculum.

As part of this curriculum and with one additional course, IN students complete:

1. Psychology Department Breadth Courses (2* courses)
*IN students will take two advanced courses within the Department of Psychology
2. Two of Four Core Neuroscience Courses (Cellular, Behavioral, Systems, Molecular) It is suggested that most students take at least Cellular and Behavioral, but we understand that needs depend on research focus.

IN students are encouraged to take additional advanced courses. The program offers the following advanced courses. All of these courses will not be offered every year.

- PSYC 33960 Biological Rhythms and Behavior
- PSYC 38300 Attention
- Advanced Cognitive Neuroscience (PSYC 38760)
- Neural Oscillations (PSYC 37150)
- Neuropsychopharmacology (PSYC 36901)
- PSYC 32000 Color Vision
- PSYC 37400 Human Memory or LM&C
- PSYC 33700 Perception and Action
- PSYC 33750 Seminar: Skill Acquisition and Sensorimotor Learning
- PSYC 33300 The Social Brain and Empathy
- Attitudes & Persuasion (Psc 46100)
- PSYC 35950 Stereotyping and Prejudice
- PSYC 34700 Social Cognition
- PSYC 35000 Physiology Of Vision
- PSYC 39000 Vision

Trial Research Project

Each student completes a Trial Research Project under the guidance of a faculty advisor. This is a significant piece of research carried out over a 12-month period. Both written and oral presentations of the research are required. The student will submit the trial research paper prior to the end of the Spring Quarter of the second year and defend the trial research paper at a hearing with his or her committee prior to the end of Spring Quarter of the second year. The oral examination will also probe the students' breadth and depth of knowledge associated with the completed coursework.

Doctoral Dissertation

The Doctoral Dissertation is an independent research project carried out under the guidance of a faculty Dissertation Committee with at least four members. At least two members of the committee, including the chair, must be in the Integrative Neuroscience program; a third member must be in the Department of Psychology. The chair of the committee typically is the primary research advisor. A written dissertation proposal is presented to the committee in advance of an oral Proposal Hearing.

A student is admitted to PhD Candidacy after successfully completing (i) all course requirements, (ii) written and oral presentations of the Trial Research Project, and (iii) an approved dissertation proposal (including oral defense).

The doctoral dissertation is submitted to the dissertation committee prior to a final oral defense (the "final oral examination"). The dissertation committee plus an outside reader, who may be a faculty member at the University of Chicago or a scientist at another institution, administer the final oral exam. The committee members and reader evaluate the dissertation in private after the oral exam. At most one abstention or vote to disapprove is allowed among the committee members and reader; all others must approve the dissertation to satisfy the requirements for the PhD degree.

THE SOCIAL PSYCHOLOGY PROGRAM

The general philosophy of the curriculum is to provide students with the requisite knowledge and skills to excel in mainstream, academic social psychology. In addition to Departmental requirements, graduate students in the University of Chicago Social Psychology Program must fulfill the following course requirements:

1. General Courses:
 - a. PSYC 40600 Advanced Seminar in Social Psychology: Introductory course in experimental social psychology. This course will also fulfill part of the core course requirements of the common graduate curriculum.
2. Topics in Experimental Social Psychology: An ongoing seminar taught collectively by the Core Faculty each quarter. Required of Social Area Students in Years 1-3. Please note: This course is neither required of Joint students nor is it available to them.
3. An advanced course or seminar in at least two of the following Areas of Emphasis:
 - Self
 - Social Cognition
 - Social and Cognitive Neuroscience
 - Decision Making
 - Attitudes and Affect
 - Stereotyping and Prejudice
 - Communication and Language Processes
 - Interpersonal Relations and Group Processes
 - Political Psychology
 - Cultural Psychology
4. PSYC 45200 Advanced Methods In Experimental Social Psychology plus two additional courses in advanced methods and statistics.
5. Finally, students are expected to take advanced courses and seminars in their area of interest.

PSYCHOLOGY COURSES

PSYC 30401. Psycholinguistics: Language Processing. 100 Units.

This is an advanced introduction to the field of psycholinguistics. We will do an in-depth overview of both the empirical findings and the methodologies used on various topics in language comprehension/production, including areas of speech perception, lexical processing, syntactic parsing, and semantic/pragmatic processing. Models at both the computational and the mechanistic levels will also be examined.

Instructor(s): Ming Xiang Terms Offered: Autumn

Equivalent Course(s): LING 30401

PSYC 31510. Neuroscience of Communication. 100 Units.

We will read and discuss communication and how various kinds of communication are mediated by neural systems. The course will cover theories, methods, and empirical findings in communication neuroscience. Topics will include speech and language, emotional information, face perception, gesture, and music.

Instructor(s): H. Nusbaum Terms Offered: Spring

Equivalent Course(s): PSYC 21510, NSCI 22500

PSYC 31600. Biopsychology of Sex Differences. 100 Units.

This course will explore the biological basis of mammalian sex differences and reproductive behaviors. We will consider a variety of species, including humans. We will address the physiological, hormonal, ecological and social basis of sex differences. To get the most from this course, students should have some background in biology, preferably from taking an introductory course in biology or biological psychology.

Instructor(s): Mateo, J. Terms Offered: Autumn

Equivalent Course(s): EVOL 36900, GNSE 30901, CHDV 30901

PSYC 31900. Language, Culture, and Thought. 100 Units.

Survey of research on the interrelation of language, culture, and thought from the evolutionary, developmental, historical, and culture-comparative perspectives with special emphasis on the mediating methodological implications for the social sciences.

Instructor(s): J. Lucy Terms Offered: Spring

Note(s): CHDV Distribution, B, C

Equivalent Course(s): CHDV 31901, ANTH 37605, ANTH 27605, PSYC 21950, CHDV 21901, LING 37605, LING 27605

PSYC 32411. Mediation, Moderation, and Spillover Effects. 100 Units.

This course is designed for graduate students and advanced undergraduate students from social sciences, statistics, health studies, public policy, and social services administration who will be or are currently involved in quantitative research. Research questions about why an intervention works, for whom, under what conditions, and whether one individual's treatment could affect other individuals' outcomes are often key to the advancement of scientific knowledge yet pose major analytic challenges. This course introduces cutting-edge theoretical concepts and methodological approaches with regard to mediation of intervention effects, moderated intervention effects, and spillover effects in a variety of settings. The course content is organized around six case studies. In each case, students will be involved in critical examinations of a working paper currently under review. Background readings will reflect the latest developments and controversies. Weekly labs will provide supplementary tutorials and hands-on experiences with mediation and moderation analyses. All students are expected to contribute to the knowledge building in class through participation in discussions. Students are encouraged to form study groups, while the two written assignments are to be finished and graded on an individual basis.

Instructor(s): G. Hong Terms Offered: Spring

Note(s): CHDV Distribution, Methods

Equivalent Course(s): CHDV 32411, STAT 33211, PBPL 29411, SOCI 30318, CCTS 32411

PSYC 32750. Advanced Topics in Chronobiology. 100 Units.

This seminar will explore the mechanisms by which circadian clocks influence the development and adult functioning of the brain to generate adaptive changes in behavior. In addition to being immersed in theoretical aspects of chronobiology, students will be trained in critical reading of primary research literature, the construction of testable hypotheses, and designing experiments to test these hypotheses. In addition to participating in weekly discussions, course members will survey the literature to determine how circadian issues affect how research is conducted across disciplines.

Instructor(s): B. Prendergast Terms Offered: Autumn

Prerequisite(s): Students should have taken or currently be taking PSYC 21750.

PSYC 33000. Cultural Psychology. 100 Units.

There is a substantial portion of the psychological nature of human beings that is neither homogeneous nor fixed across time and space. At the heart of the discipline of cultural psychology is the tenet of psychological pluralism, which states that the study of "normal" psychology is the study of multiple psychologies and not just the study of a single or uniform fundamental psychology for all peoples of the world. Research findings in cultural psychology thus raise provocative questions about the integrity and value of alternative forms of subjectivity across cultural groups. In this course we analyze the concept of "culture" and examine ethnic and cross-cultural variations in mental functioning with special attention to the cultural psychology of emotions, self, moral judgment, categorization, and reasoning.

Instructor(s): R. Shweder Terms Offered: Autumn

Prerequisite(s): Undergraduates must be in third or fourth year.

Note(s): CHDV Distribution: B, C

Equivalent Course(s): PSYC 23000, CHDV 31000, ANTH 35110, AMER 33000, GNSE 21001, GNSE 31000, CHDV 21000, ANTH 24320

PSYC 33165. Multidisciplinary Perspectives on Morality. 100 Units.

The past decade saw an explosion of empirical research in the study of morality. Among the most exciting and novel findings and theories, evolutionary biologists and comparative psychologists have shown that moral cognition has evolved to facilitate cooperation and smooth social interactions, and that certain components of morality are present in non-human animals. Developmental psychologists came up with ingenious paradigms, demonstrating that the elements that underpin morality are in place much earlier than we thought, and clearly in place before children turn two. Social neuroscientists have begun to map brain circuits implicated in moral decision-making and identify the contribution of neuropeptides to moral sensitivity. Changes in the balance of brain chemistry, or in connectivity between regions can cause changes in moral behavior. The lesson from all this new knowledge is clear: human moral behavior cannot be separated from human biology, its development, and past evolutionary history. As our understanding of the human brain improves, society at large, and justice and the law in particular, are and will be increasingly challenged. Discoveries in neuroscience will soon impact our legal system in ways that hopefully lead to a more cost-effective, humane and flexible system than we have today. The intent of this class is to provide an overview of the current research on the morality, and examine this topic from a range of relevant interdisciplinary perspectives.

Instructor(s): J. Decety Terms Offered: Autumn

Equivalent Course(s): PSYC 23165

PSYC 33660. The Psychopathic Mind: Mad or Bad? 100 Units.

This course introduces students to research into clinical neuroscience and psychiatric research and theories of psychopathy, as well as their implications for the justice system. Is psychopathy best described as a discrete category or a dimensional construct? Is psychopathy a disorder or an adaptation? What neural mechanisms underlie the various atypical aspects associated with psychopathy? Can psychopathy be detected in young children? Is antisocial behavior central to psychopathy or merely an epiphenomenon that is neither diagnostic of psychopathy nor specific to personality deviation? What can we learn about morality by studying psychopathy? Do individuals with psychopathy lack the ability to make moral judgment, or lack moral motivation? Should they be morally and legally responsible for their criminal behavior? Should the behavioral manifestations of psychopathy, such as the potential for danger or recidivism, be aggravating factors in sentencing?

Terms Offered: Spring

PSYC 34133. Neuroscience of Seeing. 100 Units.

This course focuses on the neural basis of vision, in the context of the following two questions: 1. How does the brain transform visual stimuli into neuronal responses? 2. How does the brain use visual information to guide behavior? The course covers signal transformation throughout the visual pathway, from retina to thalamus to cortex, and includes biophysical, anatomical, and computational studies of the visual system, psychophysics, and quantitative models of visual processing. This course is designed as an advanced neuroscience course for undergraduate and graduate students. The students are expected to have a general background in neurophysiology and neuroanatomy.

Instructor(s): W. Wei, J. Maunsell, M. Sherman, S. Shevell Terms Offered: Autumn

Prerequisite(s): NSCI 20111 or BIOS 24110 or consent of instructor

Equivalent Course(s): PSYC 24133, NSCI 22400, CPNS 34133, BIOS 24133, NURB 34133

PSYC 34410. Computational Approaches to Cognitive Neuroscience. 100 Units.

This course is concerned with the relationship of the nervous system to higher order behaviors (e.g., perception, object recognition, action, attention, learning, memory, and decision making). Psychophysical, functional imaging, and electrophysiological methods are introduced. Mathematical and statistical methods (e.g. neural networks and algorithms for studying neural encoding in individual neurons and decoding in populations of neurons) are discussed. Weekly lab sections allow students to program cognitive neuroscientific experiments and simulations.

Instructor(s): N. Hatsopoulos Terms Offered: Winter

Prerequisite(s): For Neuroscience Majors: NSCI 20110, NSCI 20130, BIOS 26210, and knowledge using Matlab, or consent of instructor.

Equivalent Course(s): BIOS 24232, NSCI 23600, CPNS 33200, ORGB 34650

PSYC 36210-36211. Mathematical Methods for Biological Sciences I-II.**PSYC 36210. Mathematical Methods for Biological Sciences I. 100 Units.**

This course builds on the introduction to modeling course biology students take in the first year (BIOS 20151 or 152). It begins with a review of one-variable ordinary differential equations as models for biological processes changing with time, and proceeds to develop basic dynamical systems theory. Analytic skills include stability analysis, phase portraits, limit cycles, and bifurcations. Linear algebra concepts are introduced and developed, and Fourier methods are applied to data analysis. The methods are applied to diverse areas of biology, such as ecology, neuroscience, regulatory networks, and molecular structure. The students learn computations methods to implement the models in MATLAB.

Instructor(s): D. Kondrashov Terms Offered: Autumn. L.

Prerequisite(s): BIOS 20151 or BIOS 20152 or equivalent quantitative experience by consent of instructor, and three quarters of a Biological Sciences Fundamentals sequence or consent of the instructor.

Equivalent Course(s): BIOS 26210, CPNS 31000

PSYC 36211. Mathematical Methods for Biological Sciences II. 100 Units.

This course is a continuation of BIOS 26210. The topics start with optimization problems, such as nonlinear least squares fitting, principal component analysis and sequence alignment. Stochastic models are introduced, such as Markov chains, birth-death processes, and diffusion processes, with applications including hidden Markov models, tumor population modeling, and networks of chemical reactions. In computer labs, students learn optimization methods and stochastic algorithms, e.g., Markov Chain, Monte Carlo, and Gillespie algorithm. Students complete an independent project on a topic of their interest.
 Instructor(s): D. Kondrashov Terms Offered: Winter. L.
 Prerequisite(s): BIOS 26210 or equivalent.
 Equivalent Course(s): CPNS 31100, BIOS 26211

PSYC 36211. Mathematical Methods for Biological Sciences II. 100 Units.

This course is a continuation of BIOS 26210. The topics start with optimization problems, such as nonlinear least squares fitting, principal component analysis and sequence alignment. Stochastic models are introduced, such as Markov chains, birth-death processes, and diffusion processes, with applications including hidden Markov models, tumor population modeling, and networks of chemical reactions. In computer labs, students learn optimization methods and stochastic algorithms, e.g., Markov Chain, Monte Carlo, and Gillespie algorithm. Students complete an independent project on a topic of their interest.
 Instructor(s): D. Kondrashov Terms Offered: Winter. L.
 Prerequisite(s): BIOS 26210 or equivalent.
 Equivalent Course(s): CPNS 31100, BIOS 26211

PSYC 36655. Advanced Topics in Epigenetics of the Brain. 100 Units.

Once considered a domain of cancer, we now recognize that epigenetic processes affect neurodevelopment, cognitive processes, mental disorders, and behavior. Epigenetic mechanisms are those that alter the function of the genome without altering the base sequence of genomic DNA (the As, Cs, Ts, and Gs we are familiar with), thus can be flexibly modified in response to the environment. In this seminar, we will explore a variety of epigenetic modifications, consider how they encode personal and transgenerational experiences, and examine how they direct brain function and behavior. Behavior can be understood on multiple levels and timescales; we will employ knowledge from the emerging field of epigenetics to shed more light into the black box of behavior.
 Instructor(s): S. London Terms Offered: Winter
 Note(s): Only fourth-year college students with permission

PSYC 37300-37900. Experimental Design I-II.

Experimental Design I-II

PSYC 37300. Experimental Design I. 100 Units.

This course covers topics in research design and analysis. They include multifactor, completely randomized procedures and techniques for analyzing data sets with unequal cell frequencies. Emphasis is on principles, not algorithms, for experimental design and analysis.
 Instructor(s): W. Bainbridge Terms Offered: Spring

PSYC 37900. Experimental Design II. 100 Units.

Experimental Design II covers more complex ANOVA models than in the previous course, including split-plot (repeated-measures) designs and unbalanced designs. It also covers analysis of qualitative data, including logistic regression, multinomial logit models, and log linear models. An introduction to certain advanced techniques useful in the analysis of longitudinal data, such as hierarchical linear models (HLM), also is provided. For course description contact Psychology.
 Instructor(s): TBA Terms Offered: Spring

PSYC 37400. Human Memory. 100 Units.

This course surveys the scientific study of human memory, emphasizing both theory and applications. Lectures will cover current research and methods in cognitive psychology and cognitive neuroscience, as well as historical precursors and classic studies. Topics include consciousness and nonconscious processes, corresponding neural systems, and various phenomena such as amnesia, memory distortion, mnemonics, and metacognition.
 Instructor(s): D. Gallo Terms Offered: Winter

PSYC 37700. Language, Culture, and Thought. 100 Units.

Survey of research on the interrelation of language, culture, and thought from the evolutionary, developmental, historical, and culture-comparative perspectives with special emphasis on the mediating methodological implications for the social sciences.
 Instructor(s): J. Lucy Terms Offered: Spring
 Note(s): CHDV Distribution, B, C
 Equivalent Course(s): LING 37700

PSYC 37950. Evolution and Economics of Human Behavior. 100 Units.

This course explores how evolutionary biology and behavioral economics explain many different aspects of human behavior. Specific topics include evolutionary theory, natural and sexual selection, game theory, cost-benefit analyses of behavior from an evolutionary and a behavioral economics perspective, aggression, power and dominance, cooperation and competition, biological markets, parental investment, life history and risk-taking, love and mating, physical attractiveness and the market, emotion and motivation, sex and consumer behavior, cognitive biases in decision-making, and personality and psychopathology.

Instructor(s): D. Maestriperi Terms Offered: Winter

Note(s): CHDV Distribution, A

Equivalent Course(s): ECON 14810, BIOS 29265, CHDV 37950, PSYC 27950, CHDV 27950

PSYC 40107. Behavioral Neuroscience. 100 Units.

This course provides an introduction to neuroethology, examining brain activity relative to behaviors and organisms evaluated from an adaptive and evolutionary perspective. It starts with a brief introduction to classical ethology, and then develops a series of example animal model systems. Both invertebrate and vertebrate models are considered although there is a bias towards the latter. Many of these are "champion" species. There is a heavier demand for reading original data papers than typical in introductory graduate level courses. An integral part of the course is a series of assignments where you develop grant proposals describing novel science experiments in the animal models, thereby challenging your knowledge of the material and teaching aspects of scientific writing. In recent years there has been more computational material presented. The course is not available to undergraduates without prior approval of the instructor.

Instructor(s): D. Margoliash Terms Offered: Spring

Note(s): The course is not available to undergraduates without prior approval of the instructor.

Equivalent Course(s): NURB 30107, CPNS 30107

PSYC 40301. Topics in Psychology. 000 Units.

Current research in psychology.

Instructor(s): D. Gallo Terms Offered: Autumn Spring Winter

Note(s): Registration by consent only.

PSYC 40450-40451-40452. Topics in Cognition I-II-III.

Broadly speaking, this workshop will address fundamental topics in cognitive psychology such as attention, memory, learning, problem solving, and language. One unique aspect of this workshop is that we will not only explore topics central to the study of cognition, but we will also explore how the study of cognitive psychology can be used to enhance human potential and performance in a variety of contexts. These contexts range from an exploration of optimal teaching practices to enhance the acquisition of mathematical knowledge in the classroom, to issues regarding how individuals communicate best to foster the optimal exchange of information in, for instance, medical settings, to the optimal strategies older adults can use to help stave off the deleterious effects of aging on cognitive functioning and the performance of everyday activities.

PSYC 40450. Topics in Cognition I. 100 Units.

Discussion of current research in psychology.

Instructor(s): M. Rosenberg

PSYC 40451. Topics in Cognition II. 100 Units.

Discussion of current research in psychology.

Instructor(s): M. Rosenberg

PSYC 40452. Topics in Cognition III. 100 Units.

Discussion of current research in psychology.

Instructor(s): M. Rosenberg

PSYC 40451. Topics in Cognition II. 100 Units.

Discussion of current research in psychology.

Instructor(s): M. Rosenberg

PSYC 40452. Topics in Cognition III. 100 Units.

Discussion of current research in psychology.

Instructor(s): M. Rosenberg

PSYC 40500. Advanced Seminar in Developmental Psychology. 100 Units.

This is an introductory course for graduate students in developmental psychology. Topics in biological, perceptual, cognitive, social, and language development will be covered. This course will satisfy one of Psychology graduate students' core course requirements.

Instructor(s): S. Levine, A. Shaw Terms Offered: Spring

PSYC 40710. Early Childhood: Human Capital Development and Public Policy. 100 Units.

This course is designed to provide an overview of current policy issues involving children and families, and will emphasize the scientific perspective of developmental psychology. The following topics will be addressed: family structure and child development, the role of the father in children's lives, poverty and family processes, maternal employment and child care, adolescent parenthood, neighborhood influences on families, and welfare reform. Theoretical perspectives and measurements, (e.g., the tools of the science), regarding how children develop from infancy to adulthood, will be stressed.

Instructor(s): Kalil, A Terms Offered: Winter

Equivalent Course(s): PPHA 40700, CHDV 40770

PSYC 40851-40852-40853. Topics in Developmental Psychology I-II-III.

Brown-bag discussion of current research in psychology.

PSYC 40851. Topics in Developmental Psychology I. 100 Units.

Brown-bag discussion of current research in psychology.

Instructor(s): A. Shaw Terms Offered: Autumn

PSYC 40852. Topics in Developmental Psychology II. 100 Units.

Brown-bag discussion of current research in psychology.

Instructor(s): S. Levine Terms Offered: Winter

Note(s): CHDV Distribution: 2*

PSYC 40853. Topics in Dev. Psy. 100 Units.

Brown-bag discussion of current research in psychology.

Instructor(s): TBD Terms Offered: Spring

Equivalent Course(s): CHDV 40853

PSYC 40852. Topics in Developmental Psychology II. 100 Units.

Brown-bag discussion of current research in psychology.

Instructor(s): S. Levine Terms Offered: Winter

Note(s): CHDV Distribution: 2*

PSYC 40853. Topics in Dev. Psy. 100 Units.

Brown-bag discussion of current research in psychology.

Instructor(s): TBD Terms Offered: Spring

Equivalent Course(s): CHDV 40853

PSYC 41610. Topics in Neurobiology Learning. 100 Units.

This seminar will focus on an examination of basic mechanisms of learning, both those that have been theoretically linked such as putative computational descriptions and cellular mechanisms, as well as those with clear empirical support. We will read and discuss a wide range of current studies examining evidence testing specific theories in the neurobiology of learning across levels of analysis and using comparative approaches. The course will emphasize recent findings in learning research and consider methodological and theoretic issues in designing new studies.

Instructor(s): H. Nusbaum Terms Offered: Autumn

PSYC 41660. Current Controversies in Cognition. 100 Units.

Nature vs. nurture, conscious and unconscious processing, automaticity and controlled processing, separate or integrated STM and LTM, modularity, and bottom-up vs. top-down processing are some of the controversies that continue to be discussed in cognition research. We will read and discuss theory and evidence and consider how such controversies might be resolved empirically and theoretically.

Instructor(s): H. Nusbaum Terms Offered: Spring

PSYC 41901. Advanced Topics in Language, Culture and Thought. 100 Units.

This course examines more intensively one or more of the topics discussed in CHDV 31901, Language, Culture, and Thought. Typically the course will concern the relationship between language developments in middle childhood and the emergence of higher order social and intellectual skills. Among the topics to be considered will be the role of language advances (e.g., reported speech, narrative structure, metapragmatics, etc.) in relation to cognitive growth (formal reasoning, theory of mind, etc.) especially as these relationships are mediated through institutional structures (e.g., education, standard language, etc.). Readings will include a mix of basic theory, contemporary literature reviews, and case studies.

Instructor(s): J. Lucy Terms Offered: Autumn

Prerequisite(s): CHDV 21901/31901, PSYC 21950/31900, ANTH 27605/37605, LING 27605/37605 or Permission of Instructor

Note(s): CHDV Distribution: C; 5*

Equivalent Course(s): CHDV 41900, ANTH 47605

PSYC 42100. Trial Research Seminar. 100 Units.

PSYC 42100 is required of first-year Psychology graduate students. The purpose of this seminar is to assist students in formulating their trial research project.

Instructor(s): S. London Terms Offered: Spring

PSYC 42150. Exploration and Learning in Childhood Development. 100 Units.

In this seminar, we will consider both classic and current work on the relation between active engagement and learning in children. Foundational work in developmental psychology by Piaget, Vygotsky and Dewey stressed the value of children's active engagement for their learning and cognitive growth. Current research offers a new lens on this classic idea, with new research examining the cognitive, neural and cultural factors that drive children's learning. The work of the seminar will focus on analysis of primary texts, both classic and contemporary, to identify the nature, richness and limits of active learning.

Instructor(s): A. Woodward Terms Offered: Spring

PSYC 42270. Advanced Topics in Electrophysiology I. 100 Units.

Graduate Seminar: Basics of conducting EEG and ERP research EEG recordings are a popular and long-standing approach to gather information about human brain activity that are used to address questions in many areas of Psychology. In this seminar, we will cover many of the basics of conducting human EEG research, including basic principles of recordings (e.g., detection and removal of artifacts, baseline correction, filtering and averaging) along with basic analytical approaches to measuring EEG (e.g., calculating and measuring ERPs; time-frequency analyses, etc). We will also cover research that has utilized EEG signals from multiple research domains, with the aim of giving the student exposure to a wide swath of well characterized neural tools from the existing literature. Throughout the course, we will emphasize how best to design experiments that can yield robust and interpretable data and avoid the common pitfalls in using this powerful approach.

Instructor(s): E. Awh, E. Vogel Terms Offered: Autumn

PSYC 42271. Advanced Topics in Electrophysiology II. 100 Units.

Advanced seminar on EEG analysis.

Instructor(s): E. Awh and E. Vogel Terms Offered: Winter

Note(s): Please contact instructors for permission to register.

PSYC 42272. Advanced Topics in Electrophysiology III. 100 Units.

An advanced seminar on EEG analysis. Please contact instructors for permission to register.

Instructor(s): E. Awh and E. Vogel Terms Offered: Spring

PSYC 42530. Advanced Topics in Human Neuroimaging. 100 Units.

This course will discuss advanced topics in human neuroimaging, reviewing recent papers using state-of-the-art methods, including multi-voxel pattern analysis, Big Data, connectivity analyses, and inter-subject correlations. We will discuss how these new methods fit into the current landscape of human neuroscience and support new theoretical ideas, and also conduct tutorials so students can use these methods in their own analyses.

Instructor(s): W. Bainbridge, M. Rosenberg Terms Offered: Spring

Note(s): Instructor consent required.

PSYC 43130. Stress and the Social Brain. 100 Units.

This course explores the topic of social stress and its influence on behavior and neurobiology. The course will provide in-depth coverage of the psychophysiology of the stress response and how it is modulated across social contexts. The material in the course will be presented in a seminar-style format. The primary goal of the course is to provide students with a high-level understanding of the complexities associated with contemporary stress research from the perspective of social neuroscience and psychophysiology.

Instructor(s): G. Norman Terms Offered: Autumn

PSYC 43600. Processes of Judgement and Decision Making. 100 Units.

This course offers a survey of research on judgment and decision making, with emphasis placed on uncertainty and (intrapersonal) conflict. An historical approach is taken in which the roots of current research issues and practices are traced. Topics are drawn from the following areas: evaluation and choice when goals are in conflict and must be traded off, decision making when consequences of the decision are uncertain, predictive and evaluative judgments under conditions of uncertain, incomplete, conflicting, or otherwise fallible information.

Instructor(s): W. Goldstein Terms Offered: Autumn

Equivalent Course(s): CHDV 43600

PSYC 44000. Moral Psychology & Comparative Ethics. 100 Units.

Three types of questions about morality can be distinguished: (1) philosophical, (2) psychological, and (3) epidemiological. The philosophical question asks, whether and in what sense (if any) "goodness" or "rightness" are real or objective properties that particular actions possess in varying degrees. The psychological question asks, what are the mental states and processes associated with the human classification of actions as moral or immoral, ethical or unethical. The epidemiological question asks, what is the actual distribution of moral judgments across time (developmental time and historical time) and across space (for example, across cultures). In this seminar we will read classic and contemporary philosophical, psychological, and anthropological texts that address those questions.

Instructor(s): R. Shweder Terms Offered: Autumn

Prerequisite(s): Advanced undergraduates may enroll with permission of instructor

Note(s): CHDV Distribution: B, C; 3

Equivalent Course(s): CHDV 45601

PSYC 45300. When Cultures Collide: Multiculturalism in Liberal Democracies. 100 Units.

Coming to terms with diversity in an increasingly multicultural world has become one of the most pressing public policy projects for liberal democracies in the early 21st century. One way to come to terms with diversity is to try to understand the scope and limits of toleration for variety at different national sites where immigration from foreign lands has complicated the cultural landscape. This seminar examines a series of legal and moral questions about the proper response to norm conflict between mainstream populations and cultural minority groups (including old and new immigrants), with special reference to court cases that have arisen in the recent history of the United States.

Instructor(s): Richard Shweder Terms Offered: Winter

Equivalent Course(s): GNSE 45600, CHDV 45699, HMRT 35600, ANTH 45600, KNOW 45699

PSYC 47001-47002. Language in Culture I-II.

This two-quarter course presents the major issues in linguistics of anthropological interest. These courses must be taken in sequence.

PSYC 47001. Language In Culture I. 100 Units.

Among topics discussed in the first half of the sequence are the formal structure of semiotic systems, the ethnographically crucial incorporation of linguistic forms into cultural systems, and the methods for empirical investigation of "functional" semiotic structure and history.

Instructor(s): M. Silverstein Terms Offered: Autumn

Prerequisite(s): Consent of instructor

Note(s): CHDV Distribution: 5*

Equivalent Course(s): LING 31100, ANTH 37201, CHDV 37201

PSYC 47002. Language in Culture II. 100 Units.

The second half of the sequence takes up basic concepts in sociolinguistics and their critique.

Instructor(s): S. Gal Terms Offered: Winter. Winter 2020

Prerequisite(s): Language in Culture-I

Note(s): CHDV Distribution: 5*

Equivalent Course(s): ANTH 37202, CHDV 37202, LING 31200

PSYC 47002. Language in Culture II. 100 Units.

The second half of the sequence takes up basic concepts in sociolinguistics and their critique.

Instructor(s): S. Gal Terms Offered: Winter. Winter 2020

Prerequisite(s): Language in Culture-1

Note(s): CHDV Distribution: 5*

Equivalent Course(s): ANTH 37202, CHDV 37202, LING 31200

PSYC 47500. Survey Questionnaire Design. 100 Units.

The questionnaire has played a critical role in gathering data used to assist in making public policy, evaluating social programs, and testing theories about social behavior (among other uses). This course offers a systematic way to construct and evaluate questionnaires. We will learn to think about survey questions from the perspective of the respondent and in terms of cognitive and social tasks that underlie responding. We will examine the impact of questions on data quality and will review past and recent methodological research on questionnaire development. The course will help students to tell the difference between better and worse types of survey questions, find and evaluate existing questions on different topics, and construct and test questionnaires for their own needs. Prerequisites: Graduate standing (no undergraduate standing). Students enrolled in this class are expected to have completed at least one course on research methods. Some background in psychology is helpful, but it is not required.

Instructor(s): Bautista, R Terms Offered: Spring

Equivalent Course(s): SSAD 57500, PPHA 41800

PSYC 48000. Proseminar in Psychology. 100 Units.

Required of first-year Department of Psychology graduate students. Department of Psychology faculty members present and discuss their research. This introduces new students to the range of research areas in the department.

Instructor(s): H. Nusbaum Terms Offered: Autumn

PSYC 48001-48002-48003. Mind and Biology Proseminar I-II-III.

Seminar series at the Institute for Mind and Biology meets three to four times per quarter. Sign up for three quarters; receive credit at the end of Spring Quarter.

PSYC 48001. Mind and Biology Proseminar I. 000 Units.

Students receive credit in spring quarter after attending 3 quarters of seminars.

Instructor(s): S. Shevell Terms Offered: Autumn

Equivalent Course(s): CHDV 48001

PSYC 48002. Mind and Biology Proseminar 2. 000 Units.

Seminar series at the Institute for Mind and Biology meets three to four times per quarter. Sign up for three quarters; receive credit at the end of Spring Quarter.

Instructor(s): S. Shevell Terms Offered: Winter

Equivalent Course(s): CHDV 48002

PSYC 48003. Mind and Biology Proseminar 3. 100 Units.

Seminar series at the Institute for Mind and Biology meets three to four times per quarter. Sign up for three quarters; receive credit at the end of Spring Quarter.

Instructor(s): S. Shevell Terms Offered: Spring

Equivalent Course(s): CHDV 48003

PSYC 48002. Mind and Biology Proseminar 2. 000 Units.

Seminar series at the Institute for Mind and Biology meets three to four times per quarter. Sign up for three quarters; receive credit at the end of Spring Quarter.

Instructor(s): S. Shevell Terms Offered: Winter

Equivalent Course(s): CHDV 48002

PSYC 48003. Mind and Biology Proseminar 3. 100 Units.

Seminar series at the Institute for Mind and Biology meets three to four times per quarter. Sign up for three quarters; receive credit at the end of Spring Quarter.

Instructor(s): S. Shevell Terms Offered: Spring

Equivalent Course(s): CHDV 48003

PSYC 48412. Publications, Grants, and the Academic Job Market. 100 Units.

In this graduate seminar we will discuss how to write and publish scientific articles, prepare grant applications, write CVs and job applications, and give job talks and interviews. In other words, everything you always wanted to know about being successful in academia but were afraid to ask.

Instructor(s): D. Maestriperi Terms Offered: Autumn

Equivalent Course(s): EVOL 48412, CHDV 48412

PSYC 48414. Evolution of Human Development. 100 Units.

In this graduate seminar we will read and discuss seminar theoretical and empirical articles that address aspects of human lifespan development from an evolutionary perspective. Topics include: developmental plasticity, life history, sex differences, childhood and juvenility, puberty and adolescence, gene-environment interactions, attachment, parent-offspring conflict, and neurobiological mechanisms.

Instructor(s): D. Maestriperi Terms Offered: Autumn

Note(s): CHDV Distribution: 1*, 2*

Equivalent Course(s): CHDV 48414

PSYC 49700. Readings: Psychology. 100 Units.

PSYC 49800. Research: Psychology. 300.00 Units.

PSYC 70000. Advanced Study: Psychology. 300.00 Units.

Advanced Study: Psychology



THE JOHN U. NEF COMMITTEE ON SOCIAL THOUGHT

Department Website: <http://socialthought.uchicago.edu>
Chair

- Robert Pippin

Professors

- Lorraine Daston
- Wendy Doniger
- Joel Isaac
- Hans Joas
- Gabriel Lear
- Jonathan Lear
- Jean Luc Marion
- Heinrich Meier
- Glenn W. Most
- David Nirenberg
- Thomas Pavel
- Mark Payne
- Robert B. Pippin
- Andrei Pop
- Haun Saussy
- Laura Slatkin
- Nathan Tarcov
- Rosanna Warren
- David Wellbery

Emeriti

- Leon Kass
- Joel Kraemer
- Ralph Lerner
- James M. Redfield
- David Tracy

The John U. Nef Committee on Social Thought was established as a degree granting body in 1941 by the historian John U. Nef (1899-1988), with the assistance of the economist Frank Knight, the anthropologist Robert Redfield, and Robert M. Hutchins, then President of the University. The Committee is a group of diverse scholars sharing a common concern for the unity of the human sciences. Their premises were that the serious study of any academic topic, or of any philosophical or literary work, is best prepared for by a wide and deep acquaintance with the fundamental issues presupposed in all such studies, that students should learn about these issues by acquainting themselves with a select number of classic ancient and modern texts in an inter-disciplinary atmosphere, and should only then concentrate on a specific dissertation topic. It accepts qualified graduate students seeking to pursue their particular studies within this broader context, and aims both to teach precision of scholarship and to foster awareness of the permanent questions at the origin of all learned inquiry.

The primary themes of the Committee's intellectual life have continued to be literature, religion, philosophy, politics, history, art and society. The Committee differs from the normal department in that it has no specific subject matter and is organized neither in terms of a single intellectual discipline nor around any specific interdisciplinary focus. It exists to bring together scholars in a variety of fields sharing a concern with basic and trans-disciplinary issues, and to enable them to work in close intellectual association with other like-minded graduate students seeking to pursue their particular studies in this broader context. Inevitably, the faculty of the Committee does not encompass within itself the full range of intellectual disciplines necessary for these studies, and the fields represented by the faculty have changed substantially during the Committee's history. Students apply to work with the faculty who are here at any particular time and, where appropriate, with other faculty at the University of Chicago. Although it offers a variety of courses, seminars, and tutorials, it does not require specific courses. Rather, students, with the advice of Committee faculty, discover the points at which study in established disciplines can shape and strengthen their research, and they often work closely with members of

other departments. Through its several lecture and seminar series, the Committee also seeks to draw on the intellectual world beyond the University.

Students admitted to the Committee work toward the Ph.D. There are three principal requirements for this degree: the fundamentals examination, the foreign language examination and the dissertation. Study for the fundamental exam centers on twelve to fifteen books, selected by the student in consultation with the faculty. Each student is free to draw from the widest range of works of imaginative literature, religious thought, philosophy, history, political thought, and social theory and ranging in date from classical times to the twentieth century. Non-Western books may also be included. Study of these fundamental works is intended to help students relate their specialized concerns to the broad themes of the Committee's intellectual life. Some of the student's books will be studied first in formal courses offered by faculty, though books may also be prepared through reading courses, tutorials, or independent study.

Preparation for the fundamentals examination generally occupies the first two or three years of a student's program, together with appropriate philological, statistical, and other disciplinary training.

After successful completion of the fundamentals examination, the student writes a dissertation under faculty supervision on an important topic using appropriately specialized skills. A Committee on Social Thought dissertation is expected to combine exact scholarship with broad cultural understanding and literary merit. In lieu of an oral defense, a public lecture on an aspect of their research of general interest to the scholarly community is to be given.

As a partial guide, and to suggest the variety of possible programs, there follows a list of titles of some of the dissertations accepted by the Committee since 1994:

- Heidegger's Polemics: From Being to Politics
- Nature's Artistry: Goethe's Science and *Die Wahlverwandschaften*
- Nietzsche's Schopenhauer: The Peak of Modernity and the Problem of Affirmation
- Feminism and Liberalism: The Problem of Equality
- A Hesitant Dionysos: Nietzsche and the Revelry of Intuition
- Conrad's Case Against Thinking
- Reading the Republic as Plato's Own Apology
- Cartesian Theodicy: Descartes Quest for Certitude
- Plato's Gorgias and the Power of Speech and Reason in Politics
- World Government and the Tension between Reason and Faith in
- Dante Alighieri's *Monarchia*
- A House Divided: The Tragedy of Agamemnon
- Eros and Ambition in Greek Political Thought
- Natural Ends and the Savage Pattern: The Unity of Rousseau's Thought
- Revisited
- A Sense of Place. Reading Rousseau: The Idea of Natural Freedom
- Churchill's Military Histories: A Rhetorical Study
- A Nation of Agents: The Making of the American Social Character
- The Problem of Religion in Spinoza's *Tractatus Theologico Politicus*
- A Great Arrangement of Mankind: Edmund Burke's Principles and Practice of Statesmanship
- The Dance of the Muses
- Tocqueville Unveiled: A Historian and his Sources in *L Ancien Régime et la Révolution*
- The Search for Biological Causes of Mental Illness
- War, Politics, and Writing in Machiavelli's *Art of War*
- Plato's Laws on the Roots and Foundation of the Family
- The Philosophy of Friendship: Aristotle and the Classical Tradition on Friendship and Self Love
- Regions of Sorrow: Spaces of Anxiety and Messianic Time in Hannah Arendt and W.H. Auden
- Converting the Saints: An Investigation of Religious Conflict using a Study of Protestant Missionary Methods in an Early 20th Century Engagement with Mormonism
- The Significance of Art in Kant's *Critique of Judgment*
- Historicism and the Theory of the Avant Garde
- Human Freedom in the Philosophy of Pierre Gassendi
- Taking Her Seriously: Penelope and the Plot of Homer's *Odyssey*
- Karna in the Mahabharata

- Hegel on Mind, Action, and Social Life: The Theory of Geist as a Theory of Explanation. Liberalism in the Shadow of Totalitarianism: The Problem of Authority and Values Since World War Two
- Nietzsche's *Problem of Socrates and Plato's Political Psychology*
- Tocqueville's *New Political Science: A Critical Assessment of Montesquieu's Vision of a Liberal Modernity*
- Magnanimity and Modernity: Self Love in the Scottish Enlightenment
- Hegel's Conscience: Radical Subjectivity and Rational Institutions
- Religious Zeal, Political Faction and the Corruption of Morals: Adam Smith and the Limits of Enlightenment
- This Distracted Globe: Hamlet and the Misgivings of Early Modern Memory
- Teaching the Contemplative Life: The Psychagogical Role of the Language of Theoria in Plato and Aristotle
- The Allegory of the Island: Solitude, Isolation, and Individualism in the Writings of Jean Jacques Rousseau
- The Convergence of Homer's *Odyssey* and Joyce's *Ulysses*
- The Curiosity of the Idle Reader: Self Consciousness in Renaissance Epic
- Bacon on Virtue: The Moral Philosophy of Nature's Conqueror
- Picturing the Path: The Visual Rhetoric of Barabudur
- Collecting Objects/Excluding People: Chinese Subjects and the American Art Discourse 1870-1900
- From Religionskrieg to Religionsgesprach: The Theological Path of Boden's Colloquium Heptaplomeres
- The Problem of Autonomy in the Thought of Montaigne
- The Virtue of the Soul and the Limits of Human Wisdom: The Search for *SÔPHROSUNË* in Plato's *Charmides*
- Nietzsche's "Fantastic Commentary": On the Problem of Self-Knowledge
- Erotic Uncertainty: Towards a Poetic Psychology of Literary Creativity
- Cruelty: On the Limits of Humanity
- Hamletian Romanticism: Social Critique and Literary Performance from Wordsworth to Trollope
- Hamlet's Arab Journey: Adventures in Political Culture and Drama 1952-2002
- Acquiring "Feelings that do not Err": Moral Deliberation and the Sympathetic Point of View in the Ethics of Dai Zhen
- The Contest of Regimes and the Problem of Justice: Political Lessons from Aristotle's *Politics*
- Socrates and the Second Person: The Craft of Platonic Dialogue
- In the Grip of the Future: The Tragic Experience of Time
- Thucydides on the Political Soul: Pericles, Love of Glory, and Freedom
- Connecting Agency and Morality in Kant's Moral Theory
- Tocqueville and the Question of the Nation
- Pierre Bayle's "Machiavellianism"
- The Burial of Hektor: The Emergence of the Spiritual World of the Polis in the *Iliad*
- Hegel's Defense of Moral Responsibility
- Dostoevsky, Madness, and Religious Fervor: Reason and its Adversaries
- The Uses of Boredom
- Two Loves, Two Cities: *Intellectus* and *Voluntas* in Augustine's *Political Thought*
- Power and Goodness: Leibniz, Locke and Modern Philosophy
- Soren Kierkegaard and the Very Idea of Advance Beyond Socrates
- Between City and Empire: Political Ambition and Political Form in Plutarch's *Parallel Lives*
- Gluttony and Philosophical Moderation in Plato's *Republic*
- Plato's Immoralists and their Attachment to Justice: A Look at Thrasymachus and Callicles
- The Great Law of Change: Edmund Burke, Thomas Paine, and the Meaning of the Past in a Democratic Age
- Devil's Advocate: Politics and Morality in the Work of Carl Schmitt
- Relation without Relation: Emily Dickinson – Maurice Blanchot
- Perfecting Adam: The Perils of Innocence in the Modern Novel
- Stubborn Against the Fact: Literary Ideals, Philosophy and Criticism
- One Man Show: Poiesis and Genesis in the *Iliad* and *Odyssey*
- Political Theology in Eric Voegelin's Philosophy of History
- The Ancient Quarrel Unsettled: Plato and the Erotics of Tragic Poetry

- Heroic Action and Erotic Desire in Sidney, Spenser, and Shakespeare
- Dostoevsky and Suicide: A Study of the Major Characters
- The Aesthetics of Ambivalence - Pirandello, Schopenhauer, and the Transformation of the European Social Imaginary
- Desire and Democracy - Spinoza and the Politics of Affect
- The Multiplicity of Scripture - The Confluence of Textual Traditions in the Making of the Antwerp Polyglot Bible (1568-1573)
- Intelligence Incarnate: The Logic of Recognition in Hegel's Phenomenology of Spirit
- King Lear and its Folktale Analogues
- Can There be Philosopher-Kings in a Liberal Polity? A Reinterpretation and Reappropriation of the Ideal Theory in Plato's Republic
- Intelligence Incarnate: The Logic of Recognition in Hegel's Phenomenology of Spirit
- King Lear and its Folktale Analogues
- Can There be Philosopher-Kings in a Liberal Polity? A Reinterpretation and Reappropriation of the Ideal Theory in Plato's Republic
- Towards an Ethical Literature: Character Narration and Extended Subjectivity in the work of Robert Musil
- Modes of Valuation in Early Greek Poetry
- God in the Years of Fury: Theodicy and Anti-Theodicy in the Holocaust Writings of Rabbi Kalonymus Kalman Shapira
- Rousseau's Natural Man: Emile and Politics
- Existence and Temporality in Spinoza
- Explorations in Elegiac Space: Schiller, Nietzsche, Rilke
- Language, Necessity, and Human Nature in Thucydides' History
- Speculation and Civilization in the Social Philosophy of Alfred North Whitehead
- Caught between City, Empire, and Religion: Alfarabi's Concept of the Umma
- Elizabeth Anscombe's Wittgensteinian Third Way in Philosophy of Mind: A Thomist Critique
- Different Therapies: David Foster Wallace's Philosophical Fiction
- Freedom, Feeling and Character: The Unity of Reason and Sensibility in Kant's Practical Philosophy
- Paul Claudel's "Cinq Grandes Odes:" A Translation and Commentary
- Political Freedom Between Arendt and Foucault
- Technocratic Evolution: Experimental Naturalism and American Biopolitics around 1900
- Kierkegaard on Decision and Married Love

AREAS OF STUDY

Work with the Committee is not limited as to subject matter. Any serious program of study, based on the Fundamentals Examination, culminating in a scholarly doctoral dissertation, and requiring a framework wider than that of a specialized department, may be appropriate. In practice, however, the Committee is unwilling to accept a student for whom it is unable to provide competent guidance in some special field of interest, either from its own ranks or with the help of other members of the University.

ADMISSION

Students in the Committee have unusual scope for independent study, which means that successful work in Social Thought requires mature judgment and considerable individual initiative. Naturally, the Committee wishes to be reasonably confident of an entering student's ability to make the most of the opportunities the Committee offers and to complete the program of study. Hence, we request that the personal statement required by the University application should take the form of a letter to the Committee which addresses the following questions: What intellectual interests, concerns, and aspirations lead you to undertake further study and why do you want to pursue them with the Committee? What kind of work do you propose to do here? (If you can, include your intentions for the Fundamentals requirement, further language study, and dissertation research.) How has your education to date prepared you? In addition, you should include a sample of your best written work, preferably relevant to the kind of work you propose to do at the Committee, though you may also include a short sample of fiction or poetry in addition. Should we consider the evidence submitted to be insufficient, we may ask you to add to it. Applicants are also required to take the Graduate Record Examination.

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <https://apply-ssd.uchicago.edu/apply/>.

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415.

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

For additional information about the Social Thought program, please call 773-702-8410.

COURSES

The department website offers descriptions of graduate courses scheduled for the current academic year: <http://socialthought.uchicago.edu/page/social-thought-courses-descriptions>. Or you may email the Committee directly com-soc-tht@uchicago.edu and request a copy of the current course schedule.

SOCIAL THOUGHT COURSES

SCTH 30004. Law and Narrative: The Torah. 100 Units.

The Torah (aka Pentateuch or Five Books of Moses) is both a code of law and the narrative of a people's relationship to God. This course will consider the significance of this curious blending.
Equivalent Course(s): FNLD 20104

SCTH 30103. Tractarian Themes in the History of Philosophy. 100 Units.

The course will take up a number of themes that are central to Wittgenstein's *Tractatus* as they arise in the history of philosophical thought about logic—themes that arise out of questions such as the following: What is the status of the basic law(s) of logic? Is it possible to draw a limit to logical thought? What is the status of the reflecting subject of logical inquiry? What is the relation between the logical and the psychological? What, if anything, is the relation between the following two inquiries into forms of unity: "What is the unity of the judgment (or the proposition)?" and "What is the unity of the judging subject?" What (if any) sort of distinction between form and matter is relevant to logic? How should one understand the formality of logic? How, and how deeply, does language matter to logic? Topics will include various aspects of Aristotle's logical theory and metaphysics, Descartes's Doctrine of the Creation of Eternal Truth, Kant on Pure General and Transcendental Logic, Frege on the nature of a proper *Begriffsschrift* and what it takes to understand what that is, and early Wittgenstein's inheritance and treatment of all of the above. Secondary readings will be from Jan Lukasiewicz, John MacFarlane, Clinton Tolley, Sebastian Roedel, Matt Boyle, John McDowell, Elizabeth Anscombe, Cora Diamond, Peter Geach, Matthias Haase, Thomas Ricketts, and Peter Sullivan. (III)
Instructor(s): J. Conant, I. Kimhi
Terms Offered: Winter
Equivalent Course(s): PHIL 30117, PHIL 20117

SCTH 30104. Introduction to Metaphysics: Existence, Truth, Activity. 100 Units.

Equivalent Course(s): PHIL 23007, PHIL 33007

SCTH 30105. Introduction to Spinoza's Ethics. 100 Units.

As we read this work we will be concerned with its place in history of philosophy and we shall engage with some of its contemporary readers.
Equivalent Course(s): PHIL 37202, PHIL 27202

SCTH 30108. The Children of Parmenides. 100 Units.

Plato honors Parmenides with the title "father Parmenides", presumably for being the founder of philosophy as the "logical" study of being and thinking. In this course we shall discuss the struggle of ancient and modern philosophers to come to terms with this powerful heritage -- in particular, we shall focus on the elaboration, reception and criticism of Parmenides' theses that being and thinking are the same, and that talk of negation or falsity is incoherent or empty. Among the philosophers whose work we shall discuss are Plato, Aristotle, Frege, Russell, and Wittgenstein.
Equivalent Course(s): PHIL 21113, PHIL 31113

SCTH 30109. The Practical-Theoretical Difference" 100 Units.

Equivalent Course(s): PHIL 27504, PHIL 37504

SCTH 30215. The End of Life. 100 Units.

Aristotle taught that happiness, or *eudaimonia*, is the end of human life, in the sense that it is what we should strive for. But, in another sense, death is the end of life. This course will explore how these two "ends" - happiness and death - are related to each other. But it will do so in the context of a wider set of concerns. For, it is not only our individual lives that come to an end: ways of life, cultural traditions, civilizations and epochs of human history end. We now live with the fear that human life on earth might end. How are we to think about, and live well in relation to, ends such as these? Readings from Aristotle, Marx, Engels, Freud, Heidegger, and Arendt.
Instructor(s): A. Ford; J. Lear
Terms Offered: Spring
Prerequisite(s): For Graduates: By permission of instructor.
Equivalent Course(s): PHIL 30215, PHIL 20215

SCTH 30924. Science, Modernity, and Anti-Modernity. 100 Units.

Equivalent Course(s): HIST 44905, CHSS 30924

SCTH 30925. The Humanities as a Way of Knowing. 100 Units.

Despite intertwined histories and many shared practices, the contemporary humanities and sciences stand in relationships of contrast and opposition to one another. The perceived fissure between the "Two Cultures" has been deepened by the fact that the bulk of all history and philosophy of science has been devoted to the natural sciences. This seminar addresses the history and epistemology of what in the nineteenth century came to be called the "sciences" and the "humanities" since the Renaissance from an integrated perspective. The historical sources will focus on shared practices in, among others, philology, natural history, astronomy, and history. The philosophical source will develop an epistemology of the humanities: how humanists know what they know. Equivalent Course(s): HIST 29517, KNOW 40303, PHIL 20925, CHSS 30925, CLAS 37316, HIST 39517, PHIL 30925

SCTH 30926. Wonder, Wonders, and Knowing. 100 Units.

In wonder is the beginning of philosophy," wrote Aristotle; Descartes also thought that those deficient in wonder were also deficient in knowledge. But the relationship between wonder and inquiry has always been an ambivalent one: too much wonder stupefies rather than stimulates investigation, according to Descartes; Aristotle explicitly excluded wonders as objects of inquiry from natural philosophy. Since the sixteenth century, scientists and scholars have both cultivated and repudiated the passion of wonder; ON the one hand, marvels (or even just anomalies) threaten to subvert the human and natural orders; on the other, the wonder they ignite fuels inquiry into their causes. Wonder is also a passion tinged with the numinous, and miracles have long stood for the inexplicable in religious contexts. This seminar will explore the long, vexed relationship between wonder, knowledge, and belief in the history of philosophy, science, and religion.

Instructor(s): Lorraine Daston Terms Offered: Spring. Course to be taught Spring 2020

Prerequisite(s): Reading knowledge of at least one language besides English, some background in intellectual history. Consent is required for both grads and undergrads. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): PHIL 30926, HIST 35318, KNOW 30926, HIST 25318, CHSS 30936

SCTH 30927. Knowledge as a Platter: Comparative Perspectives on Knowledge Texts in the Ancient World. 100 Units.

In various ancient cultures, sages created the new ways of systematizing what was known in fields as diverse as medicine, politics, sex, dreams, and mathematics. These texts did more than present what was known; they exemplified what it means to know - and also why reflective, systematic knowledge should be valued more highly than the knowledge gained from common sense or experience. Drawing on texts from Ancient India, Greece, Rome, and the Near East, this course will explore these early templates for the highest form of knowledge and compare their ways of creating fields of inquiry: the first disciplines. Texts include the Arthashastra, the Hippocratic corpus, Deuteronomy, the Kama Sutra, and Aristotle's *Parva naturalia*.

Equivalent Course(s): SALC 30927, HREL 30927, CHSS 30927, KNOW 31415

SCTH 30928. Thinking the Present through the Past: Classic Works of History since 1750. 100 Units.

As proudly empirical as the sciences, as interpretive as the humanities, and as analytical as the social sciences, history as the pursuit of knowledge about the past resists classification. Because all history is written through the lens of the present, most works of history cease to be read after a generation, especially during the modern period, as the pace of change accelerated. In this seminar we will read some of the exceptions, including works by Kant, Tocqueville, Michelet, cCassirer, Huizinga, Lovejoy, and Frances Yates, to understand how powerful vision of the past can transcend its own present.

Instructor(s): Lorraine Daston Terms Offered: Spring. This course will be taught spring 2019.

Prerequisite(s): Seminar - primarily graduate students; all students require the permission of the instructor.

Equivalent Course(s): KNOW 30928, HIST 45002, CHSS 30928

SCTH 31210. The Iliad. 100 Units.

In this course we will read the *ILIAD* in translation, supplemented by selections from the *ODYSSEY* and other texts from the archaic period, including the Epic Cycle fragments and the Hesiodic *CATALOGUE OF WOMEN*. We will also make some turns toward recent Iliadic ventures in English: not least Christopher Logue's *WAR MUSIC* and Alice Oswald's *MEMORIAL*. "The poem of force" according to Simone Weil, the *ILIAD* is also the poem of marriage, homosociality/the "Mannerbund", and exchange. Among our concerns will be: the poetics of traditionality; the political economy of epic; the *ILIAD*'s construction of social order; the uses of reciprocity; gender in the Homeric poems. Although no knowledge of Greek s required for this course, there will be assignment options for those who wish to do reading in Greek.

Instructor(s): Laura Slatkin Terms Offered: Spring. course will be taught spring 2020

Prerequisite(s): Requirements: weekly readings; response paper for each class meeting; final paper.

Equivalent Course(s): CLAS 44300, FNDL 21214

SCTH 31221. Antigone. 100 Units.

Equivalent Course(s): GREK 45808, CMLT 31221

SCTH 31223. Homer's *Odyssey*: Estrangement and Homecoming' 100 Units.

One of the two foundational epics of so-called Western Culture, the *Odyssey* features a wily hero whose journeys are extraordinary and whose longing for home is unbounded. The *Odyssey* offers a complex meditation on brotherhood, bestiality, sexuality, kinship, and power; it is the great epic of cross-cultural encounter, in all its seductive and violent aspects, as well as the great poem of marriage. An adventure in *nostos* (homecoming), the *Odyssey* shows us the pleasures and dangers of voyaging among strangers. Constantly exploring the boundaries between the civilized and the savage, the poem offers as well a political critique of many ancient institutions, not least the family patriarchy, hospitality customs, and the band-of-brothers so central to epic ideology. And as a masterwork of narrative art, the *Odyssey* asks us to consider the relation of fiction to "truth." We will explore these and other matters in the *Odyssey*, and may make a concluding foray into contemporary re-workings of *Odyssean* themes and characters.

Equivalent Course(s): FNDL 21223, CLAS 33616

SCTH 31224. Aeschylus' *Oresteia*: Drama and Democracy. 100 Units.

The *Oresteia*: Aeschylus's prizewinning trilogy explores (among other things) the fortunes of the house of Atreus, the making of the polis, matters of state, gender trouble, questions of kinship, revenge and its impasses, institutions of justice. Ancient Greek theater in the early-mid 5th c. BCE both maps and reckons with the constitutive tensions in the polis between residual (but still influential) aristocratic norms and practices and the newly dominant (but still developing democratic ethos and ideals - its practices institutionalized in the assembly, the magistracies, and the courts. Aeschylus's *Oresteia* both represents and contributes to that debate (in antiquity and in current scholarship). This trilogy helps us understand crucial aspects of the society that produced it but also invites us to reflect on the ways ancient literature informs how we think about ourselves and our predicaments now - political, familial, existential. And the *Oresteia* further invites us to think about the uses and possibilities of theater, then and now. We will supplement our reading of the play with commentary grounded in literary interpretation and cultural poetics, as well as philosophy and political theory. Although no knowledge of Greek is required for this course, there will be assignment options for those who wish to do reading in Greek.

Equivalent Course(s): GREK 41217, FNDL 21224

SCTH 31614. The Return of Homer: The *Iliad* and *Odyssey* in Contemporary English Language Fiction and Poetry. 100 Units.

The course will examine the extraordinary flowering of English language novels and poems based on the Homeric epics in the past quarter century. We will ask how different contemporary poets and prose writers have interpreted Homer's works and try to understand the appeal of this ancient poetry for modern authors, readers, and publishers. The reading will include such works as Margaret Atwood, *The Penelopiad*; Byrne Fone, *War Stories: A Novel of the Trojan War*; Christopher Logue, *An Account of Homer's Iliad*; David Malouf, *Ransom*; Zachary Mason, *The Lost Books of the Odyssey*; Madeline Miller, *The Song of Achilles*; Alice Oswald, *Memorial: A Version of Homer's Iliad*; Lisa Peterson, *An Iliad*; Kate Quinn, et al., *A Song of War*; and Derek Walcott, *Omeros*. English translations of such foreign-language works as Alessandro Baricco's *An Iliad* and Ismail Kadare's *The Fijile on H*. may also be considered if students wish.

Equivalent Course(s): CLAS 31617

SCTH 31714. Xenophon on Leadership. 100 Units.

In this seminar we will read Freud's major writings about society, religion, politics, and culture. We will then examine texts by writers who follow Freud's lead in their own social, cultural, and political analysis, among them, Theodor Adorno, Norman O. Brown, Julia Kristeva, and Slavoj Zizek.

Instructor(s): Eric Santner Terms Offered: Spring

Equivalent Course(s): PLSC 33901, FNDL 21717

SCTH 31715. The Federalist Papers and Anti-Federalist Writings. 100 Units.

This course examines the debate over the ratification of the Constitution through a reading of *The Federalist Papers* and selected Anti-Federalist writings as works of continuing relevance to current practical and theoretical debates. Issues include war and peace, interests and the problem of faction, commerce, justice and the common good as ends of government, human nature, federalism, republican government, representation, separation of powers, executive power, the need for energy and stability, the need for a bill of rights, and constitutionalism.

Instructor(s): Nathan Tarcov Terms Offered: Winter

Prerequisite(s): Open to undergrads

Equivalent Course(s): PLSC 33930, FNDL 21719, PLSC 23901, LLSO 23901

SCTH 31770. Plato's *Republic*. 100 Units.

This course is devoted to reading and discussion of Plato's *Republic* and some secondary work with attention to justice in the city and the soul, war and warriors, education, theology, poetry, gender, eros, and actually existing cities.

Instructor(s): Nathan Tarcov Terms Offered: Autumn. Course will be taught Autumn 2019

Prerequisite(s): Undergrads by consent

Equivalent Course(s): PLSC 43820, LLSO 23915, FNDL 29503

SCTH 31780. Thucydides. 100 Units.

This course offers an introductory reading of Thucydides's History of the Peloponnesian War, on the classic guides to politics, both domestic and international. Themes may include: progress and decline; justice, necessity, and expediency; fear, honor, and gain as motives of political action; the strengths and weaknesses of democracies and oligarchies in domestic and foreign policy; stability and revolution; strategy, statesmanship, ad prudence; the causes and effects of war; relations between stronger and weaker powers; imperialism, isolationism, and alliances; and piety, chance, and the limits of rationality. We will conclude by reading the first books of Xenophon's Hellenica to see how the war ended.

Instructor(s): Nathan Tarcov Terms Offered: Winter

Note(s): It is a grad and undergrad course, open to undergrads

Equivalent Course(s): PLSC 23900, PLSC 53900, FNDL 21780

SCTH 31926. Aristophanes' Clouds and Plato's Gorgias. 100 Units.

An inquiry into Socrates based on two contrasting works.

Equivalent Course(s): CLAS 41216

SCTH 31927. Reading Thucydides. 100 Units.

An exploration of the text in translation, or, if possible, in Greek.

Instructor(s): James Redfield Terms Offered: Spring. course taught spring 2018

Prerequisite(s): Open to undergrads by consent only

SCTH 31928. Genesis and Exodus. 100 Units.

A close reading of the texts in English with an emphasis on narrative.

Instructor(s): James M. Redfield Terms Offered: Winter. Course will be taught winter 2019

Note(s): open to undergrads by consent

SCTH 32402. Perspective as a Challenge to Art History. 100 Units.

Equivalent Course(s): ENGL 22402, ARTH 32402, ENGL 42412, ARTH 22402

SCTH 32403. Frege's Foundations of Arithmetic as Philosophy and Literature. 100 Units.

One peculiarity of current English-language philosophy is that its founding text is a nineteenth-century German effort to reform mathematics. Gottlob Frege's *Grundlagen der Arithmetik* (1884) was ignored in its day, before the discovery of Russell's Paradox round 1900 seemed to make its mathematics otiose. But its impact on logic, metaphysics, philosophical method and style have made the book a classic, though a fragmentary one. This course aims to regain the unity of this dense but short work, reading for argument and intention, texture and style, in the original and J.L. Austin's fine English translation.

Equivalent Course(s): FNDL 22404

SCTH 32720. Anth Lit-World Poetry. 100 Units.

This course explores fundamentals of poetry and poetics on a world basis (e.g., music of language, theory of tropes, poetry and myth, linguistic-poetic relativism, unique individual, sociopolitical context, moral intention of the poet, metaphysical questions). We focus on the following four poetic worlds: Tang Chinese (e.g., Tu Fu); Russian (i.e., Pushkin); Native American (e.g., Quechua, Eskimo); and three American poets (Dickenson, Frost, Hughes). We also briefly introduce other poetic worlds (e.g., Villon, Baudelaire, haiku).

Equivalent Course(s): ANTH 34814

SCTH 32802. Risk and Uncertainty in Modern Social Thought. 100 Units.

This course will explore the intertwined histories of risk and uncertainty in modern social thought. Existing scholarship on risk tends to focus on the history of the quantification of risk: the rise of probability theory and statistics is central to these accounts of the emergence of the ideas of risk. In modern economic and social thought, however, the challenge of managing unquantifiable risk - what is often called 'true' or 'radical' uncertainty - has become ever more central. 20th-century thinkers such as Joseph Schumpeter, Frank Knight, Frank Ramsey, and John Maynard Keynes grappled with the problem of uncertainty and its relation to theories of decision-making prominent in economic theory. We will read key works of these prophets of uncertainty, and consider their relations to the recent conjuring away of the problem of uncertainty in the form of subjective expected utility theory. We will also examine the connections between the concept of uncertainty and the understanding of modern capitalism.

Instructor(s): Joel Isaac Terms Offered: Autumn. Course offered Autumn 2018

Prerequisite(s): Open to undergrads

Equivalent Course(s): HIST 39416

SCTH 32803. Moral Economy. 100 Units.

Moral Economy" has become a byword for democratic opposition to capitalism. The term was coined by the historian E.P. Thompson, who used it to describe the social rights to which working people appealed during food riots in eighteenth-century England. Since Thompson, the concept of moral economy has become ubiquitous in the social sciences: it is invoked by anthropologists, political theorists, economists, and historians to cover a bewildering array of phenomena. In this course, we will explore both the history and the normative content of the idea of moral economy. We will ask whether it successfully accounts for the mass political phenomena it is often used to explain: riots, revolution, collective risk-management, and practical notions of rights and social justice. Readings will include works by William Godwin, Anton Menger, E.P. Thompson, James C. Scott, Michael Sandel, and Samuel Bowles.

Instructor(s): Joel Isaac Terms Offered: Winter. Course will be taught winter 2019

Prerequisite(s): This is part of a new undergraduate sequence on democratic politics.

SCTH 33401. Conceptual Foundations of the Modern State. 100 Units.

The course will examine the evolution of western thinking about the modern concept of the state. The focus will be on Renaissance theories (Niccolò Machiavelli; Thomas More); theories of absolute sovereignty (especially Thomas Hobbes); theories about 'free states' (James Harrington, John Locke); and republican theories from the era of the Enlightenment.

Equivalent Course(s): HIST 49403, PHIL 31399, PHIL 21399

SCTH 33819. Narratology of Tears: Goethe, Sterne, and the Sentimental Novel. 100 Units.

This seminar will, with a certain intensity of focus, examine two masterpieces of the "sentimental" mode:

Laurence Sterne's *A Sentimental Journey Through France and Italy* (1768) and Goethe's *Die Leiden des jungen Werther* (1774). Since these novels are both generically self-reflective and, each in its own way, boldly experimental, they are well-suited for an analysis oriented toward the theory of narrative. Comparisons will be drawn to passages in Samuel Richardson's *Clarissa, or, The History of a Young Lady* (1747-8) and Rousseau's *Julie, ou La nouvelle Héloïse* (1761). We will also take a forward look at Pierre Choderlos de Laclos' *Liaisons dangereuses* (1782), which may be considered the destruction of the form. In addition to fundamental contributions to narratology, works by Roland Barthes (*Fragments of a Lover's Discourse*), Albrecht Koschorke (*Körperströme und Schriftverkehr. Mediologie des 18. Jahrhunderts*), and James Chandler (*An Archeology of Sympathy. The Sentimental Mode in Literature and Cinema*) will be important points of reference. As always, Schiller's *Über naive und sentimentalische Dichtung* will prove indispensable.

Instructor(s): David Wellbery Terms Offered: Autumn

Equivalent Course(s): CMLT 33819, GRMN 33819

SCTH 34017. Fact and Fiction: Hoaxes and Misunderstandings. 100 Units.

This course will focus on fictional texts that readers have misrecognized as factual accounts, as well as the less frequent case of factual texts misidentified as fictional. Students will study the rhetorical strategies or historical and cultural circumstances responsible for these "errors of pragmatic framing" (O. Caïra) by investigating the contexts governing the production or reception of works such as Apuleius' *The Golden Ass*, *Les Lettres d'une religieuse portugaise*, Denis Diderot's *La Religieuse*, Wolfgang Hildesheimer's *Marbot: A Biography*, and Orson Welles' adaptation of *The War of the Worlds*, among others.

Equivalent Course(s): CMLT 34017, CMLT 24017, FREN 34017, FREN 24017

SCTH 34272. The Ancestral. 100 Units.

Recent work in history and anthropology has stressed the need for deeper models of origins and relations, perhaps even dispensing with "prehistory" as an alternative to more familiar forms of historical self-understanding. This class will look at how the ancestral in literature imagines such deep forms of historical belonging, staging modes of revenge whose cryptic vitalism challenges the phenomenological basis of new materialism. Readings will include Martin Heidegger, Ronald Hutton, Ethan Kleinberg, Quentin Meillassoux, Hans Ruin, and Anna Tsing, poetry by Li He and Osip Mandelstam, weird fiction by H. P. Lovecraft, Arthur Machen and Algernon Blackwood, and futurology by Cicely Hamilton, Jean Hegland, Sarah Moss, and Will Self.

Instructor(s): Mark Payne Terms Offered: Winter

Equivalent Course(s): CMLT 24272, CMLT 34272

SCTH 34601. How to Think about Literature: the Main Notions. 100 Units.

In literary studies new trends and theories rarely supersede older ones. While in physics and biology Aristotle has long been obsolete, literary scholars still find his *Poetics* to be a source of important insights. And yet literary studies are not resistant to change. Over time, they have experienced a genuine historical growth in thinking. Perhaps one can best describe the discipline of literature as a stable field of recurring issues that generate innovative thinking. This course will introduce graduate students to the main notion of the field. Its aim is to identify an object of study that is integral, yet flexible enough to allow for comparisons between its manifestations in various national traditions.

Equivalent Course(s): CMLT 46000

SCTH 34801. Three Erotic Dialogues: Plato, Xenophon, Plutarch. 100 Units.

An exploration of the moral, political, psychological, theological, and philosophical significance of erotic phenomena through reading three classical dialogues on eros: Plato's Symposium, Xenophon's Symposium, and Plutarch's Erotikus. (A)

Instructor(s): N. Tarcov Terms Offered: Winter

Equivalent Course(s): GNSE 26103, FNLD 21207, PLSC 35101, GNSE 36103, PLSC 25101

SCTH 34802. Gibbon's Decline and Fall (Part 1) 100 Units.

A close reading of the first half of Gibbon's masterwork, together with his Autobiography.

Instructor(s): R. Lerner Terms Offered: Autumn

Equivalent Course(s): FNLD 24302

SCTH 35000. Winckelmann: Enlightenment Art Historian and Philosopher. 100 Units.

We approach the first great modern art historian through reading his classic early and mature writings and through the art and criticism of his time (and at the end, our own). Reading-intensive, with a field trip to the Art Institute.

Instructor(s): Andrei Pop Terms Offered: Autumn

Prerequisite(s): German reading competence helpful, but NOT required.

Equivalent Course(s): GRMN 25015, ARTH 25115, CLAS 35014, KNOW 35000, ARTH 35115, GRMN 35015

SCTH 35001. Theatricality in Modern Art from 1700 to the Present. 100 Units.

We examine the dramatic dimension of art in the modern era broadly speaking, paying attention to recurring themes like the Aristotelian theory of action, the Diderotian theory of acting, and the linguistic theory of speech acts, as well as to momentous historical events like the French Revolution, the rediscovery of antiquity, and the advent of photography and motion pictures. Paradigms that have been influential in one or another discipline like Michael Fried's theory of theatricality (in art history), Heinrich Kleist's theory of puppets (in German literature and theatre theory) and Friedrich Nietzsche's theory of tragedy (in music and philosophy) and will also be scrutinized.

Equivalent Course(s): ARTH 35001

SCTH 35006. Can We Be Sure of God's Existence? Anselm's Prosligion. 100 Units.

The prelate and philosopher Anselm of Canterbury is famous among other things for the brief PROSLOGION, whose even briefer logical argument for the existence of God has been ridiculed for centuries as bad metaphysics. But its twentieth-century reappraisal, together with the text's eloquent prayer form and Anselm's appealing statement of his rational method of "faith seeking understanding" (*fides quaerens intellectum*) suggest it deserves our attention. We will read and reread the original (in Latin, if desired), as well as important philosophical discussions of it.

Instructor(s): Andrei Pop Terms Offered: Spring. Course will be taught Spring 2019

Equivalent Course(s): FNLD 25006

SCTH 35007. Manet, Mallarmé, and Modernism. 100 Units.

Much of the theory, as well as the look and sound of modern art, as it developed in the late nineteenth century, is the result of the individual efforts as well as the friendly collaboration of the Parisian painter Edouard Manet and the Parisian poet and English teacher Stéphane Mallarmé. This course will introduce them, examine their major collaborations (*Le Courbeau, L'Après-Midi d'un Faune*), and place them within the developing consensus in experimental art and thought at the *fin de siècle*, which for reasons having to do with the reception Mallarmé came to be called symbolism.

Instructor(s): A. Pop Terms Offered: Spring

Equivalent Course(s): ARTH 24721, FNLD 25007, ARTH 34721

SCTH 35008. Changing Worlds: J.G. Ballard's Apocalyptic Quartet. 100 Units.

Between 1961 and 1966, the English novelist and short story writer J.G. Ballard produced four novels (*THE WIND FROM NOWHERE, THE DROWNED WORLD, THE BURNING WORLD, and THE CRYSTAL WORLD*) that depict, poetically and concretely, global changes to the earth and its human inhabitants, in particular their imaginations. The relation of these lyrical apocalypses to science fiction, visual art, ecology and the philosophy of time, as well as their awkward coordination into a cycle, will concern us. We will conclude the course by reading Anna Kavan's 1967 *ICE*, which in a way complements and completes Ballard's cycle.

Instructor(s): Andrei Pop Terms Offered: Autumn. Course to be taught Autumn 2019

Note(s): Open to undergraduates.

Equivalent Course(s): FNLD 25008, ENGL 35008

SCTH 35706. The Different Senses of Being. 100 Units.

Aristotle states that "being is said in many ways," we shall seek to understand this statement and to study the history of its interpretations. Among the modern authors we shall discuss are Franz Brentano, Martin Heidegger, Ernst Tugendhat, Charles Kahn, Aryeh Kosman, G.E.L. Owen, Stephen Menn, David Charles.

Instructor(s): Irad Kimhi Terms Offered: Winter. This course will be taught winter quarter 2020

Prerequisite(s): Undergrads by permission of instructor only.

Note(s): Graduate seminar open to advanced undergrads

Equivalent Course(s): PHIL 35707

SCTH 35707. On 'Thinking and Being' 100 Units.

The class will be devoted to the themes and lines of philosophical thought set forth in the instructor's recent book "Thinking and Being" (HUP, 2018). We shall work through the Parmenidian puzzles concerning falsehood and negation in trying to find what are the bearers of truth and falsehood, and what is philosophical logic. Readings will include texts by Parmenides, Plato, Aristotle, Frege, Russell, Heidegger, and Wittgenstein.

Instructor(s): I. Kimhi Terms Offered: Autumn. Course to be taught Autumn quarter 2019

Equivalent Course(s): PHIL 25705, PHIL 35705

SCTH 35902. Virgil, The Aeneid. 100 Units.

A close literary analysis of one of the most celebrated works of European literature. While the text, in its many dimensions, will offer more than adequate material for classroom analysis and discussion, attention will also be directed to the extraordinary reception of this epic, from Virgil's times to ours.

Instructor(s): G. Most Terms Offered: Winter 2013

Prerequisite(s): Latin helpful

Equivalent Course(s): CLAS 44512, ENGL 35902, CMLT 35902

SCTH 35914. Early Novels: The Ethiopian Story, Parzifal, Old Arcadia. 100 Units.

The course will introduce the students to the oldest sub-genres of the novel, the idealist story, the chivalric tale and the pastoral. It will emphasize the originality of these forms and discuss their interaction with the Spanish, French, and English novel.

Instructor(s): T. Pavel, G. Most Terms Offered: Winter

Equivalent Course(s): CMLT 24402, RLLT 34402, RLLT 24402, CMLT 34402

SCTH 36002. Elizabeth Bishop and Robert Lowell. 100 Units.

An intensive study of these two poets, whose work differs radically, but whose friendship nourished some of the most enduring and original poetry of the American 20th century. Close attention to the poems, in the light of recent biographical work and new editions.

Equivalent Course(s): ENGL 36222

SCTH 36003. 20th Century French Poets in Translation. 100 Units.

An examination of four poets who shaped the possibilities of the art in the 20th century: Apollinaire, Max Jacob, Rene Char, and Francis Ponge. We will read the poems in translating with reference to the French originals.

Instructor(s): Rosanna Warren Terms Offered: Winter. course will be taught winter 2019

Equivalent Course(s): CMLT 36003, FREN 36003

SCTH 36012. 19th Century French Poetry in Translation: Tradition and Revolution. 100 Units.

A study of modern French lyric poetry: Tradition and Revolution, Poetry and Politics, the seedbed of Modernism. Desbordes-Valmore, Baudelaire, Mallarme, Verlaine, Rimbaud, Apollinaire. Texts will be read in English with reference to the French originals. Close reading, references to poetry in English, and focus on problems in translation. Students with French should read the poems in the original. Class discussion to be conducted in English; critical essays to be written in English. An extra weekly session will be scheduled for discussion in French, for French-speakers.

Instructor(s): Rosanna Warren Terms Offered: Autumn. Course to be taught autumn 2019

Prerequisite(s): For advanced undergrads seeking French credit: French 20500 or 20503 and at least one literature course taught in French.

Note(s): For graduate students and advanced undergraduates.

Equivalent Course(s): SCTH 26012, ENGL 36012, FREN 36019, FREN 26019, CMLT 36012

SCTH 36013. Contemporary Poems in English. 100 Units.

Equivalent Course(s): ENGL 36013

SCTH 36014. T.S. Eliot. 100 Units.

With the major new edition of Eliot's poems by Jim McCue and Christopher Ricks, the new volumes of Eliot's letters, and two separate new editions of Eliot's complete prose, we are in a position to rethink the meanings and force of Eliot's life work. The class will be devoted to careful reading of his poems, essays, plays, and correspondence, with attention to his literary, cultural, and political contexts.

Equivalent Course(s): ENGL 34850, ENGL 26614, FNLD 26614

SCTH 36015. The New Criticism. 100 Units.

An examination of primary works of The New Criticism, British and American. We will consider the theoretical variety and different critical practices of these loosely allied critics, who were often not allies at all. Authors to be studied: I.A. Richards, T.S. Eliot, F.R. Leavis, Kenneth Burke, John Crowe Ransom, Cleanth Brooks, Robert Penn Warren, W.K. Wimsatt, Yvor Winters, R. P. Blackmur, William Empson.

Equivalent Course(s): CMLT 36015, ENGL 43250

SCTH 36016. Robert Frost and Wallace Stevens. 100 Units.

Robert Frost and Wallace Stevens, two giants of American poetry in the 20th century, both spiritual sons of Emerson, opened divergent paths for the art and competed fiercely with each other. By studying them side by side, we will explore the modern struggle to take account of experience, reality, and imagination in language. Stevens: "Your trouble, Robert, is that you write poems about - things." Frost: "Your trouble, Wallace, is that you write poems about - bric a brac." (Exchange in 1940).

Instructor(s): Rosanna Warren Terms Offered: Autumn. Course to be taught autumn 2019

Prerequisite(s): Open to graduates and undergraduates.

Equivalent Course(s): FNDL 26017

SCTH 36415. Heinrich von Kleist. 100 Units.

The seminar explores the work of Heinrich von Kleist in all its dimensions: The plays, novellas, short prose, and letters. The main focus is on close readings and discussion, but we'll also put to the test Kleist's broader relevance for literary poetics, philosophy, theology, and juridical as well as political thought. While the instructor's interest lies on the question of justice as the driving force behind Kleist's production, participants are asked to bring their own agendas, and we'll use the first meeting to work out a schedule for the class.

Instructor(s): Florian Klingler Terms Offered: Winter

Note(s): Readings in German, Discussion in English.

Equivalent Course(s): GRMN 36415

SCTH 36710. Eccentric Moderns. 100 Units.

An examination of six idiosyncratic poets who invented new forms of language on the peripheries of High Modernism: David Jones, Laura Riding, Hart Crane, W.H. Auden, Geoffrey Hill, and Anne Carson. Close formal analysis of the poems in the wider social and political contexts of the 20th and early 21st centuries.

Instructor(s): Rosanna Warren Terms Offered: Autumn. course is offered Autumn 2018

Prerequisite(s): Open to advanced undergraduates

Equivalent Course(s): ENGL 36710

SCTH 37000. Aesthetics of French Classicism. 100 Units.

Though "aesthetic" philosophy first developed as an autonomous field in the mid-eighteenth century, it has important roots in earlier eighteenth- and seventeenth-century debates concerning literature and the arts. In the wake of Cartesian rationalism, could reasoned method be reconciled with non-rational creativity, or decorous order with the unruly "sublime"? Just what kind of "truth" was revealed by poetry or painting? We will consider the relation between literature and other media (including music, opera, and the visual arts) and gauge the impact of French classical criticism on the broader European scene. Readings will include works by Descartes, Pascal, Boileau, Molière, La Fontaine, Félibien, Du Bos, Addison, Hutcheson, Vico, Montesquieu.

Instructor(s): L. Norman Terms Offered: Spring

Prerequisite(s): Undergrads admitted with permission of instructor.

Note(s): Course will be conducted in French; students not taking course for French credit may do written work and class presentations in English.

Equivalent Course(s): ARTH 48301, REMS 37000, FREN 37000, CMLT 38600

SCTH 37016. Goethe's Novels II: Die Wahlverwandschaften. 100 Units.

After considering Goethe's *Werther* and Wilhelm Meisters *Lehrjahre* in the first phase of this three-part seminar, we turn to Goethe's "most beautiful book" (as he put it): *Die Wahlverwandschaften* of 1809. The remarkable feature of Goethe's novelistic production is that each of his four novels develops a distinct formal or generic conception. In the case of *Elective Affinities*, we have what the philosopher-aesthetian Karl Ferdinand Solger referred to as a "tragic novel" and what others have called a "novel of society." Other terms suggest themselves, for example: "experimental novel" (in view of the fact that it is a scientific experiment from which the novel draws its leading metaphorical model). The seminar will consider the question of genre along with other, related issues: the place of science/knowledge in the novel, the novel in its historical context, the novel's mode of citation and signification. Major contributions to the criticism of the novel (from Solger to Kittler) will be discussed as we develop a close reading of the novel across the ten weeks of the quarter. The written requirement for the seminar is a suite of bi-weekly "response papers." The seminar will include a special one-day roundtable on Walter Benjamin's essay on *Die Wahlverwandschaften* with the participation of guest scholars.

Instructor(s): D. Wellbery Terms Offered: Autumn

Equivalent Course(s): GRMN 37016

SCTH 37105. Sem: Augustine. 100 Units.

Instructor(s): Clifford Ando & Terms Offered: Winter

Equivalent Course(s): CLAS 46313, HIST 33513, HIST 23513

SCTH 37106. Race and Religion: Judaism, Christianity, and Islam. 100 Units.

What does race have to do with religion? This course will explore how racial concepts - ideas about the transmission of characteristics through blood and lineage - emerged in Judaism, Christianity, and Islam, often in response to episodes of large-scale conversion. The word "race" was itself first applied to humans in response to one of these episodes: the mass conversions of Jews and Muslims to Christianity in late medieval Spain. We will study this and other episodes, beginning with early Christianity and early Islam, and concluding with conversions to Islam in South Asia, and of enslaved Africans and native peoples to Christianity in the New World, in order to ask how these episodes of conversion influenced the mapping of culture (religion) onto reproduction (nature, biology). Did they effect the racialization of religion? and what influence did these mappings have on racial concepts in modernity?

Instructor(s): David Nirenberg Terms Offered: Winter. Course to be taught Winter 2020

Prerequisite(s): Undergrads by consent of instructor.

Equivalent Course(s): HCHR 37106, ISLM 37106, HIJD 37106, HIST 42102

SCTH 37318. Friedrich Nietzsche's Twilight of Idols. 100 Units.

Course Description unavailable.

Equivalent Course(s): GRMN 37316, PLSC 37318, FNDL 27318, PHIL 34713, GRMN 27316, PHIL 24713

SCTH 37319. Nietzsche's Beyond Good and Evil. 100 Units.

I shall present a new interpretation of Nietzsche's *Beyond Good and Evil* and discuss Nietzsche's book from the beginning to its end in detail.

Equivalent Course(s): FNDL 25703, PHIL 37319, GRMN 37319

SCTH 37320. Leo Strauss on the Philosophic Life. 100 Units.

No philosopher before Leo Strauss stressed with similar emphasis that philosophy has to be conceived not as a discipline or a set of doctrines but as a way of life, and few have so sharply grasped the philosophic life and separated it from edifying trivializations or pious appropriations as Strauss did in the very same essay in which he introduced the concept for the first time: "The Law of Reason in the Kuzari." The seminar will focus on this text, which seems to deal with a rather remote historical subject. Originally published in 1943, it is one of Strauss's most intransigent essays. I shall also discuss "On Classical Political Philosophy" (1945), "The Spirit of Sparta or the Taste of Xenophon" (1939), and "Farabi's Plato" (1945).

Equivalent Course(s): FNDL 27320, PHIL 37320, PLSC 37320

SCTH 37321. Leo Strauss: Natural Right and History. 100 Units.

I shall present a new reading of *NATURAL RIGHT AND HISTORY*, focusing on the first 4 chapters, discussing the philosophical intention and the political impact of this seminal book that laid the foundation of the "Straussian School."

Instructor(s): Heinrich Meier Terms Offered: Spring. Course will be taught during the first five weeks of spring 2019.

Prerequisite(s): Open to undergrads by consent.

Note(s): will be taught twice a week for the first five weeks of spring 2019.

Equivalent Course(s): PHIL 37321, GRMN 37321, FNDL 27321, PLSC 37321

SCTH 37322. Jerusalem and Athens - On the Conflict between Revelation and Philosophy. 100 Units.

I shall discuss the subject on the basis of 4 lectures Leo Strauss gave on "Jerusalem and Athens" and "Reason and Revelation" in the period 1946-1967.

Instructor(s): Heinrich Meier Terms Offered: Spring. course will be taught spring 2020

Note(s): Open to undergrads by consent only. This course will be taught the first five weeks of the quarter.

Equivalent Course(s): PHIL 37322, PLSC 37322, FNDL 27322

SCTH 37501. Psychoanalysis and Philosophy. 100 Units.

An introduction to psychoanalytic thinking and its philosophical significance. A question that will concern us throughout the course is: What do we need to know about the workings of the human psyche-in particular, the Freudian unconscious-to understand what it would be for a human to live well? Readings from Plato, Aristotle, Freud, Bion, Betty Joseph, Paul Gray, Lacan, Lear, Loewald, Edna O'Shaughnessy, and others.

Equivalent Course(s): FNDL 28210, PHIL 28210, HIPS 28101, PHIL 38209

SCTH 37512. Dream of the Red Chamber: Forgetting About the Author. 100 Units.

The great Chinese-Manchu novel *Honglou meng* (ca. 1750) has been assigned one major author, Cao Xueqin, whose life has been the subject of much investigation. But before 1922 little was known about Cao, and interpreters of the novel were forced to make headway solely on the basis of textual clues. The so-called "Three Commentators" edition (*Sanjia ping Shitou ji*) shows these readers at their creative, polemical, and far-fetched best. We will be reading the first 80 chapters of the novel and discussing its reception in the first 130 years of its published existence (1792-1922), with special attention to hermeneutical strategies and claims of authorial purpose. Familiarity with classical Chinese required.

Instructor(s): Haun Saussy Terms Offered: Spring

Prerequisite(s): Familiarity with classical Chinese required.

Equivalent Course(s): EALC 37512, CMLT 27512, FNDL 27512, EALC 27512, CMLT 37512

SCTH 38001. Hegel: Phenomenology. 100 Units.

Equivalent Course(s): GRMN 33200, PHIL 23301, PHIL 33301

SCTH 38005. Nietzsche's Critique of Morality. 100 Units.

Equivalent Course(s): GRMN 34709, GRMN 24709, PHIL 34709, PHIL 24709

SCTH 38006. Philosophical Fiction: Proust's In Search of Lost Time. 100 Units.

We will discuss all seven volumes of Proust's magisterial novel, *IN SEARCH OF LOST TIME* (1913-1927). The novel is well known for its treatment of a large number of philosophical issues: including self-identity over time, the nature of memory, social competition and snobbery, the nature of love, both romantic and familial, the role of fantasy in human life, the nature and prevalence of jealousy, the nature and value of art, the chief characteristics of bourgeois society, and the nature of lived temporality. Our interest will be not only in these issues but also in what could be meant by the notion of a novelistic "treatment" of the issues, and how such a treatment might bear on philosophy as traditionally understood. We shall use the Modern Library boxed set of seven volumes for the English translation, and for those students with French, we will use the Folio Collection paperbacks of the seven volumes. (I)

Instructor(s): Robert Pippin and Joshua Landy Terms Offered: Spring. Course will be taught spring 2019

Prerequisite(s): In order to be able to do so in a ten week quarter, student must announce their intention to register for the course before the end of the Spring quarter 2018, and pledge to have read the entire novel before the March 2019 beginning of the seminar. (They can do so by emailing Robert Pippin at rbp1@uchicago.edu)

Equivalent Course(s): PHIL 38006, PHIL 28006, FNDL 28006

SCTH 38112. Film Aesthetics. 100 Units.

The main questions to be discussed are: the bearing of cinema on philosophy; or in what sense, if any, is cinema a form of philosophical thought? What sort of distinctive aesthetic object is a film, or what is the "ontology" of film? What, in particular, distinguishes a "realist" narrative film? What is a "Hollywood" film? What is a Hollywood genre? Authors to be read include, among others, Bazin, Cavell, Perkins, Wilson, Rothman. Films to be seen and discussed, among others, include films by Bresson, Ford, Ophuls, Cukor, Hitchcock, and the Dardenne brothers. (I)

Instructor(s): J. Conant, R. Pippin Terms Offered: Spring

Equivalent Course(s): CMST 27205, CMST 37205, PHIL 30208, PHIL 20208

SCTH 38113. Hermeneutics of the Image. 100 Units.

What does it mean to "read" an image? To achieve an understanding of its "meaning"? This is not an easy question since images don't directly offer propositional content, which is the usual habitat of meaning. In this seminar, we will approach this question by considering first some foundational contributions to hermeneutics (Gadamer, Hirsch) and to the theory of pictorial meaning (Wollheim). We will then dig into the tradition of pictorial interpretation as it unfolds starting with Winckelmann and Diderot and extending to the present day (Fried, Clark). Freudian hermeneutics (Freud, Adrian Stokes), iconology (Panofsky), and phenomenology (Merleau-Ponty, Heidegger) will also be considered. In each case, we will endeavor to test the claims and interpretive findings through close examination of the images involved. The emphasis will be on the tradition of European painting and sculpture, but the tools acquired in the seminar should also be applicable in other fields.

Instructor(s): David Wellbery Terms Offered: Winter

Prerequisite(s): For advanced undergrads, consent of instructor required.

Equivalent Course(s): GRMN 25213, ARTH 35213, GRMN 35213, ARTH 25213

SCTH 38201. Pascal and Simone Weil. 100 Units.

Blaise Pascal in the seventeenth century and Simone Weil in the twentieth formulated a compelling vision of the human condition, torn between greatness and misery. They showed how human imperfection coexists with the noblest callings, how attention struggles with distraction and how individuals can be rescued from their usual reliance on public opinion and customary beliefs. Both thinkers point to the religious dimension of human experience and suggest unorthodox ways of approaching it. We will also study an important text by Gabriel Marcel emphasizing human coexistence and cooperation.

Instructor(s): T. Pavel Terms Offered: Spring

Prerequisite(s): Undergraduates must be in their third or fourth year.

Note(s): The course will be taught in English. For French undergraduates and graduates, we will hold a bi-weekly one-hour meeting to study the original French texts.

Equivalent Course(s): RLST 24910, FREN 29100, FREN 39100, CMLT 39101, FNDL 21812, CMLT 29101

SCTH 38230. Les Misérables. 100 Units.

In this course we read *Les Misérables* and discuss the work's message, structure, and aesthetic vision. We will be particularly attentive to Victor Hugo's role as an observer of nineteenth-century French society as well as an actor in the political life of his times.

Instructor(s): R. Morrissey Terms Offered: Winter

Note(s): All classes and texts in French; presentations preferred in French, but English will be acceptable depending on the concentration. Written work in French or English.

Equivalent Course(s): FREN 26103, FNDL 26100, FREN 36103

SCTH 38240. Beautiful Souls, Adventurers, and Rogues. The European 18th Century Novel. 100 Units.

The course will examine several major eighteenth-century novels, including Manon Lescaut by Prevost, Pamela and fragments from Clarissa by Richardson, Shamela and fragments from Joseph Andrews by Fielding, Jacques le Fataliste by Diderot, and The Sufferings of Young Werther by Goethe.

Instructor(s): T. Pavel Terms Offered: Winter

Prerequisite(s): Not open to first-year undergraduates.

Note(s): Taught in English. A weekly session in French will be held for French majors and graduate students.

Equivalent Course(s): FREN 35301, FREN 25301, CMLT 34401, CMLT 24401

SCTH 38250. Don Quixote. 100 Units.

The course will provide a close reading of Cervantes' Don Quijote and discuss its links with Renaissance art and Early Modern narrative genres. On the one hand, Don Quijote can be viewed in terms of prose fiction, from the ancient Greek romances to the medieval books of knights errant and the Renaissance pastoral novels. On the other hand, Don Quijote exhibits a desire for Italy through the utilization of Renaissance art. Beneath the dusty roads of La Mancha and within Don Quijote's chivalric fantasies, the careful reader will come to appreciate glimpses of images with Italian designs.

Instructor(s): F. de Armas, T. Pavel Terms Offered: Winter

Note(s): Taught in English. Students seeking Spanish credit will read the text in the original and use Spanish for the course assignments.

Equivalent Course(s): SPAN 34202, CMLT 38101, SPAN 24202, CMLT 28101, FNDL 21221

SCTH 38502. Henry James and the Question of Evil: The Portrait of a Lady and the Turn of the Screw. 100 Units.

Equivalent Course(s): ENGL 48502

SCTH 38816. Literature as Trial. 100 Units.

The affinities between literary and judicial practice seem as old as literature itself. Countless literary works take the form of a trial, revolve around a case or trial scene, or negotiate competing ways of seeing and talking. What is the relationship between judgment and poetic form? Can "trial" be understood as a distinct form of discourse? What role can the literary play in the legal process? Is there a privileged relationship between the trial and the dramatic genre? Can literature be a training for judgment? Are there specifically poetic forms of justice? Readings include Sophocles, Dante, Shakespeare, Kleist, Kafka, Arendt, Weiss, Derrida, Coetzee.

Equivalent Course(s): GRMN 38815, GRMN 28815, CMLT 38815, CMLT 28815

SCTH 39117. Burke's Politics. 100 Units.

A broad but intensive examination of Edmund Burke's principles and political practice as exhibited in his writings and parliamentary speeches.

Equivalent Course(s): FNDL 29117

SCTH 39123. Reading Sir Francis Bacon. 100 Units.

Terms Offered: R. Lerner

Equivalent Course(s): FNDL 26706

SCTH 39127. The Political Thought of James Madison. 100 Units.

A close examination of the philosophic underpinnings of Madison's political thought.

Equivalent Course(s): FNDL 29127

SCTH 39128. Political Essays from the "Encyclopedie" 100 Units.

A window into the project of the radical enlightenment as exemplified by selected political essays in Diderot and d'Alembert's Encyclopedie.

Equivalent Course(s): FNDL 29218

SCTH 39130. Montesquieu's Persian Letters. 100 Units.

A close reading of a challenging critique of social and political thought.

Equivalent Course(s): FNDL 29130

SCTH 39131. Tyranny Ancient and Modern. 100 Units.

This class will test an hypothesis - that the appearance of Machiavelli's Prince marks a watershed in the history of tyranny. It will have as its focus Machiavelli's claim in the eleventh chapter of The Prince that "only" ecclesiastical principalities "are secure and prosperous." It will explore what Machiavelli learned from his study of what came to be called priestcraft, and it will examine what his subsequent admirers did with what he learned. The reading will include work by Alfarabi and those among his successors whose account of the relationship between philosophy and religion influenced Machiavelli as well as selections from the writings of Mario Vargas Llosa, Herodotus, Plato, Xenophon, Tacitus, Suetonius, Savonarola, Sir Francis Bacon, David Hume, and Jean-Jacques Rousseau, among others.

Instructor(s): Ralph Lerner and Paul Rahe Terms Offered: Spring. Course will be taught spring 2019 & co-taught with Paul Rahe.

Prerequisite(s): This course will be co-taught with Paul Rahe.

Equivalent Course(s): FNDL 29131

SCTH 39132. Philosophical Fables: Bacon's New Atlantis & Descartes' Discourse On Method OD. 100 Units.

A philosophical and literary study of two works fundamental to understanding the character and development of modern life.

Instructor(s): Ralph Lerner and Stuart Warner Terms Offered: Autumn. Course to be taught autumn 2019

Prerequisite(s): Open to undergrads

Equivalent Course(s): FNDL 29132

SCTH 39601. H.P. Lovecraft and Cosmic Horror. 100 Units.

This class will analyze the recent spike in critical attention to the work of H.P. Lovecraft. We will read a representative selection of Lovecraft's fiction, focusing on the works of cosmic horror, along with Lovecraft's own theoretical writings. In addition, we will read a range of contemporary critical engagements with this work - ecological, ontological, and social-theoretical.

Instructor(s): Mark Payne Terms Offered: Winter. course will be taught winter quarter 2019

Equivalent Course(s): FNDL 29601

SCTH 40122. Self-Interest After Adam Smith. 100 Units.

This course examines the afterlife of Adam Smith's notorious defense of self-interest. Famously, Smith argued that, under what he called the system of natural liberty, the general welfare could best be served by letting individuals pursue their private interests. The precise meaning of Smith's account of the efficacy of commercial society was fiercely contested in the time he published *The Wealth of Nations*. During the nineteenth century and into the twentieth, the Smithian concept of self-interest was first conscripted into harsh, Malthusian views of market discipline, and then into neoclassical economics as an axiom of the theory of economic equilibrium. More recently, historians and political theorists have recovered a much richer picture of the place of self-interest in Smith's thought. Can the historical Smith erase the caricature to which we have become accustomed? Is the concept of self-interest now as central to political thought as it once was. These are the kinds of questions we will pose as we work our way through texts by Smith, Paine, Burke, Stigler, Hirschman, and others.

Instructor(s): Joel Isaac Terms Offered: Winter. course will be taught winter 2019

Prerequisite(s): Grad seminar, open to undergrads by consent.

Equivalent Course(s): HIST 49405

SCTH 40123. History and Time. 100 Units.

This course explores the relationship between historical writing and conceptions of time. It focusses on the work of three twentieth-century theorists of history: Paul Ricoeur, Reinhart Koselleck, and J.G.A. Pocock. These figures drew on the philosophical traditions of idealism, historicism, and phenomenology; but they also studied history of historiography and political thought. We will examine their shared intellectual roots, and then turn to a close reading of a major text by each writer: Ricoeur's *TIME AND NARRATIVE*, Koselleck's *CRITIQUE AND CRISIS*, and Pocock's *THE MACHIAVELLIAN MOMENT*.

Instructor(s): Joel Isaac Terms Offered: Spring. course will be taught spring 2020

Prerequisite(s): CONSENT OF INSTRUCTOR REQUIRED.

Equivalent Course(s): HIST 49406

SCTH 40200. Case Studies on the Formation of Knowledge-I. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module." A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu Module 1 : Approaches to Knowledge Shadi Bartsch, Jack Gilbert The goal of this module is to identify central issues or debates in the theory of knowledge over the past century. Students will be introduced to basic issues in the sociology of knowledge, to the arguments for and against constructivist perspectives on knowledge, and to 21st century scientific standards for knowledge production. The course should provide students with a vocabulary and conceptual tools with which they argue about these issues and reflect upon the very conceptual tools they are using. Module 2: Democratic Knowledge Shadi Bartsch, Will Howell This module offers a variation on studies of the epistemic powers of democracy. Instead of asking questions such as how effective democracies are at gathering the knowledge they need to function, the module looks at

Equivalent Course(s): MAPH 40200, HIST 40200, SOCI 40209, CHSS 40200, PLSC 40202, MAPS 40201, CMLT 41802, KNOW 40200

SCTH 40300. Case Studies on the Formation of Knowledge II. 100 Units.

The KNOW core seminars for graduate students are offered by the faculty of the Stevanovich Institute on the Formation of Knowledge. This two-quarter sequence provides a general introduction, followed by specific case studies, to the study of the formation of knowledge. Each course will explore 2-3 case study topics, and each case study will be team-taught within a "module." A short research paper is required at the end of each quarter. Graduate students from every field are welcome. Those who take both quarters are eligible to apply for a SIFK 6th-year graduate fellowship. For more information, please email your questions to sifk@uchicago.edu

Module 1 : Foundations of Psychology in Linguistics and Biology Robert Richards, John Goldsmith This module will examine the ways several established disciplines, particularly linguistics and biology, came together in the mid-19th century to establish the science of psychology. Both linguistics and biology offered empirical and theoretical avenues into the study of mind. Researchers in each advanced their considerations either in complementary or oppositional fashion. Module 2 : Origins of the Social Construction of Knowledge Robert Richards, Alison Winter This module will trace the development of the idea of the social construction of knowledge and its relation to philosophy and history of science. The development lit a spark, then created a conflagration, and yet still smolders. Module 3 : The Politics of Philosophical Knowledge

Equivalent Course(s): MAPS 40301, HIST 64901, CMLT 41803, KNOW 40300, CHSS 40300, MAPH 40300, SOCI 40210, EALC 50300

SCTH 40308. Political Theologies of Slavery and Freedom in the Atlantic World. 100 Units.

This seminar examines the interdisciplinary form of knowledge known as "political theology" in the context of Atlantic slavery. The course will trace two major developments. First, we will explore how Christian metaphysics facilitated colonialism and slavery, focusing on the emergence of race as a theological (rather than a biological) concept and on the self-fulfilling providentialism that structured fantasies of Euro-Christian world dominance. Second, we will explore how indigenous and African cosmologies and Christianities informed enslaved resistance and abolitionism. Our readings will range from works of political theology (Augustine, Calvin, Hobbes) to early American writings (Las Casas, Ligon, Jefferson) to Black Atlantic anti-slavery texts (Wheatley, Walker, Turner). We'll consider the explorer George Best's rewriting of the biblical Curse of Ham, Francis Bacon's claim that Europe's superior technology evidenced its Chosen status, and the ideology of "hereditary heathenism" that forestalled early efforts to convert slaves to Christianity. Likewise, we'll consider the role of obeah in the Haitian Revolution, the competing attitudes toward Christian slave revolt found in fiction by Douglass and Stowe, and the continued contestation of what W. E. B. Du Bois called "the new religion of whiteness." Secondary authors may include Charles Taylor, Talal Asad, Max Weber, Colin Kidd, Rebecca Goetz, Jared Hickman, Katharine Gerbner, Jorge Cañizares-Esguerra, and J. Kameron Carter

Instructor(s): Alex Mazzaferro Terms Offered: Spring

Equivalent Course(s): KNOW 40308

SCTH 40400. The Phenomenology Of Love. 100 Units.

Gilbert Ryle (1900-1976) was one of the leading figures of mid-20th century Oxford Philosophy. This course will focus on a close reading of his 1949 masterpiece, *The Concept of Mind*, with its attack on the "category-mistake" of the Cartesian "Myth of the Ghost in the Machine." Attention will be paid to Ryle's metaphysical writings and his views on language, his views on knowledge (and the distinction between knowledge-how and knowledge-that), his relation to behaviorism, and his impact on subsequent developments in the philosophy of mind including the token-token identity theory and functionalism.

Equivalent Course(s): PHIL 54700, DVPR 54700

SCTH 41219. Interpretation: Theory and Practice. 100 Units.

his seminar will be conducted on two tracks. On the one hand, we will study major contributions to hermeneutic theory (including positions that understand themselves as anti-hermeneutic). Contributions to be considered include works by Friedrich Schleiermacher, Wilhelm Dilthey, Martin Heidegger, Hans-Georg Gadamer, Paul Ricoeur, E.D. Hirsch, Manfred Frank, Roland Barthes, Stanley Cavell, and Jacques Derrida. At the same time, the seminar will include a practical component in which we will collectively develop interpretations of works by Heinrich von Kleist, Johann Peter Hebel, Franz Kafka, Friedrich Nietzsche, Charles Baudelaire, Guillaume Apollinaire, Emily Dickinson, and Herman Melville. English translations of the assigned readings will be provided. (This course is restricted to students in Ph.D. programs.)

Instructor(s): David Wellbery Terms Offered: Autumn

Equivalent Course(s): FREN 41219, ENGL 41219, GRMN 41219, CMLT 41219

SCTH 41250. Hegel: Phenomenology of Spirit. 100 Units.

A study of Hegel's *Phenomenology*. Reading in German or English, discussion in English. Please use Suhrkamp or Meiner editions, or the Miller translation from Oxford UP.

Instructor(s): Florian Klingner Terms Offered: Winter

Equivalent Course(s): GRMN 41250

SCTH 41607. Virtues of the Intellect: Aristotle's Nicomachean Ethics VI and Heidegger's Comment. 100 Units.

This seminar will do a careful reading and investigation of Heidegger's interpretation of Aristotle on the intellectual virtues, in particular *phronesis* and *sophia*. We shall consider how the intellectual virtues differ from the ethical virtues. We shall do a careful reading of Heidegger's discussion of this material in his book *Plato's Sophist* and we shall compare it closely with Aristotle's own discussion in Book 6 of the *Nicomachean Ethics*.

Equivalent Course(s): PHIL 51714

SCTH 42420. Approaches to the History of Political Thought. 100 Units.

This course will examine some of the most influential recent statements of method in the history of political thought, alongside work by the same authors that may (or may not) put those methods or approaches into practice. We will read works by Quentin Skinner, Reinhart Koselleck, J.G.A. Pocock, Leo Strauss, Sheldon Wolin, Michel Foucault, and David Scott among others, with some emphasis on writings about Hobbes and questions of sovereignty and the state. (E)

Instructor(s): J. Pitts Terms Offered: Winter

Equivalent Course(s): PLSC 42420

SCTH 43201. Freud: Found in Translation. 100 Units.

Equivalent Course(s): PHIL 43201

SCTH 44500. Bayle In Translation. 100 Units.

This course will focus on the political and religious thought of one of the major figures of the Enlightenment, Pierre Bayle. We will study Various Thoughts on the Occasion of a Comet (1683) and selected articles from his Historical and Critical Dictionary (1697, 1702).

Instructor(s): Ralph Lerner Terms Offered: Winter. course to be taught winter 2020

Note(s): Open to advanced undergrads

Equivalent Course(s): FNDL 24505

SCTH 44914. Goethe's Novels I: Werther, Wilhelm Meisters Lehrjahre. 100 Units.

This seminar (to be followed in a future year by seminars on the two other novels by Goethe, Die Wahlverwandtschaften and Wilhelm Meisters Wanderjahre) will be centered on a close reading of Werther and Wilhelm Meister. We will also take the opportunity of this engagement with two very different narratives to review the fundamental principles of narratological analysis. Some attention will be paid to the centrality of these works (esp. WM) in the modern theory of the novel from Moritz and Fr. Schlegel to Lukacs. Paradigmatic contributions to the scholarship produced during the past three decades (e.g., psychoanalysis, discourse analysis, rhetorical-deconstructive readings) will be discussed in each session. In this regard, the seminar offers a compact introduction to recent theoretical trends in German literary studies.

Instructor(s): David Wellbery Terms Offered: Autumn

Equivalent Course(s): GRMN 37014

SCTH 44917. Studies in Dramatic Structure: Goethe and Schiller. 100 Units.

Drama, as theoreticians from Aristotle to Hegel forcefully argued, views the world through the lens of action. But how exactly does action make the world intelligible? In this course we shall consider this question through the close analysis of two (very different) historical plays: Goethe's Egmont and Schiller's Maria Stuart. Since both these plays rely on historical sources, we shall have the opportunity to view dramatic structure against the background of historical events (both factual and mythic). Schiller's theoretical work, centrally his review of Egmont, and Goethe's essays on Shakespeare will provide important analytical reference points, but our discussions will also draw on theoretical work on drama from Hegel to Juliane Vogel. This course provides a unique opportunity for the close study of dramatic structure.

Instructor(s): David Wellbery Terms Offered: Spring

Equivalent Course(s): GRMN 36805

SCTH 45712. Judah Halevi's Kuzari. 100 Units.

Equivalent Course(s): ISLM 45712, FNDL 25903, RLST 25903, HIJD 45712

SCTH 46011. The Poetry and Prose of Thomas Hardy. 100 Units.

A Victorian and a Modernist, a rare master of the arts of fiction and poetry, Thomas Hardy outraged Victorian proprieties and helped to make 20th century literature in English possible. Close reading of four novels and selected early middle, and late poems by Hardy, with attention to the contexts of Victorian and Modern literary culture and society.

Instructor(s): Rosanna Warren Terms Offered: Winter. Course to be taught winter 2020

Note(s): For graduate students and advanced undergraduates.

Equivalent Course(s): FNDL 26011, ENGL 43708, ENGL 23708

SCTH 47219. The Romanticism Laboratory. 100 Units.

This seminar examines German Romanticism with respect to its major expressions: aesthetics and critical theory (esp. Fr. Schlegel, A.W. Schlegel); central concepts (irony, fragment, work, reflection); narrative forms (Kunstmärchen, novella, novel); lyric; drama. We will also briefly consider painting, political and social theory, historiography, and theology. Among the writers to be considered are Tieck, Novalis, Brentano, Günderode, Schleiermacher, Eichendorff, Hoffmann, and Heine. Developing a synthetic historical-theoretical account of Romanticism involves examination of a broad range of texts, but time limitations require concentration on exemplary cases. Nonetheless, to ensure maximum coverage, students will be expected to conduct independent research and to present their findings to the group. In order for these findings to fit together in a large picture, it will be necessary to develop a shared set of analytic concepts. In short, the seminar is conceived as a "research laboratory" in which individual contributions are brought together to produce an encompassing research report. Major contributions to the scholarship (e.g., Benjamin, Behler, Henrich, Menninghaus, Frank, Beiser) will be constant points of reference. Thus, the seminar will provide all participants with rich source material for future teaching and writing. (Good reading knowledge of German required.)

Instructor(s): David Wellbery Terms Offered: Spring

Prerequisite(s): Good reading knowledge of German required.

Equivalent Course(s): GRMN 47219

SCTH 48000. Colloquium: The Age of Keynes. 100 Units.

This class uses the writings of John Maynard Keynes as a window into twentieth-century economic thinking and governance. Topics include Keynes's monetary economics in the aftermath of WWI; the General Theory in the context of the Great Depression; the construction of the post-WWII international economic order; the consolidation of Keynesian macroeconomics and the fate of social democracy.

Instructor(s): J. Levy and J. Isaac Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor

Equivalent Course(s): HIST 48000

SCTH 49702. Reading Descartes's *Meditationes de prima Philosophia*. 100 Units.

Equivalent Course(s): PHIL 56715, DVPR 54712, THEO 54712

SCTH 49800. Reading Course: Non Soc Th. 100 Units.

Independent reading course for non-Social Thought graduate students, which are supervised by Social Thought faculty.

Terms Offered: Autumn Spring Summer Winter. Recurring every quarter

Prerequisite(s): Consent required.

Note(s): Open only to non-Social Thought Graduate students. Enter section from faculty list on web.

SCTH 49900. Reading Course: Soc Th. 100 Units.

Independent study/reading course for Social Thought students only.

Terms Offered: Autumn Spring Summer Winter. Recurring every quarter going forward

Prerequisite(s): Open to Social Thought graduate students only. Enter section from faculty list on the web.

SCTH 50058. Sem: Pragmatism and Religion. 100 Units.

The American philosopher William James is not only one of the founders of pragmatism, but also the inaugurator of a methodological revolution in the empirical study of religion, namely of an approach that deals with religion not so much as a set of doctrines or institutions, but as articulations of intense experiences of self-transcendence. Starting with James's classical work "The Varieties of Religious Experience" of 1902, this class will also deal with the contributions of other pragmatist thinkers to the study of religion - ranging from classical authors (Peirce, Royce, Dewey) to contemporary thinkers (Putnam, Rorty, John Smith) and my own writings in this area.

Equivalent Course(s): AASR 50081, PHIL 53356, SOCI 50081

SCTH 50087. Max Weber's Sociology of Religion. 100 Units.

Max Weber is perhaps the one undisputed classical figure in the discipline of sociology today. His reputation is to a large extent based on his historical and comparative studies of the "economic ethics" of the world religions and on the formulation of a systematic approach for the historical-sociological study of religion (in the relevant chapter of his "Economy and Society"). The seminar will start with a close reading of the religion chapter in "Economy and Society" and then continue with selections from his comparative studies. The focus of interest will not only be on Weber's theory, but also on the present state of research on the questions Weber was dealing with.

Instructor(s): H. Joas Terms Offered: Not offered 2013-14

Equivalent Course(s): SOCI 50087, AASR 50087

SCTH 50200. Seminar: George Herbert Mead. 100 Units.

While George Herbert Mead's work has been a continual inspiration for sociology and social psychology in the last decades, it has not been appreciated in its full extension. The sociological reception has ignored large parts of Mead's philosophical writings; in philosophy Mead is counted among the most important pragmatists, but the revival of interest in pragmatist philosophy has hardly led to new interpretations of his work. This is particularly regrettable since there is considerable potential in his writings for contemporary questions in moral philosophy, the study of temporality, etc. The seminar starts with a close reading of Mead's best-known book *Mind, Self, and Society*. Since this book is based on notes taken in his classes, we will then continue with some of Mead's essays and selections from his other books. We should reserve some time for discussion about the relationship between Mead and contemporary social thought. Required reading: G. H. Mead, *Mind, Self, and Society*. University of Chicago Press 1934 (and many later editions); Hans Joas, G. H. Mead. *A Contemporary Re-examination of his Thought*. MIT Press 1985 and 1997 (second edition).

Instructor(s): H. Joas
Terms Offered: Not offered 2013-14
Equivalent Course(s): SOCI 50022

SCTH 50201. New Narratives of Secularization and Sacralization. 100 Units.

Equivalent Course(s): AASR 50201, SOCI 50101

SCTH 50204. Destruction of Images, Books & Artifacts in Europe and S. Asia. 100 Units.

The course offers a comparative perspective on European and South Asian iconoclasm. In the European tradition, iconoclasm was predominantly aimed at images, whereas in South Asian traditions it was also extended upon books and buildings. The combination of these traditions will allow us to extend the usual understanding of iconoclasm as the destruction of images to a broader phenomenon of destruction of cultural artifacts and help question the theories of image as they have been independently developed in Europe and South Asia, and occasionally in conversation with one another. We will ask how and why, in the context of particular political imaginaries and material cultures, were certain objects singled out for iconoclasm? Also, who was considered to be entitled or authorized to commit their destruction? Through a choice of concrete examples of iconoclasm, we will query how religious and political motivations are defined, redefined, and intertwined in each particular case. We will approach the iconoclastic events in Europe and South Asia through the lenses of philology, history, and material culture. Class discussions will incorporate not only textual materials, but also the close collaborative study of images, objects, and film. Case studies will make use of objects in the Art Institute of Chicago and Special Collections at the University Library.

Equivalent Course(s): CMLT 50204, SALC 50204, ARTH 40204, CDIN 50204, RLVC 50204, HREL 50204

SCTH 50211. Between Theology and Sociology: Ernest Troeltsch, H. Richard Niebuhr, Paul Tillich. 100 Units.

In the history of the scientific study of religion we find intense processes of mutual exchange between sociology and theology. They go far beyond a mere use of the other discipline as a source of information about society or religion. This course deals with three of the most important figures in this intellectual history: Ernest Troeltsch, whose epochal achievements have become overshadowed by the writings of his friend and rival Max Weber; H. Richard Niebuhr, the often neglected younger brother of the famous Reinhold, who, after having written a dissertation on Troeltsch, developed his crucial contributions on American religion and the tensions between "Christ and Culture"; and Paul Tillich who connected German and American intellectual traditions and became one of the most influential theologians ever including his role as inspiration for the lifework of the sociologist Robert Bellah.

Instructor(s): Hans Joas
Terms Offered: Autumn. Course taught the first five weeks of the quarter - autumn 2018, twice a week.

Prerequisite(s): Graduate seminar - grads only

Equivalent Course(s): SOCI 50107, THEO 50211

SCTH 50212. Expressivism/Historicism/Hermeneutics. 100 Units.

Since the second half of the 18th Century and in opposition to utilitarian or moral forms of rationalism mostly German thinkers developed an understanding a human action as expression (names "expressivism" by Charles Taylor). This became the basis both for a specific understanding of language, texts, and symbols in general ("hermeneutics") and of human history ("historicism"). In this class, crucial texts from this tradition will be read and discussed: from Herder, Kleist, and Schleiermacher via Dilthey and Troeltsch to Gadamer and the present.

Instructor(s): Hans Joas
Terms Offered: Autumn. This course will be taught Autumn 2018 during the first five weeks of the quarter.

Equivalent Course(s): SOCI 50113

SCTH 50400. Logic, Truth, and Pictures. 100 Units.

The course aims at the logic of pictures, but because it is controversial whether such a topic exists, or should exist at all (some arguing that pictures are logical, others that they require a logic *sui generis*), the course will be less a primer in "visual logic" or "logic of artifacts" than a preliminary investigation of what sets pictures apart from and how they are like other modes of thinking. Resemblance, reference, and fiction will be recurring topics; we begin with questions about the nature and peculiarity of pictures and move on to the prospects of arguing about and through pictures, concluding with the questions of their relation to truth. We will actually look at pictures besides talking about them. We will also ask what kind of objects beside conventional two-dimensional images and sculptures might usefully be called pictures. Reading will include classics (Plato, Gombrich), as well as some of the instructor's own work in progress, based on the ideas of Gottlob Frege.

Equivalent Course(s): ARTH 50400

SCTH 50601. Hegel's Science of Logic. 100 Units.

Hegel's chief theoretical work is called *The Science of Logic*. An abridged version is the first part of the various versions of his *Encyclopedia of the Philosophical Sciences*. We shall read and discuss representative passages from both versions, and attempt to understand Hegel's theory of concepts, judgment, and inference, and the place or role of such an account in his overall philosophical position. Several contemporary interpretations of these issues will also be considered. (V)

Instructor(s): R. Pippin Terms Offered: Winter

Prerequisite(s): Prior work in Kant's theoretical philosophy is a prerequisite.

Equivalent Course(s): PHIL 50601

SCTH 50606. Hegel on Logic as Metaphysics. 100 Units.

This course will be an introduction (that is, with no prior knowledge of Hegel presupposed) to what Hegel means by a "science of logic," and why he claims that such a logic should "now" (that is, after Kant), be considered a metaphysics. We will read the "Introduction" and the "Preliminary Conception" in the *Encyclopedia of the Science of Logic* (§1-83), the opening passages of the *The Science of Logic*, and shall conclude with Hegel's discussion of "Life" and "Absolute Idealism" at the end of that *Logic*.

Equivalent Course(s): PHIL 50605

SCTH 51114. Acting and Thinking. 100 Units.

An action, according to Aristotle, can be a logical conclusion of thinking. We shall try to understand this claim by reading book 7 of *Nicomachean Ethics* (we shall discuss Aristotle on practical syllogism, the weakness of the will, the difference between practical and theoretical). We shall proceed to consider the place of these ideas in Kant's *First and Second Critique*. We shall look at commentaries on the relevant texts by E. Anscombe, J. Dancy, S. Engstrom, J. McDowell, A.W. Price, S. Rodl, and others.

Instructor(s): I. Kimhi

Equivalent Course(s): PHIL 51303

SCTH 51302. The Formation of the Modern Concept of History. 100 Units.

Equivalent Course(s): CMLT 42916, PHIL 53102, HIST 52805, CLAS 48916

SCTH 51401. Spinoza's Psychological Politics. 100 Units.

Spinoza's philosophy is classical in conception, in that it aims to show us how to live wisely. But his ethical interpretation of wisdom is shaped by a psychological account of human affect and a firm sense of the empowering role of politics. To live wisely we have to understand our affects and use them to create co-operative ways of life. At the same time, we have to take account of the ways in which our affects are shaped by political circumstances and ideals. This seminar will examine Spinoza's account of the shifting relations between these variables. Drawing on several of his writings (*Ethics*, *Theologico-Political Treatise*, *Political Treatise*, *Correspondence*) we shall examine his central conceptions of affect, imagination, understanding, power and politics. Our discussions will also address a sequence of questions. What constructive and destructive roles does imagination play in political life? How is social co-operation related to understanding? How far can Spinoza's conception of imagination help us to develop a compelling theory of ideology? Is politics, as Spinoza conceives it, fundamentally agonistic? What part does politics play in the blessed life envisioned at the end of the *Ethics*? What makes this way of life more empowering than any other? S. James

Equivalent Course(s): PHIL 57201

SCTH 51411. Freedom and Love in Psychoanalysis (and Life) 100 Units.

This seminar will take up the idea -- developed after Freud, but influenced by him -- that freedom and love are fundamental values in psychoanalysis. And they are fundamental values of psychoanalysis because they are constitutive of flourishing human life. We shall read carefully articles by Hans Loewald, Paul Gray and Heinz Kohut (as well as articles by Lear and Levenson) that try to show how freedom and love show up in the details of human life, often hidden as such, and how psychoanalytic treatment facilitates their development. We shall concentrate on theory and technique: giving clinical vignettes that give concrete realization to these ideals. Students should have previous acquaintance with the writings of Freud as well as Plato's Symposium. The seminar is open to graduate students in Philosophy and Social Thought as well as to undergraduate majors in Philosophy and Fundamentals. All others require permission of the instructors.

Instructor(s): J. Lear and Clinical Prof. L. Levenson (Yale), Visiting Kohut Professor in the Committee on Social Thought. Terms Offered: Spring
Equivalent Course(s): PHIL 51411

SCTH 51414. Monotheism and its Discontents. 100 Units.

This course will study in the same framework some of the most radical heretics among Jews, Christians, and Muslims across the centuries, from antiquity to the twentieth century: dualists, deniers of prophecy, philosophical deists and atheists. The main purpose of this exercise is to detect similar patterns of rejection of the Abrahamic God, and to search for similarities and differences between such patterns and atheistic trends in other cultures, such as ancient Greece. The study of the different ways in which monotheism was rejected in history might help us identify more precisely core elements of the Abrahamic religions.

Equivalent Course(s): ISLM 51414, HIJD 51414

SCTH 51720. Plato and Aristotle on Craft and Wisdom. 100 Units.

Plato and Aristotle both made extensive appeal to craft knowledge as a model for theorizing practical and political wisdom. In this seminar we will examine their conceptions of craft and its relation to wisdom. Readings will likely come from Plato's *Ion*, *Gorgias*, *Republic*, and *Statesman* and Aristotle's *Nicomachean Ethics* and *Metaphysics*. (IV)

Instructor(s): G. Richardson-Lear Terms Offered: Autumn
Equivalent Course(s): PHIL 51715

SCTH 53501. Special Topics in Philosophy of Mind: Imagination. 100 Units.

What is imagination, and what functions does our power of imagination have in our lives? The seminar will approach these general questions via more specific ones such as the following. What are the relations between imagining, perceiving, remembering, and dreaming? Does our capacity for imagination play a role in enabling us to perceive? Does imagining something involve forming a mental image or picture of that thing? If not, how should we conceive of the objects of imagination? What is the nature of our engagement with what we imagine, and how does this engagement explain our ability to feel emotions such as fear, pity, and sympathy for imaginary beings? What is the role of imagination or fantasy in structuring our understanding of ourselves and our relations to other persons? Is there such a thing as the virtuous state of the power of imagination? Readings will be drawn from various classic discussions of imagination - e.g., Aristotle, Hume, Kant, Freud, Wittgenstein, Sartre - and from some contemporary sources. (III)

Instructor(s): M. Boyle; J. Lear Terms Offered: Autumn

Prerequisite(s): Graduate students in Philosophy & Social Thought only, except with permission of instructor.
Equivalent Course(s): PHIL 53501

SCTH 55001. Colloq: Christian Politics in Medieval & Early Modern Europe. 100 Units.

Is there such a thing as a Christian politics, or does all politics in this world take place-as Augustine put it-under the sign of Cain? If there is a this-worldly Christian politics, what should it look like? What are its ends? Where are its borders? Who is sovereign within those borders, and what are the limits of that sovereignty? These and similar questions were asked by the earliest Christian communities and continue to be asked today. This course will focus on how they were answered in the five hundred years stretching from the Investiture Controversy and the emergence of "Christendom" in the late eleventh and twelfth centuries, continuing with the reintroduction of Aristotelian political theory in Latin Europe, and concluding with Luther and Calvin's reformation of the Christian polity in the sixteenth century.

Equivalent Course(s): HCHR 46500, HIST 55001

SCTH 55391. Plato on Beauty and Truth. 100 Units.

Plato thinks that beautiful speech is truthful and that truthful speech is, in some way, beautiful. Why does he think this and why does he think it important? Readings will include portions of the *Republic*, *Sophist*, and *Phaedrus* so as to understand the beauty of philosophical dialectic by contrast with the false beauties of (some) poetry and rhetoric. (IV)

Instructor(s): G. Lear Terms Offered: Autumn
Equivalent Course(s): PHIL 55391, PHIL 45391

SCTH 55392. Aristotle's Politics. 100 Units.

A close reading of this important work of ethical and political theory. Among the topics we will discuss: the relation between the individual and the political community; the relation between private associations and the public, political community; civic virtue; the role of the political community in moral development; slaves and other marginal members of the political community; and the possibility of virtue and happiness in degenerate regimes. (IV)

Instructor(s): G. Lear Terms Offered: Spring

Equivalent Course(s): PHIL 55911

SCTH 55511. Readings from Freud. 100 Units.

This seminar will engage in a close reading of several works by Freud. The aim will be to gain an understanding of the human soul as it is disclosed in psychoanalytic practice. We shall read case histories as well as theoretical works, and ask how theoretical insight arises out of the details of life and speaking. We shall examine the literary forms of Freud's writing. And we shall also inquire into the ethical significance of Freud's work. This will be a small seminar that requires active participation.

Instructor(s): J. Lear Terms Offered: Spring, Course will be taught Spring 2020

Prerequisite(s): Registration by permission of instructor.

Equivalent Course(s): PHIL 55512

SCTH 55603. Being and Creation. 100 Units.

The distinction between essence and existence was introduced as part of metaphysical doctrine of creation in Islamic theology. This doctrine cannot be found among the ancient philosophers but became central to the Scholastics. In the seminar we shall read works by Avicenna, Averroes, and Thomas Aquinas. We shall compare Descartes' and Spinoza's receptions of the creation doctrine. I will propose that central concepts of contemporary philosophy such states of affairs or facts and notions of the mind and of the world that go with them can be traced to the doctrine of creation.

Instructor(s): I. Kimhi Terms Offered: Autumn

Equivalent Course(s): PHIL 51114

SCTH 55604. Metaphysics: Substance, Subject, Freedom. 100 Units.

A graduate seminar devoted to the dual notions of 'substance' and 'subject' which are associated respectively with the ideas of nature and of freedom. We shall look at some of the transformations that the concept of 'ousia' undergoes through the history of philosophy from Aristotle to Kant and German idealism.

Equivalent Course(s): PHIL 55604

SCTH 55605. The Life and Acts of a Being that Says "I" 100 Units.

The being we will study in this course is a subject of thinking/judging and therefore in a sense, all things (Aristotle, *De Anima*), at the same time she is a determinable substance whose determinations include moods, sensations, feelings, intentions, actions. We shall explore the apparent tension between these two descriptions of our being - as a subject-being and as a substance-being - and search for an understanding that resolves it.

Readings include sections from: Aristotle, Kant, Hegel, Sartre, Heidegger, Wittgenstein.

Equivalent Course(s): PHIL 55605

SCTH 55606. The Concept of Anxiety. 100 Units.

Anxiety is discussed in modern philosophy as a mood or feeling which reveals 'nothing'. The class will be devoted to the modern philosophical discourse on "anxiety" and "nothing". Among the texts that we shall study are: Kierkegaard's 'The concept of Anxiety', Heidegger's 'Introduction to Metaphysics', and Sartre's 'Being and Nothingness'. We shall also compare the philosophical concern with anxiety/nothing with the discussion of anxiety in psychoanalysis, especially in Lacan's Seminar 'Anxiety' i.e., seminar 10.

Instructor(s): I. Kimhi Terms Offered: Spring

Equivalent Course(s): PHIL 55606

SCTH 57504. Kant's Critique of Judgment. 100 Units.

This will be a study of Kant's third and final Critique, his Critique of Judgment. We will attempt to survey the book as a whole, including Kant's influential account of the nature of judgments of beauty and sublimity, as well as his theory of "teleological" judgment and its place in our understanding of the natural world. We will also seek to comprehend and assess Kant's claim that these studies constitute essential contributions to a critique of our cognitive power of judgment, a critique which is crucial to the completion of his larger "critical" project surveying the scope and limits of human cognition as a whole. (V)

Instructor(s): M. Boyle Terms Offered: Winter

Prerequisite(s): Graduate Students from Other Departments Must Have Instructor's Consent to Enroll.

Equivalent Course(s): PHIL 57504

SCTH 58500. The Middle Ages in Midcentury Thought. 100 Units.

This seminar will explore the role of the Middle Ages (its literature, art, philosophy, theology) in the intellectual culture of the years during and just after WWII. Readings will pair midcentury thinkers with their medieval interlocutors. For example, Simone Weil will be read alongside texts in the tradition of medieval mysticism; Hannah Arendt, alongside Augustine. Other intellectual figures may include: Erich Auerbach, Ernst Robert Curtius, Norbert Elias, Franz Fanon, Ernst Kantorowicz, Paul Zumthor, Erwin Panofsky, Leo Spitzer, Hans-Georg Gadamer, and Johan Huizinga. (Med/Ren, 20th/21st)

Instructor(s): Benjamin Saltzman Terms Offered: Spring

Equivalent Course(s): ENGL 58500, GRMN 48519

SCTH 59400. Realism, Social Modernism: Aesthetics and Politics Between the Wars. 100 Units.

The theoretical influence of arguments in the 1920s and 1930s about the relative value of realism and modernism is well known, but the entwinement of theory with cultural production and political debates is less so. This intensive reading course will attempt to historicize theory between the world wars--or more specifically between Bolshevik and German revolutionary responses to the first war and Popular Front against the rise of Fascism leading to the second--by reevaluating the work relatively familiar theorists such as Benjamin, Lenin, and esp. Lukacs in the light of their interlocutors, in fiction, film, and drama Brecht, Gladkov, Gorki, Pudovkin, Eisenstein, Dovzhenko, Seghers, Sholokhov, Christa Wolf, Konrad Wolf, Frank Beyer and their counterparts in America, the Living Newspaper, Film and Photo League, writers for New Masses as well as in theory Bloch, Eisler, Zhdanov, Kenneth Burke, Mike Gold, John Howard Lawson, among others. Essential texts are available in English but working knowledge of German (or Russian) and/or marxist theory very helpful.

Instructor(s): Loren Kruger Terms Offered: Autumn

Equivalent Course(s): GRMN 43700, ENGL 59401, CMLT 59400, TAPS 59400, CMST 67100

SCTH 59900. Dissertation Research: Soc Th. 100 Units.

Dissertation research.

Terms Offered: Autumn Spring Summer Winter. Recurring every quarter going forward

Prerequisite(s): Admission to Candidacy or Consent of Instructor. Enter section from faculty list on the web.

SCTH 70000. Advanced Study: Social Thought. 300.00 Units.

Advanced Study: Social Thought



DEPARTMENT OF SOCIOLOGY

Chair

- Karin Knorr

Professors

- Andrew Abbott
- Luc Anselin
- Kathleen A. Cagney, Health Studies
- Terry N. Clark
- Elisabeth S. Clemens
- James A. Evans
- Andreas Glaeser
- Karin Knorr Cetina, Anthropology
- John Levi Martin
- Stephen W. Raudenbush
- Ross M. Stolzenberg
- Linda Waite
- Kazuo Yamaguchi
- Dingxin Zhao

Associate Professors

- Joyce Bell
- Kimberly Hoang
- Omar M. McRoberts
- Kristen Schilt
- Jenny Trinitapoli
- Geoffrey Wodtke

Assistant Professors

- Rene Flores
- Marco Garrido
- Robert Vargas

Visiting Professor

- Hans Joas, Social Thought

Emeritus Faculty

- Ed Laumann
- William L. Parish
- Richard Taub

Associated Faculty

- Luis Bettencourt
- Chad Broughton, Public Policy
- Ronald S. Burt, Business
- Angela Garcia, School of Social Service Administration
- Sharon Hicks-Bartlett
- Gary Herrigel, Political Science
- Guanglei Hong, Comparative Human Development
- Nicole Marwell, School of Social Service Administration
- Susan E. Mayer, Public Policy
- Anna Mueller, Comparative Human Development
- John Padgett, Political Science

- Elizabeth Pontikes, Organizations and Markets
- Amanda Sharkey, Organizations and Markets

OVERVIEW

The Department of Sociology, established in 1893 by Albion Small and Charles A. Henderson, has been centrally involved in the history and development of the discipline in the United States. The traditions of the Chicago School were built by pioneers such as W. I. Thomas, Robert E. Park, Ernest W. Burgess, and William F. Ogburn. It is a tradition based on the interaction of sociological theory with systematic observation and the analysis of empirical data; it is interdisciplinary, drawing on theory and research from other fields in the social sciences and the humanities; it is a tradition which seeks to fuse together concern with the persistent issues of social theory and attention to the pressing social and policy problems of modern society.

Continuous developments in social research have marked the department's work in recent years. The department has pursued a balance in effort between individual scholarship and the development of group research approaches. Faculty members have been engaged in the development of systematic techniques of data collection and in the statistical and mathematical analysis of social data. Field studies and participant observation have been refined and extended. There has been an increased attention to macrosociology, to historical sociology, and to comparative studies. The staff is engaged in individual and large scale group projects which permit graduate students to engage in research almost from the beginning of their graduate careers. The student develops an apprenticeship relation with faculty members in which the student assumes increasing amounts of independence as he or she matures.

RESEARCH

The study of sociology at the University of Chicago is greatly enhanced by the presence of numerous research enterprises engaged in specialized research. Students often work in these centers pursuing collection and study of data with faculty and other center researchers. Students have the opportunity for experience in the following research enterprises: the Ogburn-Stouffer Center for the Study of Social Organizations; the Population Research Center; the Committee on Demographic Training; NORC Research Centers; the Center for the Study of Gender and Sexuality; the Center for the Study of Race, Culture, and Politics; the Chicago Center for Contemporary Theory; the University of Chicago Urban Network; the Center for Health Administration Studies; the Rational Choice Program; and the Center on Demography and Economics of Aging. These provide an opportunity either for field work by which the student brings new primary data into existence or for the treatment of existing statistical and other data. The city of Chicago provides opportunities for a variety of field investigations, and the department also encourages cross national and foreign studies.

The Social Sciences has a strong tradition of comparative and international research, with area studies centers focused on East Asia, South Asia, the Middle East, Latin America, and Eastern Europe and Russia. In addition, graduate students may benefit from activities at the University of Chicago centers in Paris and Beijing as well as the deep roster of language training opportunities available on campus. There are equally diverse training opportunities and infrastructure to support quantitative research including the Survey Laboratory, the training program in Demography, course offerings in Statistics and a number of professional schools as well as a growing interdisciplinary community in computational research methods.

ADMISSION

The Department of Sociology offers a program of studies leading to the Ph.D. degree. It does not have a master's degree program (students interested in a one-year master's program should consider the Divisional Master of Arts Program in the Social Sciences or MAPSS). Students ordinarily earn a master's degree as part of the Ph.D. program upon successful completion of the first year of coursework and the preliminary examination. The department welcomes students who have done their undergraduate work in other social sciences and in fields such as mathematics, biological sciences, and the humanities. The department also encourages students who have had work experience, governmental or military service, or community and business experience to apply.

All applicants for admission are required to submit Graduate Record Examination (GRE) General Test scores. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). A writing sample is required for all applications.

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at <https://apply-ssd.uchicago.edu/apply/>.

Questions pertaining to admissions and aid should be directed to ssd-admissions@uchicago.edu or (773) 702-8415. Most materials in support of the application can be uploaded through the application.

For additional information about the Sociology program, please see <http://sociology.uchicago.edu/> or call (773) 702-8677.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The doctoral program is designed to be completed in five to seven years of study by a student entering with a bachelor's degree. Satisfactory completion of the first phase of the Ph.D. program also fulfills the program requirements for the M.A. degree.

COMMON CORE COURSE REQUIREMENTS

To complete the requirements for the M.A. and Ph.D. degrees, students are required to complete a set of required courses for credit in the first phase of the program. These include SOCI 30002 Principles of Sociological Research, and SOCI 30003 History of Social Theory. First-year students are required to register for SOCI 60020 1st-Year Proseminar Research Questions and Design, a non-credit colloquium, in Autumn, Winter, and Spring. Also required is SOCI 30006 Second/Third Year Writing Seminar-1 and SOCI 30007 Second/Third Year Writing Seminar-2 in Winter and Spring of both the second and third years of study.

STATISTICS REQUIREMENT

Students seeking the doctorate are also required to complete SOCI 30004 Statistical Methods of Research and SOCI 30005 Statistical Methods of Research-II during the first year. The department approves alternative sequences during the first year for students with strong preparation in statistics or mathematics. All students, however, are to take two courses in statistics in the first year of study.

M.A. EXAMINATIONS

First-year Ph.D. students are required to take a total of five sociology (SOCI) courses designated as "exam courses" among their nine graded courses; designated exam courses will vary from year to year. The courses are divided into ten topic areas. Students are required to take SOCI 30003 History of Social Theory as their first exam course. For the remaining four courses, students select ONE course each from four additional subject areas. Students are not allowed to count multiple courses from the same subject area or to substitute in courses that are not on the list of designated exam courses for their cohort year.

THE QUALIFYING PAPER

The qualifying paper should represent an original piece of scholarship or theoretical analysis and must be written in a format appropriate for submission to a professional publication. Note that the requirement is "publishable," not "published," although many recent papers have been presented at professional conferences and eventually published. The paper is prepared under the direct supervision and approval of a faculty member and may be written or revised in connection with one or more regular courses. Students entering with M.A. papers may petition to submit an supervised revision to meet the qualifying paper requirement.

SPECIAL FIELD REQUIREMENT

Ph.D. students are required to demonstrate competence in two special fields of sociological inquiry. The Special Field Requirement is to be met during the third year of graduate study. Students must pass the M.A. Examinations at the Ph.D. level before meeting the Special Field Requirement. This requirement may be met in three ways: by examination, with a review essay, or through a specified sequence of methods courses. Both the examination and review essay options are prepared on an individual basis, overseen by two faculty readers, in the fields of sociology in which the student wishes to develop research competence; one should be related to the subject of the subsequent Ph.D. dissertation. Special Fields cover both theoretical and substantive materials as well as the methods required for effective research. Preparation takes the form of specialized courses and seminars, supplemented by independent study and reading. For either an exam or essay, the student must first construct a bibliography to be approved by both faculty readers; readers must also agree in advance to either the examination or review essay format. The fields most commonly taken are urban sociology, organizational analysis, sociology of gender, sociology of education, culture/STS/knowledge, sociology of health and medicine, economic sociology, political sociology, stratification, social movements/change, and sociology of religion. One of the two special field requirements may be met with a sequence of courses. Three types of special fields in methodology are recognized: (1) social statistics, (2) survey research methods, and (3) qualitative methods.

DISSERTATION

The student prepares a research plan under the guidance of a designated faculty committee. The plan is subject to review by the faculty committee organized by each student to determine whether the project is feasible and to assist in the development of research. Upon approval of the dissertation proposal (by the first quarter of the fifth year of study) and completion of the other requirements listed above, the department recommends that the Division of the Social Sciences formally admit the student to candidacy for the Ph.D. degree. When the dissertation is completed, an oral examination is held on the dissertation and the field to which it is related.

TEACHING OPPORTUNITIES

The Department of Sociology offers opportunities for campus teaching which give graduate students increasing responsibility for classroom instruction. After completing the second year of study, students may apply to the department to become teaching assistants with the opportunity to discuss course design, teach under supervision of a faculty member, and review student work. There are also opportunities to teach in the social science courses included in the College Core Curriculum. Typically, students apply for positions as teaching interns in their 3rd or 4th year. Upon successful completion of an internship, graduate students are

eligible for consideration as independent instructors of College level courses. Note that offers of admission and fellowship include a teaching requirement and that completion of a specified number of teaching appointments is a divisional requirement for the doctorate.

GRADUATE WORKSHOPS

Students in sociology are invited to participate in the program of Graduate Workshops in the Humanities and Social Sciences, a series of interdepartmental discussion groups that bring faculty and advanced graduate students together to discuss their current work. At the workshops, Chicago faculty and students or invited guests present portions of books or other projects in which they are currently engaged. Workshops in which students and faculty in the department participate include those addressed to the following topics: City, Society, and Space; Computational Social Science; Demography; East Asia: Politics, Economy, and Society; Education, Gender and Sexuality; History, Philosophy, and Sociology of Science; Money, Markets, and Consumption; Reproduction of Race and Racial Ideology; Semiotics: Culture in Context; and Social Theory and Evidence.

SOCIOLOGY COURSES

SOCI 30002. Principles of Sociological Research. 100 Units.

Explores how theoretical questions and different types of evidence inform decisions about methodological approach and research design. This course is required for first year Sociology PhD students.

Instructor(s): R. Vargas Terms Offered: Autumn

Prerequisite(s): Open only to 1st year Sociology PhD students

SOCI 30003. History of Social Theory. 100 Units.

This course is an introduction to sociological theory. It will cover Marx, Weber, Durkheim, Simmel, Mead, Dewey, the Chicago School, Bourdieu, and possibly others.

Instructor(s): K. Hoang Terms Offered: Autumn

Prerequisite(s): Open only to 1st-year Sociology Phd students

SOCI 30004. Statistical Methods of Research. 100 Units.

This course provides a comprehensive introduction to widely used quantitative methods in sociology and related social sciences. Topics include analysis of variance and multiple regression, considered as they are used by practicing social scientists.

Instructor(s): S. Raudenbush Terms Offered: Winter

Prerequisite(s): Priority registration for Ugrad Sociology majors and Sociology PhD students. No prior instruction in statistical analysis is required. Others by consent of instructor.

Note(s): Students are expected to attend two lectures and one lab per week. Required of students who are majoring in Sociology

Equivalent Course(s): SOCI 20004

SOCI 30005. Statistical Methods of Research-II. 100 Units.

Social scientists regularly ask questions that can be answered with quantitative data from a population-based sample. For example, how much more income do college graduates earn compared to those who do not attend college? Do men and women with similar levels of training and who work in similar jobs earn different incomes? Why do children who grow up in different family or neighborhood environments perform differently in school? To what extent do individuals from different socioeconomic backgrounds hold different types of political attitudes and engage in different types of political behavior? This course explores statistical methods that can be used to answer these and many other questions of interest to social scientists. The main objectives are to provide students with a firm understanding of linear regression and generalized linear models and with the technical skills to implement these methods in practice.

Instructor(s): G. Wodtke Terms Offered: Spring

Prerequisite(s): SOCI 30004

SOCI 30006. Second/Third Year Writing Seminar-1. 50 Units.

A required seminar that will meet over two quarters. Doctoral students in Sociology are required to take this seminar in both their second and third years. Second-year students will focus on developing a project for their Qualifying Paper. Third-year students will start from a completed Qualifying Paper and revise it for presentation at professional meetings and possible publication. Some students may move on to developing grant proposals or a first draft of a dissertation proposal.

Instructor(s): M. Garrido, O. McRoberts Terms Offered: Winter

Prerequisite(s): Sociology PhD students only

SOCI 30007. Second/Third Year Writing Seminar-2. 50 Units.

A required seminar that will meet over two quarters. Doctoral students in Sociology are required to take this seminar in both their second and third years. Second-year students will focus on developing a project for their Qualifying Paper. Third-year students will start from a completed Qualifying Paper and revise it for presentation at professional meetings and possible publication. Some students may move on to developing grant proposals or a first draft of a dissertation proposal.

Instructor(s): M. Garrido, O. McRoberts Terms Offered: Spring

Prerequisite(s): Sociology PhD students only

SOCI 30103. Social Stratification. 100 Units.

Social stratification is the unequal distribution of the goods that members of a society value - earnings, income, authority, political power, status, prestige etc. This course introduces various sociological perspectives about stratification. We look at major patterns of inequality throughout human history, how they vary across countries, how they are formed and maintained, how they come to be seen as legitimate and desirable, and how they affect the lives of individuals within a society. The readings incorporate classical theoretical statements, contemporary debates, and recent empirical evidence. The information and ideas discussed in this course are critical for students who will go on in sociology and extremely useful for students who want to be informed about current social, economic, and political issues.

Instructor(s): R. Stolzenberg Terms Offered: Winter

Equivalent Course(s): SOCI 20103

SOCI 30104. Urban Structure and Process. 100 Units.

This course reviews competing theories of urban development, especially their ability to explain the changing nature of cities under the impact of advanced industrialism. Analysis includes a consideration of emerging metropolitan regions, the microstructure of local neighborhoods, and the limitations of the past American experience as a way of developing urban policy both in this country and elsewhere.

Instructor(s): M. Garrido Terms Offered: Spring

Equivalent Course(s): CRES 20104, SOCI 20104, GEOG 22700, SOSC 25100, GEOG 32700

SOCI 30106. Political Sociology. 100 Units.

This course provides analytical perspectives on citizen preference theory, public choice, group theory, bureaucrats and state-centered theory, coalition theory, elite theories, and political culture. These competing analytical perspectives are assessed in considering middle-range theories and empirical studies on central themes of political sociology. Local, national, and cross-national analyses are explored. The course covers readings for the Sociology Ph.D Prelim exam in political sociology.

Instructor(s): E. Clemens Terms Offered: Autumn

Prerequisite(s): Completion of the general education requirement in the social sciences

Equivalent Course(s): SOCI 20106, ENST 23500, PBPL 23600

SOCI 30112. Applications of Hierarchical Linear Models. 100 Units.

A number of diverse methodological problems such as correlates of change, analysis of multi-level data, and certain aspects of meta-analysis share a common feature—a hierarchical structure. The hierarchical linear model offers a promising approach to analyzing data in these situations. This course will survey the methodological literature in this area, and demonstrate how the hierarchical linear model can be applied to a range of problems.

Instructor(s): S. Raudenbush Terms Offered: Spring

Prerequisite(s): Applied statistics at a level of multiple regression

Equivalent Course(s): EDSO 30112, PPHA 44650, EDSO 20112, SOCI 20112

SOCI 30116. Global-Local Politics. 100 Units.

Globalizing and local forces are generating a new politics in the United States and around the world. This course explores this new politics by mapping its emerging elements: the rise of social issues, ethno-religious and regional attachments, environmentalism, gender and life-style identity issues, new social movements, transformed political parties and organized groups, and new efforts to mobilize individual citizens.

Instructor(s): T. Clark Terms Offered: Winter

Equivalent Course(s): GEOG 30116, HMRT 20116, GEOG 20116, SOCI 20116, HMRT 30116, PBPL 27900, LLSO 20116

SOCI 30118. Survey Research Overview. 100 Units.

The course provides an overview of interview-based data collection methods. Each student must develop a research question to guide their research design. Students get an overview of different interview-based data collection methods (focus groups, key-informant interviews, large-N sample surveys), how to sample and design a questionnaire or interview guide for their project, and the nuts and bolts of actual recruitment, receipt control and survey administration. The instructor provides feedback for proposed elements of each student's research plan through weekly assignments. The final paper is a research proposal that outlines a plan for research to address the student's research question.

Instructor(s): M. Van Haitsma Terms Offered: Autumn Winter. entativley

Equivalent Course(s): SOSC 30900, SSAD 53200, MAPS 30900

SOCI 30120. Urban Policy Analysis. 100 Units.

This course addresses the explanations available for varying patterns of policies that cities provide in terms of expenditures and service delivery. Topics include theoretical approaches and policy options, migration as a policy option, group theory, citizen preference theory, incrementalism, economic base influences, and an integrated model. Also examined are the New York fiscal crisis and taxpayer revolts, measuring citizen preferences, service delivery, and productivity.

Instructor(s): T. Clark Terms Offered: Autumn

Equivalent Course(s): SOCI 20120, GEOG 30120, GEOG 20120, PBPL 24800

SOCI 30125. Rational Foundations of Social Theory. 100 Units.

This course introduces conceptual and analytical tools for the micro foundations of macro and intermediate-level social theories, taking as a basis the assumption of rational action. Those tools are then used to construct theories of power, social exchange, collective behavior, socialization, trust, norm, social decision making and justice, business organization, and family organization.

Instructor(s): K. Yamaguchi Terms Offered: Winter

Equivalent Course(s): SOCI 20125

SOCI 30126. Japanese Society: Functional/Cultural Explanations. 100 Units.

The objective of this course is to provide an overview of social structural characteristics and the functioning of contemporary Japanese society by a juxtaposition of universalistic functional (or rational) explanations and particularistic cultural (and historical) explanations. As well become clear as complementary to each other. Substantively, the course primarily focuses on 1) the forms of social interaction and structure, 2) work organization and family, and 3) education, social inequality, and opportunity. The course also presents discussions of the extent to which Japan is "unique" among industrial societies. In covering a broad range of English-language literature on Japanese society, the course not only presents reviews and discussions of various alternative theoretical explanations of the characteristics of Japanese society, but also a profound opportunity to critically review and study selected sociological theories..

Instructor(s): K. Yamaguchi Terms Offered: Spring

Equivalent Course(s): SOCI 20126

SOCI 30179. Labor Force and Employment. 100 Units.

This course introduces key concepts, methods, and sources of information for understanding the structure of work and the organization of workers in the United States and other industrialized nations. We survey social science approaches to answering key questions about work and employment, including: What is the labor force? What determines the supply of workers? How is work organized into jobs, occupations, careers, and industries? What, if anything, happened to unions? How much money do workers earn and why? What is the effect of work on health? How do workers and employers find each other? Who is unemployed? What are the employment effects of race, gender, ethnicity, and religion?

Instructor(s): R. Stolzenberg Terms Offered: Spring

Equivalent Course(s): SOCI 20179

SOCI 30192. The Effects of Schooling. 100 Units.

From at least the Renaissance until some time around the middle of the twentieth century, social class was the pre-eminent, generalized determinant of life chances in European and, eventually, American societies. Social class had great effect on one's social standing; economic well-being; political power; access to knowledge; and even longevity, health, and height. In that time, there was hardly an aspect of life that was not profoundly influenced by social class. In the ensuing period, the effects of social class have receded greatly, and perhaps have even vanished. In their place formal schooling has become the great generalized influence over who gets access to the desiderata of social life, including food, shelter, political power, and medical care. So it is that schooling is sociologically interesting for reasons that go well beyond education. The purpose of this course is to review what is known about the long-term effects of schooling.

Instructor(s): R. Stolzenberg Terms Offered: Spring

Equivalent Course(s): EDSO 20192, SOCI 20192, EDSO 30192

SOCI 30224. Topics in Sociology of Culture. 100 Units.

This class surveys the historical bases and current extension of core readings in the sociology of culture. These works will be investigated not only in their own terms, but their position in central issues revolving around the independence (or lack of same) of cultural production communities; the omnivore/unibrow question; the role of culture in larger (and smaller) political and social environments; the use of hierarchical as opposed to non-hierarchical models of social structure; and the location of meaning.

Instructor(s): T. Clark, J. Martin Terms Offered: Spring

SOCI 30233. Race in Contemporary American Society. 100 Units.

This survey course in the sociology of race offers a socio-historical investigation of race in American society. We will examine issues of race, ethnic and immigrant settlement in the United States. Also, we shall explore the classic and contemporary literature on race and inter-group dynamics. Our investigative tools will include an analysis of primary and secondary sources, multimedia materials, photographic images, and journaling. While our survey will be broad, we will treat Chicago and its environs as a case study to comprehend the racial, ethnic, and political challenges in the growth and development of a city.

Instructor(s): S. Hicks-Bartlett Terms Offered: Autumn Spring. Autumn quarter offered at the Undergraduate level only and Spring offered at the Graduate level only

Equivalent Course(s): SOCI 20233, MAPS 30233

SOCI 30252. Urban Innovation: Cultural Place Making and Scenescapes. 100 Units.

Activists from Balzac, Jane Jacobs, and others today seek to change the world using the arts. Ignored by most social science theories, these new cultural initiatives and policies are increasing globally. Urban planning and architecture policies, walking and parades, posters and demonstrations, new coffee shops and storefront churches reinforce selective development of specific cities and neighborhoods. These transform our everyday social environments into new types of scenes. They factor into crucial decisions, about where to work, to open a business, to found a political activist group, to live, what political causes to support, and more. The course reviews new case studies and comparative analyses from China to Chicago to Poland that detail these processes. Students are encouraged to explore one type of project.

Instructor(s): T. Clark Terms Offered: Spring

Equivalent Course(s): SOCI 20252

SOCI 30253. Introduction to Spatial Data Science. 100 Units.

Spatial data science consists of a collection of concepts and methods drawn from both statistics and computer science that deal with accessing, manipulating, visualizing, exploring and reasoning about geographical data. The course introduces the types of spatial data relevant in social science inquiry and reviews a range of methods to explore these data. Topics covered include formal spatial data structures, geovisualization and visual analytics, rate smoothing, spatial autocorrelation, cluster detection and spatial data mining. An important aspect of the course is to learn and apply open source software tools, including R and GeoDa.

Instructor(s): L. Anselin and M. Kolak Terms Offered: Autumn

Prerequisite(s): STAT 22000 (or equivalent), familiarity with GIS is helpful, but not necessary

Equivalent Course(s): SOCI 20253, MACS 54000, GEOG 30500, ENST 20510, GEOG 20500

SOCI 30258. Maverick Markets: Cultural Economy and Cultural Finance. 100 Units.

What are the cultural dimensions of economic and financial institutions and financial action? What social variables influence and shape 'real' markets and market activities? 'If you are so smart, why aren't you rich?' is a question economists have been asked in the past. Why isn't it easy to make money in financial areas even if one knows what economists know about markets, finance and the economy? And why, on the hand, is it so easy to get rich for some participants? Perhaps the answer is the real markets are complex social and cultural institutions which are quite different from organizations, administrations and the production side of the economy. The course provides an overview over social and cultural variables and patterns that play a role in economic behavior and specifically in financial markets. The readings examine the historical and structural embeddedness of economic action and institutions, the different constructions and interpretations of money, prices, and other dimensions of a market economy, and how a financial economy affects organizations, the art and other areas.

Instructor(s): K. Knorr Terms Offered: Spring

Equivalent Course(s): ANTH 35405, ANTH 25440, SOCI 20258

SOCI 30264. Wealth. 100 Units.

Wealth is the value of a person's accumulated possessions and financial assets. Wealth is more difficult for social researchers to measure than earnings and income, and wealthy people are notoriously uncooperative with efforts to study them and their assets. Further, wealth data conveys less information than income data about the lives of the middle- and lower-classes -- who tend to have little or no wealth at all. However, information about wealth gives fundamentally important insight into the values, attitudes, behavior, consumption patterns, social standing, political power, health, happiness and yet more characteristics of individuals and population subgroups. This course considers the causes and consequences of wealth accumulation for individuals, the social groups to which they belong, and the societies in which they dwell.

Instructor(s): R. Stolzenberg Terms Offered: Winter

Equivalent Course(s): SOCI 20264

SOCI 30279. Historical Sociology of Racism Latin America. 100 Units.

The course will examine the discourse on race, racism, and racial inequalities through the available sociological literature. Special emphasis will be placed on the emergency of social movements and collective agencies that have shaped the present racial order in the region. This course will first present how racialization processes intermingled with the formation of mestizo nation-states in Latin America, and, by doing so, establishing racial democracy as the corner stone of modern democracies (1920s to 1960s). Second, examine how authoritarian regimes promoted economic development but were incapable of curtailing social inequalities in the region, eventually dismantling the international perception of these countries as racial democracies (1960s to 1980s). And, finally, explore how processes of racial formation operated in the whole region, giving way to the formation of multiracial nations and to the visibility of racism as a structural component of these societies (1990s to 2010s).

Instructor(s): Antonio Sergio Guimarães Terms Offered: Spring

Equivalent Course(s): LACS 35118, CRES 25118, PPHA 37005, SOCI 20279, LACS 25118

SOCI 30293. Global Family Change. 100 Units.

This course examines sociological perspectives on changes in marriage and childbearing that have swept the globe from 1850-today. We will examine changes in arranged marriage, marriage timing, first birth timing, contraception to limit childbearing, family size and divorce. We will review theories of family change, research designs for studying family change, and empirical data about family change. We will investigate family changes in specific sites in Africa, Asia, the Americas, Europe and the European diaspora. The course will also investigate specific factors likely to produce family change, including industrialization, mass education, mass media, health care, migration, and attitudes and beliefs. Finally, the course will consider some of the important consequences of these changing families around the world. Students will prepare an in-depth study of family change in one specific place and time. Course examples will highlight family changes in South Asia, but students are welcome to select any region and time period for their own study.

Instructor(s): W. Axinn Terms Offered: Autumn

Equivalent Course(s): SOCI 20293

SOCI 30303. Urban Landscape As Social Text. 100 Units.

The seminar explores conceptually how urban landscapes are formed (literally) and reciprocally how they inform social perceptions of community settings (figuratively). This is done through an initial program of reading and discussion, as well as pursuit of individual student projects, discussed as they progress, leading to a final research paper. The course serves students searching for and defining possible thesis and dissertation topics, as well as those interested in exploring an intellectual curiosity for its own sake. - CONZEN Fall Quarter

Instructor(s): M. Conzen Terms Offered: Autumn

Prerequisite(s): Advanced standing and consent of instructor.

Equivalent Course(s): GEOG 42400

SOCI 30315. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverse-probability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for cross-section and panel data, and fixed effects model. Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005 is a prerequisite. This course is a prerequisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong, K. Yamaguchi Terms Offered: Winter

Prerequisite(s): Intermediate Statistics or equivalent such as STAT 224/PBHS 324, PP 31301, BUS 41100, or SOC 30005

Note(s): CHDV Distribution: M; M

Equivalent Course(s): PBHS 43201, CHDV 30102, STAT 31900, CHDV 20102, PLSC 30102, MACS 51000

SOCI 40103. Event History Analysis. 100 Units.

An introduction to the methods of event history analysis will be given. The methods allow for the analysis of duration data. Non-parametric methods and parametric regression models are available to investigate the influence of covariates on the duration until a certain event occurs. Applications of these methods will be discussed i.e., duration until marriage, social mobility processes organizational mortality, firm tenure, etc.

Instructor(s): K. Yamaguchi Terms Offered: Spring

SOCI 40133. Computational Content Analysis. 100 Units.

A vast expanse of information about what people do, know, think, and feel lies embedded in text, and more of the contemporary social world lives natively within electronic text than ever before. These textual traces range from collective activity on the web, social media, instant messaging and automatically transcribed YouTube videos to online transactions, medical records, digitized libraries and government intelligence. This supply of text has elicited demand for natural language processing and machine learning tools to filter, search, and translate text into valuable data. The course will survey and practically apply many of the most exciting computational approaches to text analysis, highlighting both supervised methods that extend old theories to new data and unsupervised techniques that discover hidden regularities worth theorizing. These will be examined and evaluated on their own merits, and relative to the validity and reliability concerns of classical content analysis, the interpretive concerns of qualitative content analysis, and the interactional concerns of conversation analysis. We will also consider how these approaches can be adapted to content beyond text, including audio, images, and video. We will simultaneously review recent research that uses these approaches to develop social insight by exploring (a) collective attention and reasoning through the content of communication; (b) social relationships through the process of communication; and (c) social state

Instructor(s): James Evans Terms Offered: Winter

Equivalent Course(s): CHDV 30510, MACS 60000

SOCI 40142. Library Methods for the Social Sciences. 100 Units.

This course is a graduate introduction to the methods involved with "research with records"—that is, material like manuscripts, books, journals, newspapers, ephemera, and government and institutional documents. (Such material has been typically printed but may now be stored electronically as well as physically.) The course covers the essentials of project design, bibliography, location, access, critical reading, source evaluation and provenance, knowledge categorization and assembly, and records maintenance. The course is a methodological practicum and will involve both small-scale exercises and a larger project. Major texts include Thomas Mann's Oxford Guide to Library Research and Andrew Abbott's Digital paper.

Instructor(s): A. Abbott Terms Offered: Autumn

Note(s): Advanced undergrads by consent

Equivalent Course(s): SOCI 20281

SOCI 40156. Hermeneutic Sociology. 100 Units.

The core ideas of a social hermeneutics (as distinct from, yet building on the classical traditions of textual hermeneutics) were developed in the late 18th and early 19th centuries. They can be roughly summarized in a few intertwining propositions: First, discursive, emotive and sensory modalities of sense making (interpretation, world making...), conscious and unconscious are a key differentiator of human life forms across time and space. Second, sense making is acting and as such dialectically entangled with acting more generally. Third, sense making necessarily proceeds in diverse media whose structures and habits of use deeply shape the sense making process whence the necessity to attend to form and style. Fourth, sense making is a social activity structured by the relationships within which they take place. Fifth, the sense making activities actually performed are crucial for the reproduction of structures of media and life forms. Sixth, sense making, life forms, and media are dialectically (co-constitutively) intertwined with each other. And finally, seventh, social hermeneutics is itself sense-making. The course will explore these ideas by reading classical statements that highlight the core analytic concepts that social hermeneuticists employ such as symbolization, interpretation, mediation, rhetoric, performance, performativity, interpretive community, institutionalization. Every session will combine a discussion of the readings with an analytical practicum using

Instructor(s): A. Glaeser Terms Offered: Spring

Prerequisite(s): Fulfills part of the KNOW Core Seminar req for SIFK Dissertation Research Fellowship; PhD students must register under KNOW 31407 for this course to meet req.

Equivalent Course(s): ANTH 40150, KNOW 31407

SOCI 40164. Involved Interviewing: Strategies for Interviewing Hard to Penetrate Communities and Populations. 100 Units.

Imagine that you must interview someone who hails from a background unlike your own; perhaps you need to interview an incarcerated youth, or gather a life history from an ill person. Maybe your task is to conduct fieldwork inside a community that challenges your comfort level. How do we get others to talk to us? How do we get out of our own way and limited training to become fully and comfortably engaged in people and the communities in which they reside? This in-depth investigation into interviewing begins with an assumption that the researcher as interviewer is an integral part of the research process. We turn a critical eye on the interviewer's role in getting others to talk and learn strategies that encourage fertile interviews regardless of the situational context. Weekly reading assignments facilitate students' exploration of what the interview literature can teach us about involved interviewing. Additionally, we critically assess our role as interviewer and what that requires from us. Students participate in evaluating interview scenarios that are designed to explore our assumptions, sharpen our interviewing skills and troubleshoot sticky situations. We investigate a diversity of settings and populations as training ground for leading effective interviews. The final project includes: 1) a plan that demonstrates knowledge of how to design an effective interviewing strategy for unique field settings; 2) instructor's feedback on students' personal journals on the role of the interviewer.

Instructor(s): S. Hicks-Bartlett Terms Offered: Autumn Winter

Prerequisite(s): Graduate students only

Equivalent Course(s): MAPS 40164

SOCI 40176. Computing for the Social Sciences. 100 Units.

This is an applied course for the social scientists with little-to-no programming experience who wish to harness growing digital and computational resources. The focus of the course is on generating reproducible research through the use of programming languages and version control software. Major emphasis is placed on a pragmatic understanding of core principles of programming and packaged implementations of methods. Students will leave the course with basic computational skills implemented through many computational methods and approaches to social science; while students will not become expert programmers, they will gain the knowledge of how to adapt and expand these skills as they are presented with new questions, methods, and data. More information can be found at <https://cfss.uchicago.edu>

Instructor(s): Benjamin Soltoff Terms Offered: Autumn

Note(s): MACS students have priority.

Equivalent Course(s): ENST 20550, PLSC 30235, MAPS 30500, MACS 30500, SOCI 20278, MACS 20500, CHDV 30511

SOCI 40177. Coding & Analyzing Qualitative Data: Using Open-Source Computer Asst. Qualitative Data Analysis. 100 Units.

This is a graduate-level course in coding and analyzing qualitative data (e.g., interview transcripts, oral histories, focus groups, letters, and diaries, etc). In this hands-on-course students learn how to organize and manage text-based data in preparation for analysis and final report writing of small scale research projects. Students use their own laptop computers to access one of two free, open-source software programs available for Windows, Mac, and Linux operating systems. While students with extant interview data can use it for this course, those without existing data will be provided text to code and analyze. This course does not cover commercial CAQDAS, such as AtlasTi, NVivo, The Ethnograph or Hypertext.

Instructor(s): S. Hicks-Bartlett Terms Offered: Spring Winter
Equivalent Course(s): MAPS 40177

SOCI 40192. Seminar: The Family. 100 Units.

This seminar will focus on classic and current readings on the family, including the family as an institution, changes in family structure and function, new family forms, cohabitation, marriage, union dissolution, fertility, sexuality, working families, intergenerational relations, and family policy. We will discuss the readings for the week, with a focus on evaluating both the research and the ideas. Students will develop a research project on the family and prepare a paper outlining the project, providing a theoretical framework, background, hypotheses and approach. This might serve as the basis for a qualifying paper.

Instructor(s): L. Waite Terms Offered: Autumn
Prerequisite(s): Advanced Undergrads Consent of Instructor
Equivalent Course(s): CHDV 40192

SOCI 40216. Politics and Political Knowledge Ancient and Modern. 100 Units.

This course begins by wondering what aspect and dynamic of human acting in relation to others we may wish to grasp as political. To pursue this question we will engage classical and contemporary texts on the political by Weber, Schmitt, Arendt, Lefort, Ranciere and Laclau. Pursuing the question of the political will inevitably raise another: that of the modalities of knowing required for conducting politics. This will lead us to supplement the first set of readings with texts interested in the sources of this knowledge including some of the classics in the sociology of knowledge from Lukacs and Mannheim to Foucault and Scott. In the third part of this class, we will let this panoply of theorists meet history by exploring forms of politics and political knowing developed and critiqued in classical Athens-the traditional terminus a quo for Europeanoid reflections on politics. It is in there that we will not only find illuminating historical materials to interrogate the interplay between political practices and knowledge, but in Plato's work as a response to the political crisis brought about by the trauma of war, we will find a vision of a modality of knowing that sets out to eclipse politics in knowledge as expertise. And that will throw us right back into the modern.

Instructor(s): A. Glaeser Terms Offered: Spring
Prerequisite(s): Undergraduates with consent of instructor
Equivalent Course(s): ANTH 40156

SOCI 40217. Spatial Regression Analysis. 100 Units.

This course covers statistical and econometric methods specifically geared to the problems of spatial dependence and spatial heterogeneity in cross-sectional data. The main objective of the course is to gain insight into the scope of spatial regression methods, to be able to apply them in an empirical setting, and to properly interpret the results of spatial regression analysis. While the focus is on spatial aspects, the types of methods covered have general validity in statistical practice. The course covers the specification of spatial regression models in order to incorporate spatial dependence and spatial heterogeneity, as well as different estimation methods and specification tests to detect the presence of spatial autocorrelation and spatial heterogeneity. Special attention is paid to the application to spatial models of generic statistical paradigms, such as Maximum Likelihood, Generalized Methods of Moments and the Bayesian perspective. An important aspect of the course is the application of open source software tools such as R, GeoDa and PySal to solve empirical problems.

Instructor(s): Staff Terms Offered: Spring
Equivalent Course(s): MACS 55000, GEOG 40217

SOCI 40225. Sociology of Education. 100 Units.

Education plays a fundamental role in society, both because it determines individuals' life chances and because it has the power to reproduce or ameliorate inequality in society. In this course, we will discuss theoretical and empirical research that examines how schools both perpetuate socioeconomic inequality and provide opportunities for social mobility. We will pay particular attention to the role of schools in the intergenerational transmission of social status, especially based on race, class, gender, and immigrant status and with an emphasis on the U.S. We will also discuss the social side of schools, delving into (1) the role of adolescent culture(s) in youths' educational experiences and human development and (2) social psychological aspects of schooling. Schools are the primary extra-familial socializing institution that youth experience; thus, understanding how schools work is central to understanding the very structure of societies as well as the transition from childhood to adulthood.

Instructor(s): A. Mueller Terms Offered: Autumn
Note(s): CHDV Distribution: 2*
Equivalent Course(s): CHDV 40128

SOCI 40233. Sociology of Immigration. 100 Units.

This graduate seminar seeks to cover the main topics in this vast field. Topics include: determinants of migration, immigrant assimilation, transnationalism, immigration and race, immigration policies, immigration attitudes and public opinion, and illegality. We will also devote some time to immigrant-receiving contexts outside of the U.S. especially Western Europe. The purpose of the class is to encourage graduate students to develop their own immigration research projects. We will pay special attention to research design and methodological issues.

Instructor(s): R. Flores Terms Offered: Autumn

SOCI 40234. Race and Ethnicity in Comparative Perspective. 100 Units.

This graduate seminar seeks to cover the main topics in this vast field from an international comparative perspective. We will compare the U.S. context, where race is typically seen as the fundamental social division, to other societies in Latin America and Europe in which ethnoracial boundaries have also emerged. Topics include: conceptual foundations of race and ethnicity, racial and ethnic identities, racial classification, race and inequality, racial attitudes and public opinion, and race and public policy. Class is designed to encourage graduate students to develop their own race and ethnicity research projects. We will pay special attention to research design and methodological issues.

Instructor(s): R. Flores Terms Offered: Spring. Not being offered in 2019/2020

SOCI 50076. Logic of Social Science Inquiry. 100 Units.

Largely drawing on the literature of social movement, revolution, and historical sociology, this seminar surveys the methodologies that social scientists use to construct stories for the cases that interest them, including deductive reasoning, simulation, correlative thinking, mechanism-based analysis, case-based comparison, historical method, dialectics, conceptualization, hermeneutics, and more. The course discusses the pros and cons of each of these methods and ways to combine these methods to achieve better strategies for telling stories about ourselves and about the past and present.

Instructor(s): D. Zhao Terms Offered: Winter

SOCI 50092. Sem: Religion and Politics. 100 Units.

In this seminar we will consider meanings of religion and politics, and examine their interactions from a comparative perspective. After digesting alternative theoretical understandings of the relationship between religion, states, and political processes, we will turn to empirical accounts that illuminate historical and local issues at points around the globe. Among other phenomena, students will explore patterns of secularization, religious nationalism, fundamentalisms, and policy-oriented religious social movements.

Instructor(s): O. McRoberts Terms Offered: Winter

SOCI 50106. Sem: The Social Process. 100 Units.

This course sets forth a general analysis of the social process, based on the exposition of a processual theoretical system. It begins with desiderata for the theory, then proceeds through the topics of orders, events, locality, lineage, stability, and entity processes to the usual micro and macro analyses of social life.

Instructor(s): A. Abbott Terms Offered: Winter

SOCI 50116. Sem: Economy and Law. 100 Units.

This course examines major theoretical perspectives and social science research on the relationship between law, economics, and society. It explores the relationship between law and economy in an increasingly globalized world via international flows of capital, commodities, and people and the ways that transactions and relationships are supported or regulated by various legal structures. We will focus on legal developments in emerging markets and transitional economies to examine how different laws at the level of the nation state cohere and conflict with one another.

Instructor(s): K. Hoang Terms Offered: Autumn. Not being Offered in 2019/2020

SOCI 50118. Sem: Population. 100 Units.

This course provides a substantive overview of the field of demography -- the study of human populations, past, present and future. We focus on trends and causes and consequences of change in the three basic components of population change: mortality, fertility, migration. We will also cover a few sub-fields outside the big three, including segregation and population health. By the end of the quarter, students will have been introduced to the major substantive issues, debates, and methods of the field. The course is non-technical but assumes graduate-level literacy in statistics and quantitative reasoning. We will focus on understanding general trends in global population, the inter-related nature of fertility, mortality, migration, and age structure, and how the demographic explanations of social phenomena are critical for understanding political, economic, and cultural changes.

Instructor(s): J. Trinitapoli Terms Offered: Winter

SOCI 50119. Politics of Media: From the Culture Industry to Google Brain. 100 Units.

Media theory frequently focuses on issues of technology as opposed to, or at the cost of, politics and culture. This course reorients attention to the intersection of media and cultural theory. We begin by reviewing key media theories from the Frankfurt School and the Birmingham School. Following a historical introduction, we explore the contemporary field of cultural media theory as it has unfolded in both the humanities and the social sciences. Students will think through how the sites of race, class, gender, and sexuality might frame and always already influence the ways that we think of media - from the broadcast media of Adorno and Horkheimer's culture industry that included radio, film, and television to contemporary pointcasting that is made up of digital and networked technologies. Alongside readings in an expanded media theory, we will engage artistic and cultural works, including literature, films, television serials, smart phone apps, video games, social media, and algorithms. We also explore methodological differences in media studies between the humanities and the social sciences.

Instructor(s): Patrick Jagoda & Kristen Schilt Terms Offered: Winter

Prerequisite(s): Before enrolling, MA students should email Professors Jagoda or Schilt on what you bring and hope to get out of the seminar

Equivalent Course(s): CMST 67827, CDIN 45327, GNSE 45327, ENGL 45327

SOCI 50122. Sem: Theories of Race & Racism. 100 Units.

This course is designed for to provide an overview of sociological perspectives on race and racism in the US. While we will read classic and contemporary theory and research on race in the United States, our focus will be on getting up to date on the contemporary state of the study of race and racism in sociology and closely related fields. Throughout, our goal will be to consider race both as a source of identity and social differentiation as well as a system of privilege, power and inequality affecting everyone in society, albeit in different ways. By taking up several important debates in the literature, the course will offer you a solid entry point into the study of race and racism in the US.

Instructor(s): J. Bell Terms Offered: Autumn

SOCI 50123. Sem: Elegant Models for Social Structure, Probability and Non-Probability Applications. 100 Units.

We investigate attempts to use relational data to build mathematically compelling models of social structure. Beginning with Harrison White's mathematization of Levi-Strauss, we investigate role algebras, before turning to probabilistic models. We examine attempts to specify a null distribution for network graphs, and then ways of linking observed graph statistics to models of structure. We then examine the idea of Markov graphs, relying on Besag, and then the application to networks. At this point, we shift to an exploration of the practical applications of different means of looking at probability models with structural and nonstructural covariates, relying on example data sets and simulation, to compare the capacity of pseudo-likelihood and MCMC maximum likelihood methods to produce correct answers to realistic questions, for conventional network data, for multinetwork data, and for temporal data. This last part will be a learning experience for all of us.

Instructor(s): J. Martin Terms Offered: Autumn

SOCI 60020. 1st-Year Proseminar Research Questions and Design. 000 Units.

A required, non-credit colloquium for first-year doctoral students in Sociology. The Colloquium addresses how to generate research questions and design projects through the current work of department faculty.

Instructor(s): G. Wodtke Terms Offered: Autumn

Prerequisite(s): 1st-year Sociology PhD students only



THE WILLIAM B. AND CATHERINE V. GRAHAM SCHOOL OF CONTINUING LIBERAL AND PROFESSIONAL STUDIES

Since the University's founding in 1890, the University of Chicago Graham School of Continuing Liberal and Professional Studies has served as the center of innovative lifelong learning at the University of Chicago. Connecting people around the world to the University of Chicago's distinct educational tradition, the Graham School offers a diverse collection of courses, certificates, and degree programs primarily at the University of Chicago's Gleacher Center in downtown Chicago. The Graham School is dedicated to curating and disseminating the University's rich content for a broader set of learners in ever more innovative ways, helping the University engage civically, globally, and with the latest innovations in teaching and learning.

For the most up-to-date information on our programs, please visit graham.uchicago.edu.

CONTACT US ([HTTPS://WWW.GOOGLE.COM/MAPS/PLACE/UNIVERSITY+OF+CHICAGO+GRAHAM+SCHOOL+OF+CONTINUING+LIBERAL+AND+PROFESSIONAL+STUDIES/@41.7857416,-87.5924926,17z/data=!3m1!4m5!3m4!1s0x880e29106c923f21:0x5177b1ef978c2091!8m2!3d41.7857416!4d-87.5903039](https://www.google.com/maps/place/University+of+Chicago+Graham+School+of+Continuing+Liberal+and+Professional+Studies/@41.7857416,-87.5924926,17z/data=!3m1!4m5!3m4!1s0x880e29106c923f21:0x5177b1ef978c2091!8m2!3d41.7857416!4d-87.5903039))

The University of Chicago Graham School (Press Building)
1427 E. 60th St., Second Floor
Chicago, IL 60637
(773) 702-1722

The University of Chicago Graham School (Bookstore)
970 E. 58th Street
Chicago, IL 60637
(773) 702-1722

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450 N. Cityfront Plaza Dr.
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CREDIT PROGRAMS

THE GRADUATE STUDENT-AT-LARGE AND RETURNING SCHOLAR PROGRAM ([HTTPS://GRAHAMSSCHOOL.UCHICAGO.EDU/ACADEMIC-PROGRAMS/GRADUATE-STUDENT](https://grahamschool.uchicago.edu/academic-programs/graduate-student))
([HTTPS://GRAHAMSSCHOOL.UCHICAGO.EDU/ACADEMIC-PROGRAMS/GRADUATE-STUDENT](https://grahamschool.uchicago.edu/academic-programs/graduate-student))

The Graduate Student-at-Large and Returning Scholar programs enable eligible students to take graduate and undergraduate courses throughout the University of Chicago without being enrolled in a degree program.

Graduate Students-at-Large take University of Chicago courses for grades and credit, allowing students to preview graduate school, define academic focus, and build a transferable record of study. Returning Scholars audit courses, earning neither grades nor credit. The Returning Scholar program is ideal for continued personal and professional development, and skill-based study, e.g. languages.

- Program type: graduate-level non-degree program
- Courses (<https://grahamschool.uchicago.edu/credit/graduate-student-at-large/registration>)
- Program structure, requirements, and application (<https://grahamschool.uchicago.edu/credit/graduate-student-at-large/index>)
- Location: Hyde Park Campus (<http://visit.uchicago.edu/transportation.shtml/#maps>)
- Courses taken: part-time, full-time / weekdays

GRADUATE STUDENT-AT-LARGE/RETURNING SCHOLAR BUSINESS PROGRAMS ([HTTPS://GRAHAMSSCHOOL.UCHICAGO.EDU/ACADEMIC-PROGRAMS/GRADUATE-STUDENT/GRADUATE-STUDENT-AT-LARGE-BUSINESS](https://grahamschool.uchicago.edu/academic-programs/graduate-student/graduate-student-at-large-business))

Graduate Students-at-Large Business enables eligible students to take courses in the Chicago Booth School of Business. Students take Booth courses for grades and credit. It is a unique opportunity to experience Chicago Booth faculty and students, build your network, create a transferable record of study, enhance your application to Booth or other MBA programs.

Students are encouraged to attend Chicago Booth admissions events and to contact Booth admissions staff for information about applying to the Evening, Weekend and Full-Time MBA programs.

- Program type: graduate-level non-degree programs
- Courses (<https://grahamschool.uchicago.edu/credit/graduate-student-at-large/business/registration>)
- Program structure, requirements, and application (<https://grahamschool.uchicago.edu/credit/graduate-student-at-large/business>)
- Location: Hyde Park Campus (<http://visit.uchicago.edu/page/transportation>) and Gleacher Center (<https://grahamschool.uchicago.edu/maps>)
- Courses taken: part-time, full-time / weekday evenings and Saturday mornings

MASTER OF LIBERAL ARTS

Taking seriously UChicago's commitment to University Extension, the Master of Liberal Arts (MLA) program is a part-time degree program making available the university's world-renowned resources to intellectually curious adults who otherwise cannot commit to full-time study. The MLA's flexible course schedule and downtown Chicago campus make it ideal for adults with busy professional lives. Through reading, writing, and lively classroom discussions, MLA students study the works of great thinkers—in the Humanities, Social Sciences, Biological Sciences, and Physical Sciences— and begin the process of becoming thought leaders in their own spheres. In small seminars, all led by award-winning tenured UChicago faculty, students wrestle with great ideas and sharpen their critical and synthetic thinking skills.

- Program type: masters degree program
- Courses (<https://grahamschool.uchicago.edu/credit/master-liberal-arts/current-courses>)
- Program structure, requirements, and application (<https://grahamschool.uchicago.edu/academic-programs/masters-degrees/master-liberal-arts/curriculum>)
- Location: Gleacher Center (<https://grahamschool.uchicago.edu/maps>)
- Structure: part-time, full-time / weekday evenings and Saturday mornings
- Time to completion: 1-5 years
- Minimum g.p.a. for satisfactory academic progress: 3.0

Admission criteria:

- One transcript from each prior academic institution
- Writing sample
- Candidate statement
- Resume
- Two letters of recommendation

Course requirements:

- 1 course in Humanities
- 1 course in the Social Sciences
- 1 course in the Biological Sciences
- 1 course in the Physical Sciences
- 1 non-Western elective
- 3 free electives
- Completion of the MLA thesis/special project

MASTER OF SCIENCE IN ANALYTICS

The Master of Science in Analytics will give students thorough knowledge of techniques in the field of analytics, and the ability to apply them to real-world business scenarios. Building from a core in applied statistics, students will be provided with advanced analytical training to develop their ability to draw insights from big data, including: data collection, preparation and integration; statistical methods and modeling; and other sophisticated techniques for analyzing complex data. The program is highly applied in nature, integrating business strategy, project-based learning, simulations, case studies, and specific electives addressing the analytical needs of various industry sectors. Through partnerships with key employers, the program also provides students with applied projects and data sets as well as access to career networks and employment pathways upon graduation.

- Program type: masters degree program
- Program structure, courses, requirements, and application (<https://grahamschool.uchicago.edu/credit/master-science-analytics/index>)
- Location: Gleacher Center (<https://grahamschool.uchicago.edu/maps>)
- Full-time/weekday and evening classes available
- Part-time / weekday evenings and Saturday mornings

- Time to completion: 1-4 years
- Only courses with a grade of B- will count toward degree requirements

Minimum g.p.a. for satisfactory academic progress: 2.7

Admission criteria:

- Online application
- One transcript from each prior academic institution
- Candidate statement
- Resume or CV

Applicants who attended an international university must also:

- Satisfy English language proficiency requirement
- Provide course by course evaluation

Program requirements:

- Bootcamp
- Foundation courses (2)
- Core courses (9)
- Electives (2)
- Capstone project (2)
- Noncredit workshops and Short courses

MScA bootcamp:

- Introduction to Statistical Concepts* (Stats Bootcamp)

MScA foundation courses:

- MSCA 32010: Linear Algebra & Matrix Analysis
- MSCA 37010: Programming for Analytics*

MScA core requirements:

- MSCA 31007: Statistical Analysis
- MSCA 31001: Research Design for Business Applications
- MSCA 31003: Leadership Skills: Teams, Strategies, and Communications
- MSCA 31006: Time Series Analysis and Forecasting
- MSCA 31008: Data Mining Principles
- MSCA 31009: Machine Learning and Predictive Analysis
- MSCA 31010: Linear and Nonlinear Models for Business Applications
- MSCA 31012: Data Engineering Platforms for Analytics
- MSCA 31013: Big Data Platforms

MScA Electives (select 2 from the following):

- MSCA 32001: Financial Analytics
- MSCA 32003: Marketing Analytics
- MSCA 32004: Credit and Insurance Risk Analytics
- MSCA 32005: Real Time Analytics
- MSCA 32007: Data Visualization Techniques
- MSCA 32009: Health Analytics
- MSCA 32011: Big Data and Text Analytics
- MSCA 32013: Optimization and Simulation Methods for Analytics
- MSCA 32014: Bayesian Methods
- MSCA 32015: Digital Marketing Analytics in Theory and Practice
- MSCA 32016: Advanced Python for Streaming Analytics
- MSCA 32017: Advanced Machine Learning
- MSCA 32018: Natural Language Processing and Cognitive Computing

Capstone project:

- MSCA 34000: Capstone Project Implementation
- MSCA 34001: Capstone Writing

Non-credit workshops & short courses*

- MSCA 37000: SAS Workshop
- MSCA 37001: Hadoop Workshop
- MSCA 37002: Linux Workshop
- MSCA 37003: Python Workshop
- MSCA 37006: R Workshop
- MSCA 37009: Short Python Course*
- MSCA 37011: Deep Learning & Image Recognition*
- MSCA 37012: Advanced Optimization*
- MSCA 37013: Ethics in Big Data Analytics*

MASTER OF SCIENCE IN BIOMEDICAL INFORMATICS

The Master of Science in Biomedical Informatics (<https://grahamschool.uchicago.edu/mscbmi>) (MScBMI) offers students the opportunity to become experts in this interdisciplinary field that includes technology, healthcare and informatics. More specifically, biomedical informatics studies and pursues the effective uses of biomedical data, information, and knowledge for scientific inquiry, problem solving and decision making, motivated by efforts to improve human health. Students will learn key skills necessary for understanding, designing, and managing health information technology systems and projects. The curriculum includes core content in clinical and research informatics; ethical, legal, and social issues; and leadership and project management techniques specific to biomedical informatics. Students can choose among a selection of electives in bioinformatics (life science and laboratory-relevant skills), big data management and analytics, and topics specific to clinical applications such as decision support systems, data integration, and application of meaningful use policies. In addition, the Capstone experience provides students with the opportunity to complete a project with an industry or University partner or in their workplace. The MScBMI is a program for working adults offered on weekday evenings and on Saturdays. Students attend either part-time or full-time and are taught by University of Chicago faculty and industry professionals.

- Program type: Masters degree program
- Courses (<https://grahamschool.uchicago.edu/academic-programs/masters-degrees/biomedical-informatics/curriculum>)
- Program structure, requirements, (<https://grahamschool.uchicago.edu/academic-programs/masters-degrees/biomedical-informatics/curriculum>) and application (<https://grahamschool.uchicago.edu/academic-programs/masters-degrees/biomedical-informatics/apply>)
- Location: Gleacher center/occasional courses in Hyde Park
- Part-time, full-time / weekday evenings and Saturday mornings
- Time to completion: 1 to 5 years
- Minimum g.p.a. for satisfactory academic progress: 2.7

Admission criteria:

- Online application
- One transcript from each prior academic institution
- Three letters of recommendation
- Candidate statement
- Resume or CV

Applicants who attended an international college or university must also:

- Satisfy English language proficiency requirement
- Provide course by course evaluation

The MScBMI requires five core courses, four electives and a capstone project, which includes taking three capstone courses, for degree completion.

Core courses:

- MSBI 31100: Introduction to Biomedical Informatics
- MSBI 31200: Leadership and Management for Informaticians
- MSBI 31300: Concepts in Computer Programming -OR- MSBI 31600: Advanced Concepts in Computer Programming

- MSBI 31400: Applied Research/Clinical Informatics
- MSBI 31500: Ethics and Policy Questions: Genomics, Health Care, and Big Data

Electives courses (select 4 from the following):

- MSBI 32100: Health Information Technology Integration, Interoperability Standards
- MSBI 32200: Big Data and Health Care
- MSBI 32300: Decision Support Systems and Health Care
- MSBI 32400: Introduction to Bioinformatics
- MSBI 32500: Advanced Bioinformatics: Genome Analysis
- MSBI 32600: Geographic Information Systems and Health Information
- MSBI 31600: Advanced Concepts in Computer Programming
- MSBI 32800: Healthcare Innovation and Entrepreneurship
- MSBI 32900: Evaluation Informatics Research Methods
- MSBI 33100: Population Health Informatics
- MSBI 33200: Machine Learning for Biomedical Informatics

Capstone courses:

- MSBI 39901: Capstone Proposal
- MSBI 39902: Capstone Implementation
- MSBI 39903: Capstone Writing and Presentation

MASTER OF SCIENCE IN THREAT AND RESPONSE MANAGEMENT

The Master of Science in Threat and Response Management is designed to prepare first responders, business professionals, policy makers, health professionals and those in related fields to respond to and recover from complex incidents, regardless of their size or cause. These incidents can include terrorist attacks; natural disasters; disease outbreaks; disruptions to business operations; chemical, radiological and nuclear threats; and more. As a student in the program, you will gain knowledge about these areas from instructors who have both tactical and academic experience, take part in learning experiences inside and outside the classroom, and network and share lessons with colleagues, policy makers and other professionals.

- Program type: masters degree program
- Courses (<https://grahamschool.uchicago.edu/academic-programs/masters-degrees/threat-response-management/curriculum>)
- Program structure, requirements, (<https://grahamschool.uchicago.edu/academic-programs/masters-degrees/threat-response-management/curriculum>) and application (<https://grahamschool.uchicago.edu/academic-programs/masters-degrees/threat-response-management/apply>)
- Location: Gleacher Center (<https://grahamschool.uchicago.edu/maps>)
- Part-time / executive format classes meet for three extended weekends each quarter: Autumn, Winter, Spring
- Time to completion: 2 years

Minimum g.p.a. for satisfactory academic progress: 3.0

Admission Criteria:

To be admitted to the program, applicants must hold a bachelor's degree. To be considered for admission, applicants must submit:

- A completed online application form
- A resume or curriculum vitae
- Transcripts from all universities attended
- A candidate statement
- Three letters of recommendation
- \$75 application fee.

Curriculum requirements:

Students must complete 1200 units, comprising 12 courses, which must include:

- 6 core courses
- 3 elective courses
- A capstone project and the corresponding capstone course sequence (3 courses)

Core courses:

- MSTR 31101: Foundations of Emergency Management and Homeland Security
- MSTR 31102: Statistics, Data Visualization and Research Methods
- MSTR 31103: Complex Adaptive Systems for Emergency Preparedness and Homeland Security
- MSTR 31104: Emergency Management, Policy Making, Law and Ethics
- MSTR 31105: Communications Strategies for Crisis Management
- MSTR 31106: Crisis Leadership and Management

Elective courses (select 3 choose from the following):

- MSTR 32211: Business Continuity, Contingency, Resilience and Sustainability
- MSTR 32203: Critical Infrastructure Protection and Key Resources
- MSTR 32206: Cyber Awareness
- MSTR 32204: Data Analytics for Emergency Response 1
- MSTR 32208: Data Analytics for Emergency Response 2
- MSTR 32209: Epidemiology and Infectious Diseases
- MSTR 32210: Financial and Resource Planning for Risk and Crisis Managers
- MSTR 32202: Modeling and Simulation for Policy Analysis and Design
- MSTR 32212: Psychological, Social and Behavioral Contexts of Emergency and Hazard Response
- MSTR 32201: Public Health Surveillance and Investigation
- MSTR 32205: Radiation, Chemical, and Biohazard Countermeasures - Essentials for Community Survival

Survival

- MSTR 32207: Technology Strategy and Information Systems

Capstone sequence:

- MSTR 33001: Capstone Project: Proposal
- MSTR 33002: Capstone Project: Research and Implementation
- MSTR 33003: Capstone Project: Writing and Presentation

MASTER OF ARTS IN TEACHING

THE UNIVERSITY OF CHICAGO'S URBAN TEACHER EDUCATION PROGRAM (UCHICAGO UTEP) IS A FIVE-YEAR EXPERIENCE THAT INCLUDES A TWO-YEAR MASTER'S DEGREE PROGRAM AND THREE YEARS OF POST-GRADUATION SUPPORTS. THROUGH UCHICAGO UTEP, CANDIDATES RECEIVE A MASTER OF ARTS IN TEACHING (M.A.T.) DEGREE AND ILLINOIS TEACHING CERTIFICATION. THERE ARE TWO CERTIFICATION PATHWAYS, ELEMENTARY (GRADES 1-6) AND MIDDLE GRADES (5-8).

THE TWO PATHWAYS MEET ILLINOIS'S NEW LICENSURE STRUCTURE AND STANDARDS FOR TEACHING: (1) ALL CORE-SUBJECTS IN SELF-CONTAINED ELEMENTARY GRADES 1-6; AND (2) SPECIFIC CORE SUBJECTS IN DEPARTMENTALIZED MIDDLE GRADES 5-8.

- Program type: masters degree program
- Program structure, requirements, (<https://utep.uchicago.edu/page/program-overview>) and application (<https://utep.uchicago.edu/page/apply>)
- Location: Hyde Park Campus (<http://utep.uchicago.edu/page/visit>) and Chicago Public Schools
- Full-time during the first and second years
- Time to completion: 2 years

Admission Criteria:

- Online application (including three letters of recommendation)
- Official transcripts
- Submit a Composite ACT Plus Writing score of 22 or higher with a minimum score of 19 on the Combined English/Writing **OR** a Composite SAT score of 1030 or higher on Critical Reading plus Mathematics, with a minimum score of 450 on Writing if taken before March 5, 2016, **OR** a Composite SAT score of 1110 (Evidence-based Reading and Writing plus Mathematics) or higher, and a minimum score of 26 on the Writing and Language Test for the Redesigned SAT taken on or after March 5, 2016, in lieu of the Illinois Certification Testing System (<http://www.icts.nesinc.com>) (ICTS/Illinois Licensure Testing System or ILTS) Basic Skills or Test of Academic Proficiency (TAP) exams. If the SAT score is submitted, it must include the writing subtest.
- The GRE exam is NOT required for admission.

- If the application meets the criteria, students will be invited to an in-person interview during the winter quarter of their third year in the College.

Minimum g.p.a. for satisfactory academic progress: 3.0

Ideal candidate are those whose college transcript(s) reflects that they have met the Illinois State General Education standards with excellence. All requirements listed below must be met prior to UChicago UTEP admission:

Elementary (Grades 1-6)

- 2 Science Courses (in any of the following areas: life, physical/chemistry, earth science, space science)
- 2 Social Science Courses (in any of the following areas: history, geography, civics, & government, economics)
- 1 Mathematics Course (in any of the following areas: college-level math, number sense, geometry, probability & statistics, calculus)
- 1 Fine Arts Course (in any of the following areas: music, art, dance, etc.)

Middle Grades (Grades 5-8)

Candidates can be endorsed in any or all of the following subject areas. (Please note that some content courses taken as a UTEP student can help fulfill endorsement requirements).

- Science (4 courses in any of the following areas: life, physical/chemistry, earth science, space science)
- Social Science (5 courses in any of the following areas: history, geography, civics & government, economics)
- Mathematics (4 courses in any of the following areas: college-level math, number sense, geometry, probability & statistics, calculus)
- English/Language Arts (4 courses in any of the following areas: reading, writing, literature, communication)
- Bilingual/ESL (6 required courses and must pass the Target Language Proficiency Test)
- ESL (6 required courses and must pass the Target Language Proficiency Test)

Foundations curriculum (Year One):

Autumn

- UTEP 35505: Foundations of Education I: The Social Aspects and History of Chicago and Chicago Schools
- UTEP 35510: Mathematics Content For Teaching I
- UTEP 51000: Reading Content for Teaching I
- UTEP 43200: Mathematics Methods I

Winter

- UTEP 35506: Foundations of Education II: Philosophy of Education
- UTEP 52000: Reading Content for Teaching II
- UTEP 35511: Mathematics Content for Teaching II
- UTEP 43400: Mathematics Methods II

Spring

- UTEP 35502: Foundations of Education III: Human Development & Learning
- UTEP 55000: Reading & Writing Methods
- UTEP 35513: Science Content for Teaching I
- UTEP 35512: Mathematics Content for Teaching III
- UTEP 35522: Foundations Practicum III

Residency curriculum (Year Two):

Summer

- UTEP 33001: Differentiation
- UTEP 35523: Social Studies Methods
- UTEP 35514: Science Content for Teaching II
- UTEP 35525: Science Methods

Autumn

- UTEP 47000: Practicum I: Instruction & edTPA
- UTEP 48000: Teaching & Learning I: Building and Managing a Classroom Community
- UTEP 37100: Foundations of Bilingual and ESL Education

Winter

- UTEP 47100: Practicum II: Using Formative Data to Improve Teaching Practice
- UTEP 48100: Teaching & Learning II: Reading and Writing Across the Content Areas
- UTEP 35543: Social Studies Content for Teaching

Spring

- UTEP 47200: Practicum III: Unit Assessment
- UTEP 48200: Teaching & Learning III: Integrated Classroom management
- UTEP 37200: Methods and Materials for Teaching ESL

NONCREDIT PROGRAMS

BASIC PROGRAM OF LIBERAL EDUCATION FOR ADULTS

The Basic Program of Liberal Education for Adults (<https://grahamschool.uchicago.edu/academic-programs/liberal-arts/basic-program>) offers a rigorous, noncredit liberal arts curriculum that draws on the strong Socratic tradition at the University of Chicago and covers the foundations of modern Western political and social thought. Read, explore, and engage with these important texts in a dedicated community of learners, led by experienced instructors. There are no tests, papers, or grades; you will instead discover, disagree, and discuss these works just as students in the College at the University of Chicago do, with the benefit of additional years of insight and experience to add to the conversation.

Participants earn a certificate upon completion of the entire four-year curriculum (12 quarters), as well as some of the privileges of University of Chicago alumni.

- Program type: certificate
- Courses ([https://grahamschool.uchicago.edu/courses?sku=&field_quarter_value=All&field_year_value\[value\]\[year\]=&field_program_tags_tid=7&field_course_tags_tid=All&field_professional_development_t_tid=All&field_person](https://grahamschool.uchicago.edu/courses?sku=&field_quarter_value=All&field_year_value[value][year]=&field_program_tags_tid=7&field_course_tags_tid=All&field_professional_development_t_tid=All&field_person))
- Program structure, requirements, (<https://grahamschool.uchicago.edu/academic-programs/liberal-arts/basic-program/curriculum>) and application (<https://grahamschool.uchicago.edu/academic-programs/liberal-arts/basic-program/register>)
- Location: Gleacher Center (<https://grahamschool.uchicago.edu/maps>) and Hyde Park (<http://visit.uchicago.edu/transportation.shtml/#maps>)
- Part-time / weekday mornings and evenings at Gleacher; Saturday mornings in Hyde Park
- Time to completion: 4 years

Courses:

- Basic Program Year 1: Autumn, Winter, Spring quarters
- Basic Program Year 2: Autumn, Winter, Spring quarters
- Basic Program Year 3: Autumn, Winter, Spring quarters
- Basic Program Year 4: Autumn, Winter, Spring quarters

<https://grahamschool.uchicago.edu/academic-programs/liberal-arts/basic-program>

BUSINESS ANALYTICS

THE ONLINE BUSINESS ANALYTICS CERTIFICATE IS DESIGNED TO IMPROVE EVIDENCE-BASED DECISION-MAKING SKILLS OF BUSINESS PROFESSIONALS. THE CERTIFICATE ALSO EQUIPS THESE PROFESSIONALS WITH THE ABILITY TO MANAGE ANALYTICS TEAMS AND ACT AS TRANSLATORS BETWEEN BUSINESS AND TECHNICAL PEOPLE.

Admission Criteria:

- Completed online application
- \$40 application fee (non-refundable)
- Personal Statement
- Current resume or CV

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D, D-, or F in a course will not pass.

Curriculum requirements:

- 4 Required Courses

NOTE: The Business Analytics certificate is currently undergoing curricular revisions and requirements may change before or during the 2018/2019 academic year. Updated curricular information can always be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/business-analytics/curriculum>

Courses required for completion of the certificate: (requirements for 2018-19 admits):

- BUAN18100: Exploring Data to Evaluate Business Practices: Databases and Reporting
- BUAN18200: Exploring Data to Evaluate Business Practices: Exploratory Data Analysis and Visualization
- BUAN19100: Data Analysis for Evidence Based Decision Making
- BUAN19200: Data Mining for Evidence Based Decision Making

CLINICAL TRIALS MANAGEMENT AND REGULATORY COMPLIANCE

This comprehensive certificate program provides rigorous clinical research training across the entire clinical trials process, from the perspective of the clinical study site as well as that of the sponsor or monitor. The broad curriculum covers ICH good clinical practice guidelines, regulatory requirements and compliance, detecting fraud and misconduct, and statistics for clinical research. Students will build the skills and knowledge to initiate clinical research studies, apply monitoring methods, and write documents and reports, while understanding and abiding by FDA regulations and International Conference on Harmonization (ICH) guidelines.

Admission criteria:

- Completed online application
- \$40 application fee (non-refundable)
- Personal Statement
- Current resume or CV

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D, D-, or F in a course will not pass.

Curriculum requirements:

- 6 courses in total: 5 required courses and 1 elective

Updated curricular information can be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/clinical-trials/curriculum>

Courses required for completion of the degree: (requirements for 2018-19 admits)

Required courses (5):

- CLIN11100: Good Clinical Practices
- CLIN11200: The Drug Development Process
- CLIN11300: Statistical Concepts for Clinical Research
- CLIN11400: Fundamentals of Site Management
- CLIN11500: Fundamentals of Clinical Monitoring

Elective courses (select 1):

- CLIN10100: Introduction to Clinical Research: Conception to Protocol Development
- CLIN21100: Fraud and Misconduct
- CLIN21200: Project Management and Leadership in the Healthcare Industry

DIGITAL MARKETING AND INTEGRATED COMMUNICATIONS

The Digital Marketing and Integrated Communications certificate is designed for professionals who want to launch their marketing career or refresh it with new skills. The courses in the certificate provide essential training within a range of marketing disciplines including digital marketing, social media, advertising, marketing planning, brand development, market research, and public relations. Professionals in the program engage in thinking and practices rooted in marketing results.

Criteria for admission into program:

- Completed online application
- \$40 application fee (non-refundable)

- Personal Statement
- Current resume or CV

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D-, or F in a course will not pass.

Curriculum requirements:

Updated curricular information can be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/digital-marketing/curriculum>

Courses required for completion of the degree: (requirements for 2018-19 admits)

Required Courses (4):

- IMKT11100: Successful Marketing: Basics to New Directions
- IMKT11200: Branding for Competitive Advantage
- IMKT11300: Managing Integrated Marketing Communications
- IMKT11400: Marketing Experience, Analytics, and Optimization

Elective courses (2):

- IMKT21100: Digital Shopper Marketing
- IMKT21200: Consumer Research Design and Analysis
- IMKT21400: Search Engine Marketing
- IMKT21500: Web Analytics for Marketing Professionals
- IMKT21600: Public Relations
- IMKT21700: Designing a Social Media Strategy
- IMKT21800: Consumer Behavior
- IMKT21900: Content Marketing

EDITING

The Editing certificate program offers a focused sequence of courses designed to prepare individuals to enter the publishing industry and to help current editing professionals build skills and knowledge for career advancement. In addition to core courses focused on manuscript editing, students have the opportunity to learn about the emerging technologies and marketing tools that dramatically affect publishing professionals today.

Criteria for admission into program:

- Completed online application
- \$40 application fee (non-refundable)
- Personal Statement
- Current resume or CV

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D-, or F in a course will not pass.

Curriculum requirements:

5 courses in total: 4 required courses and 1 elective

Updated curricular information can be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/editing/curriculum>

Courses required for completion of the degree: (requirements for 2018-19 admits)

Required courses (4):

- EDIT11100: Basic Manuscript Editing
- EDIT11200: Intermediate Manuscript Editing
- EDIT11300: Advanced Manuscript Editing
- EDIT11400: Editing Electronically

Elective courses (1):

- EDIT11100: Basic Manuscript Editing
- EDIT11200: Intermediate Manuscript Editing

- EDIT11300: Advanced Manuscript Editing
- EDIT11400: Editing Electronically

FINANCIAL DECISION MAKING

The Financial Decision Making Certificate is designed for professionals who want to launch a career in finance, refocus on business management basics, or prepare for a top-ranked MBA program. The program offers foundational skill development in business accounting and finance, and the rigorous coursework builds core knowledge and understanding to enhance job effectiveness and for career advancement.

Criteria for admission into program:

- Completed online application
- \$40 application fee (non-refundable)
- Personal Statement
- Current resume or CV

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D, D-, or F in a course will not pass.

Curriculum requirements:

5 courses in total: 3 required courses and 2 electives

Updated curricular information can be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/financial-decision-making/curriculum>

Courses required for completion of the degree: (requirements for 2018-19 admits)

Required courses (3):

- FIND11100: Financial Accounting
- FIND11200: Corporate Finance
- FIND21100: Principles of Economics

Electives (select 2):

- FIND21200: Managerial Analysis: Tools for Better Decisions
- FIND21300: Securities and Portfolios
- FIND21500: Behavioral Economics

MEDICAL WRITING AND EDITING

The Medical Writing and Editing certificate program is designed to teach students the fundamentals and best practices of crisp, clear, and sophisticated medical writing and editing. The comprehensive curriculum ensures students are trained in the industry standard *AMA Manual of Style*. Coursework includes accessing medical research, using appropriate terminology, and designing and presenting data visualizations.

Application criteria:

- Completed online application
- \$40 application fee (non-refundable)
- Personal Statement
- Current resume or CV

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D, D-, or F in a course will not pass.

Curriculum requirements:

6 courses in total: 5 required courses and 1 elective

Updated curricular information can be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/medical-writing-and-editing/curriculum>

Courses required for completion of the degree: (requirements for 2018-19 admits)

Required courses (5):

- MEWE30100: Medical Copyediting
- MEWE30200: Fundamentals of Substantive Editing and Publication Ethics

- MEWE30300: Fundamentals of Writing and Research
- MEWE30400: Preparing Tables, Graphs, and Figures
- MEWE30500: Understanding and Reporting Biostatistics

Electives (select 1):

- MEWE40100: MEDLINE and Beyond: Medical Research Databases
- MEWE40300: Freelancing for Medical Writers and Editors
- MEWE40400: Regulatory Writing

ESSENTIALS OF PROJECT MANAGEMENT

This program covers the essential managerial and technical aspects of modern project management. Additionally, it gives professionals direct experience using appropriate tools and techniques to successfully execute a project. By the end of this program, students will have a mastery of the basic theory and practice of project management. Included will be exposure to many of the "soft skills" inherent in successful project execution, such as communication, interpersonal relationships, and problem-solving.

Admission criteria:

The Essentials of Project Management program does not require admission. Interested students may directly register for classes.

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D, D-, or F in a course will not pass.

Curriculum requirements:

1 or 2 courses in total: either 1 online course or two in-person courses

Updated curricular information can be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/project-management/essentials/curriculum>

Courses required for completion of the degree: (requirements for 2018-19 admits)

Required courses:

- PMGT17101: Essentials of Project Management (online)

OR:

- PMGT11101: Idea to Completion (in-person)
- PMGT11102: Making Projects Work (in-person)

PROJECT MANAGEMENT STRATEGY

The Project Management Strategy certificate is designed for professionals who want to develop their understanding of the strategic, leadership, human resources, and operational aspects of project management. Completion of the Project Management Strategy certificate will provide the project manager or team member with the knowledge and insight to successfully meet and embrace the challenges inherent in successful project completion. This is an intermediate program for people who have completed the Essentials of Project Management certificate or who have real-time experience working on or leading a project team.

Admission criteria:

- Completed online application
- \$40 application fee (non-refundable)
- Personal Statement
- Current resume or CV

Non-credit certificate programs do not provide a GPA. Certificate courses are graded on an A-F and P/F scale. Students must earn at minimum a passing grade (P) or (C-) to pass a course. Students who earn a D+, D, D-, or F in a course will not pass.

Curriculum requirements:

5 courses in total: 3 required courses and 2 electives

NOTE: The Project Management Strategy certificate is currently undergoing curricular revisions and requirements may change before or during the 2018/2019 academic year.

Updated curricular information can always be found here: <https://grahamschool.uchicago.edu/academic-programs/professional-development/project-management/strategy/curriculum>

NOTE: Students with project management experience can bypass "Idea to Completion" and then only need to complete 4 courses in total.

Courses required for completion of the degree: (requirements for 2018-19 admits)

REQUIRED:

- PMGT17101: Essentials of Project Management (online)
- PMGT11101: Idea to Completion (in-person)
- PMGT11102: Making Projects Work (in-person)

AND choice of:

- PMGT21102: Assessment and Recovery of Troubled Projects OR
- PMGT21105: Managing Project Resources: Budgets, Estimates, and Performance

Elective courses:

- PMGT11201: Introduction to Agile for Project Managers
- PMGT11202: Managing the Radical Shift to Agile
- PMGT21102: Assessment and Recovery of Troubled Projects
- PMGT21105: Managing Project Resources: Budgets, Estimates, and Performance
- PMGT21106: Negotiation and Dispute Resolution for Project Managers
- PMGT31106: Design Thinking for Project Managers

ADVANCED PROJECT MANAGEMENT

The purpose of the Advanced Project Management certificate program is to provide the experienced project practitioner with a forum for examining leading-edge concepts, best practices, and approaches to issues that will directly affect job performance and organizational success. Our Advanced Project Management courses are designed for participants with several years of project management experience. This certificate offers an opportunity for very experienced project managers to interact with their peers to learn and work with professionals who have similar levels of responsibility.

This program lets you take advantage of your experience while earning continuing education credits (PDUs) in a meaningful way. Benefits include:

- Interaction with peers in advanced courses – sharing similar levels of experiences.
- In-depth study of topics directly pertinent to organizational success.
- All participants earn PDUs from the Project Management Institute.
- Meet continuing educational requirements with courses that will hold your interest while expanding your knowledge base.
- Freedom to choose the courses that are the most important to you professionally.
- Students must have 3-5 years of progressive project management experience, and may take courses without enrolling in the program.

VISUAL ARTS

The Visual Arts Certificate Program (<https://grahamschool.uchicago.edu/academic-programs/professional-development/visual-arts>) was created to help emerging and mid-career artists access practical information and resources that allow them to enhance the success of their current artists practice. A partnership between the Hyde Park Art Center and the University of Chicago Graham School, the program brings together studio learning and professional development across five courses. We aim to foster a sense of artistic community, and to offer artists a positive space to engage in critical dialogue with others working in the arts.

- Program type: certificate
- Courses and course schedules ([https://grahamschool.uchicago.edu/courses?sku=&field_quarter_value=All&field_year_value\[value\]\[year\]=&field_program_tags_tid=41&field_course_tags_tid=All&field_professional_development_t_tid=All&field_person](https://grahamschool.uchicago.edu/courses?sku=&field_quarter_value=All&field_year_value[value][year]=&field_program_tags_tid=41&field_course_tags_tid=All&field_professional_development_t_tid=All&field_person))
- Program structure, location of courses, requirements, (<https://grahamschool.uchicago.edu/academic-programs/professional-development/visual-arts/curriculum>) and application (<https://grahamschool.uchicago.edu/academic-programs/professional-development/visual-arts/apply>)
- Part-time
- Time to completion: up to 3 years

ADDITIONAL GRAHAM SCHOOL NONCREDIT PROGRAMS

Personal Enrichment

Civic Knowledge (https://www.uchicago.edu/research/center/civic_knowledge_project)

Know Your Chicago (<http://civicengagement.uchicago.edu/programs-partnerships-volunteering/detail/know-your-chicago>)

Lecture Series (<https://grahamschool.uchicago.edu/noncredit/personal-enrichment/lecture-series/index>)

Open Enrollment Courses ([https://grahamschool.uchicago.edu/courses?](https://grahamschool.uchicago.edu/courses?sku=&field_quarter_value=All&field_program_tags_tid=All&field_course_tags_tid=81&field_professional_de)

[Travel Study \(https://grahamschool.uchicago.edu/noncredit/personal-enrichment/travel-study/index\)](https://grahamschool.uchicago.edu/noncredit/personal-enrichment/travel-study/index)

Professional Development

Corporate and Custom Training (<https://grahamschool.uchicago.edu/noncredit/professional-development/corporate-custom-training/index>)

National Museum Publishing Seminar (<https://grahamschool.uchicago.edu/noncredit/professional-development/national-museum-publishing/index>)

SUMMER

The University of Chicago offers numerous summer learning opportunities for students through the Graham School.

The School offers noncredit courses, lectures, and events downtown. No matter what your interests are or where you wish your goals to take you, we are certain you can find myriad possibilities to enrich your summer at the Graham School.

BASIC PROGRAM SUMMER COURSES

LIBERAL ARTS SUMMER COURSES

PROFESSIONAL DEVELOPMENT SUMMER COURSES

WRITER'S STUDIO SUMMER COURSES

ONLINE

The Graham School currently offers two of its programs in full in an online format: the Clinical Trials and Regulatory Compliance Certificate Program, and the Medical Writing and Editing Certificate Program.

We are continually working to expand our online learning opportunities. If you would like to speak with a staff member about specialized group online training, please contact us at grahamschool@uchicago.edu.



THE UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS

Founded in 1898, the University of Chicago Booth School of Business (<http://www.chicagobooth.edu>) is the second-oldest business school in the United States and one of the most distinguished. The school's programs consistently rank highly in surveys, and the school has a strong reputation for innovation in both research and teaching. For example, Chicago Booth faculty (<http://www.chicagobooth.edu/faculty/directory>) have made significant contributions in the areas of finance, the economics of regulation, and decision making. For more than a century, Chicago Booth has been known as an innovator in business education and a creator of ideas.

In autumn 2004 Chicago Booth opened its Hyde Park Center. Named the Charles M. Harper Center in 2007, this facility brought together all of Chicago Booth's previously existing Hyde Park campus buildings into one 415,000-square-foot space. Located at 5807 South Woodlawn Avenue, Harper Center was designed around how teachers want to teach and how students want to learn. With the opening of Harper Center, Chicago Booth could lay claim to the best business school facilities in the world. Chicago Booth is the only business school with permanent campuses on three continents. Built in 1994, Gleacher Center, off Michigan Avenue in downtown Chicago, provides state-of-the-art executive education and conference facilities and is home to the school's part-time MBA programs. In London, Woolgate Exchange is the home of the school's Executive MBA Program Europe. In Hong Kong, the Cyberport, located in a bustling metropolis with excellent communications and transportation, is the location for the Executive MBA Program Asia.

The University of Chicago Booth School of Business offers six programs of study leading to a degree: four leading to an MBA (the Full-Time MBA Program, the Evening MBA Program, the Weekend MBA Program, and the Executive MBA Program), one leading to an IMBA (the International MBA Program), and the PhD Program.

THE FULL-TIME MBA PROGRAM

The MBA curriculum is designed to prepare students for significant careers in management. It encompasses both the basic disciplines that underlie management and the operational areas specific to business. The courses are designed to provide understanding of the components of managerial decision making while furnishing perspective on the role of business as an economic, political, and social institution.

The MBA experience is not restricted to the classroom at Chicago Booth. Although Booth is not a case study institution, a substantial percentage of the total course work, depending on the student's choice of classes, will consist of various kinds of cases and applied analyses as well as several opportunities to participate in experiential courses which provide hands-on learning with actual business challenges. Because of the school's location in one of the world's major commercial centers, students meet business, economic, labor, and political leaders at the numerous lecture and seminar series held on campus and through alumni and friends in Chicago's business community.

Freedom of choice is a way of life at Chicago Booth. Professors are free to use the teaching method they believe to be most effective; students are free to choose the courses (<https://intranet.chicagobooth.edu/pub/coursesearch/coursesearch>) and professors (<http://www.chicagobooth.edu/faculty/directory>) from whom they can best learn. In addition, students are encouraged to make use of the resources of the entire university and take advantage of the critical and intellectual diversity that thrives on the campus. The Chicago Booth MBA is characterized by a willingness to experiment, to judge people by their performances rather than their origins, to judge ideas by their consequences rather than their antecedents.

Chicago Booth's Leadership Effectiveness and Development Program (<http://www.chicagobooth.edu/programs/full-time/academics/lead>) (LEAD) was founded in 1989 as one of the first experiential leadership programs at a major business schools. Held during autumn quarter and lead by second-year student facilitators, the program provides a common educational experience within a curriculum that has always offered exceptional flexibility. This required, noncredit course for full-time program students is designed to enhance self-awareness and interpersonal effectiveness through a varied and highly interactive curriculum. Through these experiences, students will enhance their mastery of three of the most important aspects of leadership: building relationships, inspiring others, and influencing outcomes. Other class activities in autumn quarter revolve around the 10 student cohorts assigned during LEAD that help build a sense of community, instill the value of teamwork, and acquaint students with the school.

The school admits persons with a wide variety of backgrounds. The normal prerequisite is a four-year bachelor's degree, or equivalent, from an accredited institution. Students who do not have a bachelor's degree may apply to the school for special eligibility. Those interested in consideration for special eligibility must receive approval before an application is submitted and should, therefore, write to the director of admissions for further information.

Requests for an application and other inquiries should be addressed to the Office of Admissions and Financial Aid, The University of Chicago Booth School of Business, 5807 South Woodlawn Avenue, Chicago,

Illinois 60637, phone: 773.702.7369, email: admissions@ChicagoBooth.edu. Admissions information is also available online (<http://www.chicagobooth.edu/programs/full-time/admissions>).

THE INTERNATIONAL MBA PROGRAM

The University of Chicago Booth School of Business also offers an international MBA (IMBA) degree. This program provides students with in-depth training in business fundamentals as well as the skills and training required to be competitive at the global level.

The core of the IMBA program draws on the traditional strengths of the school's MBA program. Students enjoy flexibility in course selection, few absolute course requirements, and access to the best business faculty in the world. They grasp the fundamentals of business and develop the skills necessary to apply those fundamentals in real world situations.

In addition, IMBA students develop a broad set of intercultural skills necessary for successful careers in international business. They master a foreign language, spend at least one term of study abroad, participate in specialized multicultural programming, and potentially work on real company projects as part of specially tailored project courses while studying overseas. International education is delivered by Booth faculty, world-renowned scholars from other units of the university (such as East Asian Studies or International Relations), and by faculty from partner universities around the globe.

Though the IMBA contains additional requirements, the IMBA program is completed in the same time frame as the traditional MBA program. As a result, most students should expect to complete the program in the twenty-one months usually required for the MBA program. Since expertise in international business is implicit in the IMBA degree, recognition of an international business concentration would be redundant; therefore, no IMBA student may declare an international business concentration.

Acceptance into the IMBA program is based first on gaining admission to the Full-Time MBA Program. During the first quarter of enrollment students may declare their intention to follow the IMBA curriculum. To obtain an MBA application, contact the Office of Admissions and Financial Aid, The University of Chicago Booth School of Business, 5807 South Woodlawn Avenue, Chicago, Illinois 60637, or phone 773.702.7369. Admissions information is also available online (<http://www.chicagobooth.edu/programs/full-time/admissions>).

JOINT DEGREE PROGRAMS

Chicago Booth participates in joint degree programs with several other schools and divisions of the University: the Law School; School of Social Service Administration; Pritzker School of Medicine; Irving B. Harris Graduate School of Public Policy; Department of Computer Science; East European/Russian, Middle Eastern, South Asian, and Latin American area study centers; and Committee on International Relations. These programs allow the student to pursue combined programs of study. For more information on the joint MBA/AM programs in international relations or Middle Eastern, East Asian, East European/Russian, Latin American, and South Asian studies, contact the Committee on Joint MBA/AM Programs, The University of Chicago Booth School of Business, 5807 South Woodlawn Avenue, Chicago, Illinois 60637. For all other joint programs, write to the director of admissions of Chicago Booth and the dean of students of the appropriate school.

THE PART-TIME MBA PROGRAMS

THE EVENING MBA PROGRAM

The University of Chicago pioneered the concept of part-time MBA study for men and women employed in management and the professions. Even though the school's Evening MBA Program is more than fifty years old, it is still unique in the field of management education because it is identical in every important way to the full-time program. Entrance requirements and degree requirements are the same for both programs, and courses are taught by the same faculty.

While the academic aspects of the full-time and part-time programs are the same, their logistics are quite different. Evening MBA classes meet on weeknights in the school's convenient downtown location at Gleacher Center, 450 North Cityfront Plaza Drive, along the north bank of the Chicago River between Michigan Avenue and Columbus Drive. Approximately 1,600 students from a diverse background of job functions and industries are currently engaged in part-time study in the program. Many of the students come from Chicago area banks and financial institutions; heavy industry, consulting, advertising, and the entrepreneurial and nonprofit sectors also are well represented. Job titles of current students range from new management trainees to senior executive officers.

Evening MBA students are required to complete Leadership Exploration and Development. This program is initiated during Launch, an orientation program, and continues throughout the program of study.

Classes are available in all four academic quarters. Students completing two courses per quarter will fulfill the program requirements in two-and-one-half years, although the average graduation time is approximately three years. All MBA candidates are allowed a maximum of five years to complete the degree program.

Admissions information is available online (<http://www.chicagobooth.edu/programs/evening/admissions>).

THE WEEKEND MBA PROGRAM

Many managers often find it convenient to take their classes on Saturdays due to travel schedules or the location of their offices far from Chicago. To meet the needs of individuals and their companies, Booth provides an additional avenue of continuing education in its Weekend MBA Program. Students take courses on Saturday mornings and Saturday afternoons at the convenient downtown Gleacher Center and thereby can complete the MBA program in as little as two-and-one-half years. Some students fly in from across the country and around the globe, with over 70 percent of weekend students living outside of Illinois. The Weekend MBA Program follows in the Chicago Booth tradition of offering all MBA candidates the same academic program, same faculty, and same degree as the full-time and evening MBA programs.

Weekend MBA students are required to complete Leadership Exploration and Development. This program is initiated during Launch, an orientation program, and continues throughout the program of study.

Classes are available in all four academic quarters. Students completing two courses per quarter will fulfill the program requirements in two-and-one-half years, although the average graduation time is approximately three years. All MBA candidates are allowed a maximum of five years to complete the degree program.

Admissions information is available online (<http://www.chicagobooth.edu/programs/weekend/admissions>).

THE EXECUTIVE MBA PROGRAM

The Executive MBA Program is a part-time MBA program designed to prepare experienced executives to be more effective general managers.

Each year, approximately 90 students are admitted to each location of study in this intensive, twenty-month program. The Executive MBA Program curriculum emphasizes the value of learning in groups and sharing experiences. Students will participate primarily at one of our three international locations: downtown Chicago (Gleacher Center); London (Woolgate Exchange); or Hong Kong (the The Hong Kong Jockey Club University of Chicago Academic Complex); students will have an opportunity to study at each campus over their program of study in international cohorts. These international cohorts are composed of an equal mix of students from all three campuses and convene for week-long sessions in Chicago, London and Hong Kong.

Although the format is different, the Executive MBA Program, like all of Chicago Booth's MBA programs, is based on the Chicago approach to business education. This approach emphasizes an understanding of the fundamental forces in the economy, in organizations, and in individuals, and also in applying this understanding to analyze and produce creative, imaginative solutions to real world problems.

Executive MBA students are required to complete Leadership Exploration and Development. This program is initiated during Launch, an orientation program, and continues throughout the program of study.

Courses in the Executive MBA program are taught by full-time members of the faculty. Most courses are cohorted but students are offered elective courses in finance, marketing, strategy, and entrepreneurship for students interested in deepening their knowledge in areas of particular relevance to their careers.

For further information about the program, contact:

Admissions Office of the Executive MBA Program North America
The University of Chicago Booth School of Business
450 North Cityfront Plaza Drive
Chicago, Illinois 60611
phone: 312.464.8750
email: xp@ChicagoBooth.edu

Admissions Office of the Executive MBA Program Europe
The University of Chicago Booth School of Business
Woolgate Exchange
25 Basinghall Street
London EC2V 5HA United Kingdom
phone: 44.(0)20.7643.2200
email: europe.inquiries@ChicagoBooth.edu

Admissions Office of the Executive MBA Program Asia
The University of Chicago Booth School of Business
The Hong Kong Jockey Club University of Chicago Academic Complex |
The University of Chicago Francis and Rose Yuen Campus in Hong Kong
168 Victoria Road,
Mount Davis, Hong Kong
Phone: +852.2533.9500
email: asia.inquiries@ChicagoBooth.edu

THE PHD PROGRAM

The PhD Program is an integral part of Chicago Booth. The school began the first PhD program in business in the United States in 1920 and awarded its first PhD degree in 1922. Since then, more than eight hundred degrees have been granted.

The program leading to the degree of doctor of philosophy is designed for students of outstanding ability who desire advanced studies in preparation for careers in university teaching and research. The number of students admitted to the program each year is small and, within the framework of the general requirements described below, programs of study are designed to fit individual interests. Students with a variety of backgrounds are admitted to the program; undergraduates with strong academic backgrounds (e.g., economics, mathematics, psychology, sociology) and strong research interests are encouraged to apply.

Information about the program and application materials are available online (<http://www.chicagobooth.edu/programs/phd>).

BOOTH BOOK FEE

Cases, articles, and simulations are delivered electronically through Canvas, faculty course webpages, or hard-copy in class. Students enrolled in a Booth course will incur a \$25 per course fee, assessed via their tuition bill. Students may be required to purchase a text book in addition to this expense.



THE DIVINITY SCHOOL

PROGRAMS OF STUDY

The Divinity School offers programs of study leading to the degrees of Master of Arts (M.A.), Master of Arts in Religious Studies (A.M.R.S.), Doctor of Philosophy (Ph.D.), and Master of Divinity (M.Div.).

The M.A. program is a two-year foundational program in the academic study of religion for students who wish to acquire the requisite skills to develop a research agenda for doctoral study, or to establish a basis for a career in such related fields as education, publishing, government service, nonprofit work, etc.

The M.A. in Religious Studies (A.M.R.S.) is a concentrated program in the study of religion for those in other professions (e.g., law, medicine, business, journalism, the arts) or those who seek greater knowledge of and sophistication in the study of religion. The degree may be pursued in one year, or over a period of three years, taking one or two courses per quarter, allowing students to balance study with existing professional commitments.

The Ph.D. program is a rigorous program of advanced study and research that prepares students for a lifetime of field-defining scholarship, intellectual leadership, and teaching in the academic study of religion.

The M.Div. program is an intensive cohort-based three-year course of study that prepares students for public religious leadership both in traditional ministerial professions and in new and emerging forms of ministry.

Additional information can be found in the Divinity School *Announcements* and website. (<http://divinity.uchicago.edu>)



THE LAW SCHOOL

The Law School offers a three-year program of professional instruction leading to the degree of Doctor of Law (J.D.). It is designed to prepare students for the practice of law in any American jurisdiction. A bachelor's degree from an approved college is usually a prerequisite to admission. All applicants must take the Law School Admission Test; a waiver is available for students doing a dual degree at the University of Chicago. Each entering class is limited to approximately 190 students. A student in good standing at an approved American law school who has completed at least one year of law study or a graduate of an approved foreign law school whose studies have been primarily in the common law may apply for admission with advanced standing. Please review the Law School website for any updated information.

The school offers advanced studies leading to the degrees of Master of Laws (LL.M.), Master of Legal Studies (M.L.S.), Doctor of Jurisprudence (J.S.D.), Master of Comparative Law (M.Comp.L.), and Doctor of Comparative Law (D.Comp.L.).

What sets Chicago apart from other law schools is its unabashed enthusiasm for the life of the mind and its conviction that ideas matter and are worth discussing. We value legal education and training, not only as preparation for legal careers, but for their own sakes as well. Legal study at Chicago is a passionate venture that begins in the classroom, where the faculty engage their students in a rigorous Socratic dialogue. Chicago's unique first year required course, *Elements of the Law*, introduces students to the law as an interdisciplinary field and gives them the tools to continue the interdisciplinary inquiry throughout their legal education.

Chicago remains committed to legal education as an education for generalists, although students with particular interests will find it possible to study topics in depth through advanced and more specialized courses.

Emphasizing the acquisition of broad and basic knowledge of law, an understanding of the functioning of the legal system, and the development of analytic abilities of the highest order, a Chicago legal education prepares students for any professional role they might choose: legal practice or legal education, entrepreneurial ventures, international private or public law practice, corporate practice, government service, alternative dispute resolution including arbitration and mediation, or work with nonprofit organizations. Graduates do many things in their careers, and they all take with them the analytic skills emphasized during their years at the Law School.

In addition to a wide array of courses and seminars, second and third year students may participate in a number of clinical programs, including the Prosecution and Defense Clinic, the Housing Initiative Clinic, the Criminal and Juvenile Justice Project Clinic, the Civil Rights Clinic: Police Accountability, the Institute for Justice Clinic on Entrepreneurship, the Exoneration Project Clinic, the International Human Rights Clinic, the Jenner & Block Supreme Court and Appellate Clinic, the Employment Law Clinic, the Federal Criminal Justice Clinic, the Mental Health Advocacy Clinic, the Innovation Clinic, the Kirkland & Ellis Corporate Lab Clinic, the Young Center Immigrant Child Advocacy Clinic, and the Abrams Environmental Law Clinic. In these programs, students engage in supervised practice, including the representation of clients in court.

A significant portion of the faculty specialize in disciplines other than law, such as economics, history, sociology, and political science. The curriculum devotes substantial attention to relevant aspects of economics, legal history, comparative law, psychiatry, statistics, and other social science methodology. In addition to the student edited *University of Chicago Law Review*, *Legal Forum*, and the *Chicago Journal of International Law*, the school has three scholarly journals: the *Supreme Court Review*, the *Journal of Law and Economics*, and the *Journal of Legal Studies*. The Law School is also home to the Center for Comparative Constitutionalism, the Coase-Sandor Institute for Law and Economics, the Center for Studies in Criminal Justice, and the Legal History Program.

Detailed information on admission, programs, faculty, and facilities is contained in the *Announcements* of the Law School, available online.



INSTITUTE FOR MOLECULAR ENGINEERING

ime.uchicago.edu

Dean

- Matthew Tirrell

Academic and Student Affairs

- Paul Nealey, Brady W. Dougan Professor in Molecular Engineering and Deputy Director for Education and Outreach
- Rovana Popoff, Senior Associate Dean and Dean of Students
- David Taylor, Associate Dean of Students
- Lisa Abston-Leftridge, Assistant Dean of Students

Faculty

- David Awschalom (http://ime.uchicago.edu/awschalomlab/people/david_awschalom)
- Hannes Bernien (https://ime.uchicago.edu/bernien_lab/hannes_bernien)
- Nicolas Chevrier (https://ime.uchicago.edu/chevrier_group/people/nicolas_chevrier)
- Andrew Cleland (http://ime.uchicago.edu/andrew_cleland)
- Aashish Clerk (https://ime.uchicago.edu/aashish_clerk)
- Juan de Pablo (http://ime.uchicago.edu/de_pablo_lab/people/juan_de_pablo)
- Aaron Esser-Kahn (https://ime.uchicago.edu/esser_kahn_group/people/aaron_esser_kahn)
- Andrew Ferguson (https://ime.uchicago.edu/andrew_ferguson)
- Giulia Galli (https://ime.uchicago.edu/galli_group/people/giulia_galli)
- Supratik Guha (http://ime.uchicago.edu/guha_lab/people/supratik_guha)
- Alex High (https://ime.uchicago.edu/alex_high)
- Jun Huang (http://ime.uchicago.edu/huang_group/people/jun_huang)
- Jeffrey Hubbell (http://ime.uchicago.edu/hubbell_lab/people/jeffrey_hubbell)
- Nancy Kawalek (http://ime.uchicago.edu/nancy_kawalek)
- Chong Liu (https://ime.uchicago.edu/liu_group/people/chong_liu)
- Peter Maurer (https://ime.uchicago.edu/maurer_group/peter_maurer)
- Juan Mendoza (https://ime.uchicago.edu/juan_mendoza)
- Paul Nealey (http://ime.uchicago.edu/nealey_lab/people/paul_nealey)
- Jiwoong Park (https://ime.uchicago.edu/jiwoong_park)
- Shrayesh Patel (https://ime.uchicago.edu/patel_group/people/shrayesh_patel)
- Rama Ranganathan (https://ime.uchicago.edu/rama_ranganathan)
- Stuart Rowan (https://ime.uchicago.edu/rowan_group/people/stuart_rowan)
- James Skinner (https://ime.uchicago.edu/skinner_group/people/james_skinner)
- Melody Swartz (https://ime.uchicago.edu/swartz_group/people/melody_swartz)
- Savas Tay (https://ime.uchicago.edu/savas_tay)
- Matthew Tirrell (http://ime.uchicago.edu/tirrell_lab/people/matthew_tirrell)
- Sihong Wang (https://ime.uchicago.edu/wang_group/sihong_wang)
- Shuolong Yang (https://ime.uchicago.edu/shuolong_yang)
- Tian Zhong (https://ime.uchicago.edu/tian_zhong)

The Pritzker School of Molecular Engineering (PME) is at the forefront of an emerging field. This exciting venture prepares students to combine problem-solving skills with broad expertise in the fundamental sciences to build useful systems from the molecular level up. The PME's approach to engineering research and education emphasizes analytical and disciplinary integration, rather than the traditional separation of engineering disciplines. As a result, students from diverse scientific backgrounds may collaborate on research projects that involve the incorporation of synthetic molecular building blocks, including electronic, optical, mechanical, chemical, and biological components, into functional systems that will impact technologies from advanced medical therapies to quantum computing.

Established in 2011 by the University of Chicago, in partnership with Argonne National Laboratory (<http://www.anl.gov>), the PME brings together a growing team of world-class researchers from diverse science and

engineering disciplines who take a hands-on approach to mentoring students and cultivating relationships with industrial and academic partners - resulting in exciting discoveries, new technologies, and innovative solutions.

PME researchers conduct much of their work at the William Eckhardt Research Center, one of the largest and most modern accessible nanofabrication facilities in the Midwest, which includes cutting-edge clean rooms, molecular imaging facilities, biomolecular research labs, and a wet-lab for nanofabrication and other materials work. Additionally, Argonne National Laboratory brings important resources to the endeavor, including the Advanced Photon Source (<http://www.aps.anl.gov>), the Argonne Leadership Computing Facility (<http://www.alcf.anl.gov>) and the Center for Nanoscale Materials (<http://nano.anl.gov>).

HOW TO APPLY

The Pritzker School of Molecular Engineering welcomes students with diverse academic backgrounds, including all fields of physical, biological and computational sciences, who possess the motivation and background to transcend disciplinary boundaries and pursue research in a bold, problem-focused way. Applicants to the Ph.D. program should have a bachelor's degree in a STEM field and should provide scores for the GRE general test the TOEFL and IELTS (if not a native English speaker) (<https://internationalaffairs.uchicago.edu/page/english-language-requirements>). The relevant GRE subject test scores will be considered if submitted, and could strengthen an application, but are not strictly required. Please submit a personal statement of research interests, three recommendation letters, and transcript(s) from all undergraduate and graduate institutions, along with payment of the \$90 application fee. Applications are due January 3, 2019 at 11:59 PM central standard time. <https://apply-ime.uchicago.edu/apply>

DEGREE REQUIREMENTS

Graduate students entering the PME Ph.D. program are expected to fulfill a set of course requirements including 3 core courses, 4 in-depth courses in the area relevant to their research field of choice, and 2 broad elective courses. The core and in-depth courses are selected from a portfolio of graduate-level courses, in conjunction with the faculty advisor. These courses are offered by the PME, sister departments (Physics, Chemistry, Biophysics, Computer Science and Biological Sciences), or are developed specifically for PME students. The broad electives are to provide students with the opportunity to acquire skills in leadership, communication, technology development and product design. The hallmark of PME's Ph.D. program is a highly customized curriculum tailored to each individual student's needs and inspirations.

The vibrant and diverse research activities pursued by PME faculty members offer students a broad range of research opportunities. First-year students explore these opportunities through a required first-year colloquium, a series of faculty research talks during autumn quarter, and by establishing relationships with individual faculty members. As a highly interdisciplinary environment, there are many opportunities to work with multiple faculty members within the PME and/or with faculty in other partner divisions at the University of Chicago and Argonne National Laboratory (see our website (<http://ime.uchicago.edu/partners>) for a full list). Every effort will be made to facilitate the matching of each student with one of their preferred advisors by the end of the first term.

Some students may be recommended for a terminal M.S. degree. Such students must have registered full time in the division for a minimum of three quarters and have completed nine courses at the 30000-level or above in STEM departments with grades of C or better (at least two must be research courses with an approved faculty member). In addition, these students may, at the discretion of the Director of Graduate Studies, be required to submit a paper on their research.

To establish candidacy, students are required to develop a research proposal describing the objectives, approaches and expected outcomes of their Ph.D. thesis work. Students will give an oral presentation of their written proposal in front of a faculty review committee for approval. This process should be completed no later than the end of the Winter quarter of the second year.

Pedagogical training is a component of our doctoral education. The PME requires that all graduate students engage in meaningful teaching experiences. Most students will satisfy this requirement by serving as Teaching Assistants. Students can also propose a meaningful teaching equivalent to be approved by the Director of Graduate Studies and the Dean of Students (proposed equivalents must have clearly articulated pedagogical learning goals and objectives).

- Students entering the doctoral program in 2017, 2016, 2015, and 2014 must either complete two quarters as a Teaching Assistant or one quarter as a Teaching Assistant and one approved equivalent.
- Students entering the doctoral program after 2017 must either complete two quarters as a Teaching Assistant or one quarter as a Teaching Assistant and two approved equivalents.

PME graduate students are not expected to complete their teaching requirement in their first year, but may be asked to TA as needed in any year thereafter. While there is some consideration of student preferences in teaching assignments, assignments overall are determined by departmental need.

All students will receive scholarship support from the Pritzker School of Molecular Engineering for the first quarter. Subsequently, PME provides full financial support to all graduate students throughout their graduate study at the PME as long as they remain in good standing.

The PME adopts the residency requirement of the University of Chicago as a part of the degree requirements.

MOLECULAR ENGINEERING COURSES

MENG 30000. Introduction to Emerging Technologies. 100 Units.

This course will examine five emerging technologies (stem cells in regenerative medicine, quantum computing, water purification, new batteries, etc.) over two weeks each. The first of the two weeks will present the basic science underlying the emerging technology; the second of the two weeks will discuss the hurdles that must be addressed successfully to convert a good scientific concept into a commercial product that addresses needs in the market place.

Instructor(s): Matthew Tirrell, Mustafa Guler Terms Offered: Autumn

Prerequisite(s): Completion of the general education requirements in mathematics and physical or biological sciences

Equivalent Course(s): MENG 20000

MENG 30200. Academic/Professional Writing for STEM. 000 Units.

Equivalent Course(s): BSDG 33000, PHSC 33000

MENG 31100. Molecular Science and Engineering of Water. 100 Units.

This course will cover the properties of the water molecule, hydrogen bonding, clusters, supercritical water, condensed phases, solutions, confined and interfacial water, clathrates, and nucleation. In addition, methods of water purification, water splitting and fuel cells, water in atmospheric and climate science, and water in biology, health and medicine will be discussed.

Instructor(s): James Skinner, Chong Liu Terms Offered: Autumn

Prerequisite(s): MENG 26201 or CHEM 26200 or PHYS 27900 (or concurrent)

Equivalent Course(s): MENG 21100

MENG 32000. Math Methods in Molecular Engineering. 100 Units.

This course will provide an overview of the general mathematical framework required for the further study of the basic theories (e.g. thermodynamics, quantum mechanics, transport) of molecular engineering. The content of this course mainly includes differential equations, statistics, complex analysis, integral transforms, and stochastic processes, which will be illustrated in the context of common problems in diffusion, heat conduction, particle transfer, and chemical reactions. This course will lay the mathematical foundations for further study in other courses, as well as in future computational research activities.

Instructor(s): Sihong Wang Terms Offered: Autumn

Prerequisite(s): Required Math Courses in the Core, Algebra, Calculus, Physics

MENG 32500. Polymer Physics. 100 Units.

This course is an advanced introduction to polymer physics taught at a level suitable for senior undergraduates and graduate students in STEM fields. Topics that will be covered include the statistics and conformations of linear chain molecules; polymer brushes; thermodynamics and dynamics of polymers, polymer blends and polymer solutions; phase equilibria; networks, gels, and rubber elasticity; linear viscoelasticity; and thermal and mechanical properties.

Instructor(s): Paul Nealey Terms Offered: Spring

Prerequisite(s): MENG 22500

Equivalent Course(s): MENG 27300

MENG 32510. Introduction to Polymer Science. 100 Units.

This course introduces the basics of polymer materials and their behavior and properties. The course will cover a general overview to polymers, basic terminology and definitions, their classification, and their applications. The mechanistic and kinetic behavior of the major classes of polymerization reactions (step-growth, chain addition, and "living" polymerizations) will be introduced with respect to control over polymer structure/architecture, size, and properties. The course will also discuss polymer properties, polymer thermodynamics, and basic structure-property relationships that provide polymers with their unique characteristics compared to small molecules. Techniques for characterizing the chemical and physical properties of polymer solutions will be introduced, including osmometry, viscometry, and gel permeation chromatography.

Instructor(s): Paul Nealey, Stuart Rowan Terms Offered: Autumn

Prerequisite(s): MENG 26201 or CHEM 26200

Equivalent Course(s): MENG 22500

MENG 32520. Polymer Synthesis. 100 Units.

This course introduces the most important polymerization reactions, focusing on their reaction mechanisms and kinetic aspects. Topics include free radical and ionic chain polymerization, step-growth polymerization, ring-opening, insertion, controlled living polymerization, crosslinking, copolymerization, and chemical modification of preformed polymers.

Instructor(s): Stuart Rowan Terms Offered: Winter

Prerequisite(s): CHEM 22000 and CHEM 22100

Equivalent Course(s): MENG 27320

MENG 33000. Thermodynamics and Statistical Mechanics. 100 Units.

This course will present an overview of thermodynamics and statistical mechanics in the context of molecular engineering applications. Such applications will include prediction of the thermophysical properties of multicomponent gases, solids and liquids, prediction of adsorption processes on surfaces or interfaces, and molecular-level descriptions of synthetic and biological macromolecules in solution. Throughout the course, emphasis will be placed on connecting molecular structure and interactions to measurable macroscopic properties.

Instructor(s): Juan de Pablo Terms Offered: Autumn

Prerequisite(s): Chemistry 26100-26200 or equivalent or the consent of the instructor

MENG 33300. Quantum Engineering. 100 Units.

Quantum mechanics underlies many areas of modern engineering, including materials science, photonics, electronics, metrology, and information processing. This course explores both the fundamental physics of quantum systems as well as the tools utilized to engineer and control them. Topics to be discussed may include eigenvalues and eigenstates, harmonic oscillators, operators, symmetries, spin, angular momentum, perturbation theory, and time evolution. We will also explore examples of engineered quantum systems. The course will assume that students have prior exposure to quantum mechanics at the intermediate undergraduate level.

Instructor(s): Michael Flatte Terms Offered: Winter

Prerequisite(s): Equivalent to CHEM 26100 or PHYS 23400-23500

MENG 33310. Experimental Techniques and Advanced Instrumentation. 100 Units.

This course aims to provide students with a knowledge of state-of-the-art experimental measurement techniques and laboratory instrumentation for applications in broad scientific research environments, as well as industrial and general engineering practice. Topics include atomic-scale structural and imaging methods, electronic transport in low dimensional matter, magnetic and optical characterization of materials. Basic concepts in electronic measurement such as lock-in amplifiers, spectrum and network analysis, noise reduction techniques, cryogenics, thermometry, vacuum technology, as well as statistical analysis and fitting of data will also be discussed.

Instructor(s): David Awschalom Terms Offered: Spring

Prerequisite(s): PHYS 23400 and PHYS 23500 for undergraduates

Equivalent Course(s): MENG 23310

MENG 33500. Foundations of Quantum Optics. 100 Units.

Quantum optics seeks to illuminate the fundamental quantum mechanics of the interaction of light and matter. These principles can form the basis for quantum technologies in areas such as cryptography, computation, and metrology. This course provides a foundation in the fundamental principles and applications of quantum optics. Topics to be discussed may include Fermi's Golden Rule, interaction of two-level atoms and light, spontaneous emission, Rabi oscillations, classical and non-classical photon statistics, beam splitters, atom cavity interaction, vacuum-Rabi splitting, coherence, entanglement, and teleportation. The course will assume that students are comfortable with single-particle quantum mechanics at the level of a typical introductory graduate-level course.

Instructor(s): Alex High Terms Offered: Winter

Prerequisite(s): PHYS 23400 and PHYS 23500, or CHEM 26100, or equivalent

Equivalent Course(s): MENG 23500

MENG 33600. Quantum Dissipation and Quantum Measurement. 100 Units.

This course provides an introduction to the basic tools and concepts used to describe dissipative quantum systems, where a closed quantum system (described by a Hamiltonian) interacts with a dissipative environment. We will also discuss the basic theory of weak continuous quantum measurements and basic quantum limits to measurement. Applications to quantum optics and quantum information processing and will be stressed. Topics to be discussed may include quantum master equations, stochastic wavefunction evolution (i.e. quantum trajectories), quantum noise, quantum Langevin equations, and path integral approaches. The course will assume that students are comfortable with single-particle quantum mechanics at the level of a typical introductory graduate-level course.

Instructor(s): Aashish Clerk Terms Offered: Spring

Prerequisite(s): PHYS 34100 or Equivalent

MENG 33700. Quantum Computation. 100 Units.

This course provides an introduction to the fundamentals of quantum information to students who have not had training in quantum computing or quantum information theory. Some knowledge of quantum mechanics is expected, including bra-ket notation and the time-dependent form of Schrodinger's equation. Students will learn how to carry out calculations and gain a fundamental grasp of topics that will include some or all of: entanglement, teleportation, quantum algorithms, cryptography, and error correction.

Instructor(s): Andrew Cleland Terms Offered: Winter

Prerequisite(s): PHYS 22100 or equivalent

Equivalent Course(s): MENG 23700

MENG 33710. Synthetic Biology. 100 Units.

The objective of this course is to provide an overview of the fundamentals of synthetic biology by exploration of published and primary literature. Synthetic biology is an interdisciplinary area that involves the application of engineering principles to biology. It aims at the (re-)design and fabrication of biological components and systems that do not already exist in the natural world. Our goal in the course will be to examine how to apply design principles to biological systems. This will require understanding how biological systems operate, what design principles are successful in biology, and a survey of current approaches in the field to tackle these challenges. Topics will include genetic manipulation, pathway engineering, protein design, cellular engineering, and tools for information input and output in biological systems.

Instructor(s): Aaron Esser-Kahn Terms Offered: Spring

Prerequisite(s): Completion of the first two quarters of a Biological Sciences Fundamentals Sequence. MENG 26102, BIOS 20236, and BIOS 20200 are recommended but not required.

Equivalent Course(s): MENG 23710

MENG 33800. Introduction to Nanofabrication. 100 Units.

This course will cover the fundamentals of nanofabrication from a practical viewpoint and will be useful for students planning to pursue research involving semiconductor processing technology, as well as broader topics such as microelectromechanical systems (MEMS), quantum devices, optoelectronics, and microfluidics. This course will cover the theory and practice of lithographic patterning; physical and chemical vapor deposition; reactive plasma etching; wet chemical processing; characterization techniques; and other special topics related to state-of-the-art processes used in the research and development of nanoscale devices. A solid grounding in introductory chemistry and physics is expected.

Instructor(s): Peter Duda Terms Offered: Winter

Prerequisite(s): PHYS 13300 and CHEM 10200, or equivalent

Equivalent Course(s): MENG 23800

MENG 34100-34200. Selected Topics in Molecular Engineering: Molecular/Materials Modelling I-II.

Molecular modeling seeks to develop models and computational techniques for prediction of the structure, thermodynamic properties, and non-equilibrium behaviour of gases, liquids, and solids from knowledge of intermolecular interactions.

MENG 34100. Selected Topics in Molecular Engineering: Molecular/Materials Modeling I. 100 Units.

This course will introduce students to the methods of molecular modeling. The topics covered will include an introduction to the origin of molecular forces, a brief introduction to statistical mechanics and ensemble methods, and an introduction to molecular dynamics, Brownian dynamics, and Monte Carlo simulations. The course will also cover elements of advanced sampling techniques, including parallel tempering, umbrella sampling, and other common biased sampling approaches. Course work or research experience is strongly recommended in: (1) elementary programming (e.g., C or C++), and (2) physical chemistry or thermodynamics.

Instructor(s): Andrew Ferguson Terms Offered: Winter

Prerequisite(s): MATH 20100 or PHYS 22100, and MENG 26201 or PHYS 27900 or CHEM 26200

Equivalent Course(s): MENG 24100

MENG 34200. Selected Topics in Molecular Engineering: Molecular/Materials Modeling II. 100 Units.

Quantum mechanical methods, including quantum chemistry, density functional theory (DFT), and many body perturbation theory, for simulating the properties of molecules and materials will be explored in this course. Numerical algorithms and techniques will be introduced that allow for solution of approximate forms of the Schrodinger and Boltzmann Equations that model structural and transport properties of molecules and materials. The coupling of DFT with molecular dynamics will be detailed for determining finite temperature properties. Coupling of DFT with spin Hamiltonians to study dynamical spin correlations in materials will also be described. Examples of the application of quantum mechanical methods to materials for energy conversion and quantum information technologies will be provided.

Instructor(s): Giulia Galli Terms Offered: Spring

Prerequisite(s): PHYS 23400 or CHEM 26100 or instructor consent

Equivalent Course(s): MENG 24200

MENG 34200. Selected Topics in Molecular Engineering; Molecular/Materials Modeling II. 100 Units.

Quantum mechanical methods, including quantum chemistry, density functional theory (DFT), and many body perturbation theory, for simulating the properties of molecules and materials will be explored in this course. Numerical algorithms and techniques will be introduced that allow for solution of approximate forms of the Schroedinger and Boltzmann Equations that model structural and transport properties of molecules and materials. The coupling of DFT with molecular dynamics will be detailed for determining finite temperature properties. Coupling of DFT with spin Hamiltonians to study dynamical spin correlations in materials will also be described. Examples of the application of quantum mechanical methods to materials for energy conversion and quantum information technologies will be provided.

Instructor(s): Giulia Galli Terms Offered: Spring

Prerequisite(s): PHYS 23400 or CHEM 26100 or instructor consent

Equivalent Course(s): MENG 24200

MENG 34300. The Engineering and Biology of Tissue Repair. 100 Units.

In this course, students will gain an understanding of the science and application of tissue engineering, a field that seeks to develop technologies for restoring lost function in diseased or damaged tissues and organs. The course will first introduce the underlying cellular and molecular components and processes relevant to tissue engineering: extracellular matrices, cell/matrix interactions such as adhesion and migration, growth factor biology, stem cell biology, inflammation, and innate immunity. The course will then discuss current approaches for engineering a variety of tissues, including bone and musculoskeletal tissues, vascular tissues, skin, nerve, and pancreas. Students will be assessed through in-class discussions, take-home assignments and exams, and an end-of-term project on a topic of the student's choice.

Instructor(s): Jeffrey Hubbell Terms Offered: Spring

Prerequisite(s): BIOS 20186 or BIOS 20234

Equivalent Course(s): MPMM 34300, MENG 24300, BIOS 21507

MENG 34310. Cellular Engineering. 100 Units.

Cellular engineering is a field that studies cell and molecule structure-function relationships. It is the development and application of engineering approaches and technologies to biological molecules and cells. This course provides a bridge between engineers and biologists that quantitatively study cells and molecules and develop future clinical applications. Topics include fundamental cell and molecular biology; immunology and biochemistry; receptors, ligands, and their interactions; nanotechnology/biomechanics; enzyme kinetics; molecular probes; cellular and molecular imaging; single-cell genomics and proteomics; genetic and protein engineering; and drug delivery and gene delivery.

Instructor(s): Jun Huang Terms Offered: Winter

Prerequisite(s): Completion of the first two quarters of a Biological Sciences Fundamentals Sequence

Equivalent Course(s): MENG 24310, BIOS 21508, MOMN 34310

MENG 34400. Nanomedicine. 100 Units.

This course focuses on the applications of nanotechnology in medicine. The chemical, physical and biological features of the nanomaterials will be discussed for applications in medicine. A survey of concepts in therapeutic drug delivery methods, diagnostic imaging agents and cell-materials interactions will be discussed.

Instructor(s): Mustafa Guler Terms Offered: Winter

Prerequisite(s): Completion of the first two quarters of a Biological Sciences Fundamentals Sequence

Equivalent Course(s): BIOS 28410, MENG 24400

MENG 34500. Microfluidics and Its Applications. 100 Units.

Precision control of fluids at the micrometer scale (hence microfluidics) provides unprecedented capabilities in manipulation and analysis of cells and proteins. Moreover, fluids and particles behave in fundamentally different ways when confined to small dimensions, making microfluidics an interesting topic of basic research. This course aims to provide students with theoretical knowledge and practical skills on the use of microfluidics for the manipulation and analysis of physical, chemical, and biological systems. We will first survey theoretical concepts regarding microfluidics. We will then focus on design considerations and fabrication methods for multi-layer microfluidic chips using PDMS soft-lithography. We will learn how to fabricate, multiplex, and control PDMS membrane valves and integrate them into high-throughput analytical systems. We will survey recent developments in microfluidics and its scientific and industrial applications. Biological systems analysis in cell sorting, culture, cell signaling, single molecule detection, digital nucleic acid and protein quantification, and biosensing are some of the applications we will cover. This course will have a laboratory component where students will design, fabricate, and use microfluidic devices and therefore acquire hands-on skills in microfluidic engineering.

Instructor(s): Savas Tay Terms Offered: Spring

Prerequisite(s): MATH 13300 (or higher), or MATH 13200 (or higher) plus BIOS 20151 or BIOS 20152 or BIOS 20236

Equivalent Course(s): MENG 24500

MENG 34600. Quantitative Systems Biology. 100 Units.

This course aims to provide students with knowledge on the use of modern methods for the analysis, manipulation, and modeling of complex biological systems, and to introduce them to some of the most important applications in quantitative and systems biology. We will first survey theoretical concepts and tools for analysis and modeling of biological systems like biomolecules, gene networks, single cells, and multicellular systems. Concepts from information theory, biochemical networks, control theory, and linear systems will be introduced. Mathematical modeling of biological interactions will be discussed. We will then survey quantitative experimental methods currently used in systems biology. These methods include single cell genomic, transcriptomic, and proteomic analysis techniques, *in vivo* and *in vitro* quantitative analysis of cellular and molecular interactions, single molecule methods, live cell imaging, high throughput microfluidic analysis, and gene editing. Finally, we will focus on case studies where the quantitative systems approach made a significant difference in the understanding of fundamental phenomena like signaling, immunity, development, and diseases like infection, autoimmunity, and cancer.

Instructor(s): Savas Tay Terms Offered: Winter

Prerequisite(s): Completion of the first two quarters of a Biological Sciences Fundamentals Sequence
Equivalent Course(s): MENG 24600

MENG 34700. Biodiagnostics and Biosensors. 100 Units.

This course focuses on the biological and chemical interactions that are important for the diagnosis of diseases and the design of new assays. The principles and mechanisms of molecular diagnostics and biosensors, as well as their applications in disease diagnosis, will be discussed. Bioanalytical methods including electrochemical, optical, chemical separation, and spectroscopic will be described. Surface functionalization and biomolecular interactions will be presented for the development of protein and DNA based biosensor applications. The goals for the course are to introduce the fundamental mechanisms of bioanalytical methods/tools, examples of specific methods for diagnostic purposes, and analytical methods necessary for developing new precision medicine tools.

Instructor(s): Mustafa Guler Terms Offered: Spring

Prerequisite(s): Completion of the first two quarters of a Biological Sciences Fundamentals Sequence
Equivalent Course(s): MENG 24700, BIOS 28700

MENG 34800. Quantitative Immunobiology. 100 Units.

The science of immunology was born at the end of the 19th century as a discipline focused on the body's defenses against infection. The following 120+ years has led to the discovery of a myriad of cellular and molecular players in immunity, placing the immune system alongside the most complex systems such as Earth's global climate and the human brain. The functions and malfunctions of the immune system have been implicated in virtually all human diseases. It is thought that cracking the complexity of the immune system will help manipulate and engineer it against some of the most vexing diseases of our times such as AIDS and cancer. To tackle this complexity, immunology in the 21st century - similar to much of the biological sciences - is growing closer to mathematics and data sciences, physics, chemistry and engineering. A central challenge is to use the wealth of large datasets generated by modern day measurement tools in biology to create knowledge, and ultimately predictive models of how the immune system works and can be manipulated. The goal of this course is to introduce motivated students to the quantitative approaches and reasoning applied to fundamental questions in immunology.

Instructor(s): Nicolas Chevrier Terms Offered: Winter

Prerequisite(s): Completion of the first two quarters of a Biological Sciences Fundamentals Sequence. Knowledge of R is recommended but not required. Courses in immunology and microbiology are an advantage but not required (e.g., BIOS 25256 Immunobiology; BIOS 25206 Fundamentals of Bacterial Physiology).
Equivalent Course(s): BIOS 26403, MENG 24800, IMMU 34800

MENG 35100. Electrochemical Principles and Methods. 100 Units.

This course will cover topics related to basic electrochemical principles, methodologies, and systems. In particular, students will be given an overview of fundamental concepts related to electrochemical potential, electric double layer, electrode kinetics, and mass transport processes. In addition, the application of key electrochemical experimental methods will be covered. A few examples include cyclic voltammetry, AC impedance spectroscopy, and the rotating disk electrode. Throughout the course, students will apply basic principles of thermodynamics, kinetics, and transport phenomena. Lastly, a brief overview of traditional electrochemical systems and emerging technologies related to energy storage and conversion (e.g., lithium-ion batteries, flow batteries, and fuel cells) and bioelectronics applications will be discussed.

Instructor(s): Shrayesh Patel Terms Offered: Spring

Prerequisite(s): MENG 26102 and MENG 26201

Equivalent Course(s): MENG 25100

MENG 36300. Transport Phenomena. 100 Units.

This course covers essential aspects of molecular transport processes, including fluid dynamics, mass transport and diffusion processes, and energy and heat transport processes. It also discusses the coupling that arises between momentum, mass and energy transport processes.

Instructor(s): Jay Schieber Terms Offered: Autumn

MENG 37100. Biological Materials. 100 Units.

In this course, students will gain an understanding of the science and application of biomaterials, a field that utilizes fundamental principles of materials science with cell biology for applications in therapeutics and diagnostics. The course will introduce the basic classes of biomaterials, considering metals used in medicine, ceramics and biological inorganic materials such as hydroxyapatite, and polymers used in medicine. The basis of protein adsorption modulating biological interactions with these materials will be elaborated. Examples to be covered in the course will include polymers used in drug delivery, polymers used in protein therapeutics, polymers used in degradable biomaterial implants, polymers used in biodiagnostics, and hybrid and polymeric nanomaterials used as bioactives and bioactive carriers. An emphasis in the course will be placed on bioactive materials development. Students will be assessed through in-class discussions, take-home assignments and exams, and an end-of-term project on a topic of the student's choice.

Instructor(s): Jeffrey Hubbell and Mustafa Guler Terms Offered: Autumn

Prerequisite(s): BIOS 20186 and BIOS 20187, or BIOS 20234 and BIOS 20235

Note(s): This course does not meet the requirements for the Biological Sciences major.

Equivalent Course(s): BIOS 29328, MENG 27100

MENG 37200. Electronic and Quantum Materials for Technology. 100 Units.

This is a one-quarter introductory course on the science and engineering of electronic and quantum materials. The intended audience is upper-level undergraduate students and first-year graduate students in Molecular Engineering and other related fields, including Chemistry and Physics. We will learn the basics of electrical and optical properties of electronic materials, including semiconductors, metals, and insulators starting from a simple band picture, and will discuss how these materials enable modern electronic and optoelectronic devices and circuitry. We will also explore the modern synthesis techniques for these materials and the effects of reduced dimensions and emergent quantum properties. No comprehensive exposure to quantum mechanics, thermodynamics, or advanced mathematical skills will be assumed, even though working knowledge of these topics will be helpful.

Instructor(s): Jiwoong Park Terms Offered: Spring

Prerequisite(s): CHEM 26200 or PHYS 23500 or instructor consent

Equivalent Course(s): MENG 27200

MENG 40000. First-Year Graduate Research Colloquium. 000 Units.

Aimed both at nurturing the highly interdisciplinary environment of the IME and at supporting first-year students in their selection of research advisors, this weekly seminar surveys the research interests and projects of IME faculty and fellows. Required for all first-year Molecular Engineering graduate students.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): Required for all first-year Molecular Engineering graduate students.

MENG 49700. Research: Related Departments, Institutes, and Industries. 300.00 Units.

Individualized study focused on Ph.D. research in the molecular engineering

Instructor(s): STAFF Terms Offered: Autumn Spring Summer Winter

MENG 49900. Research: Molecular Engineering. 300.00 Units.

No description available.

Instructor(s): Staff Terms Offered: Summer, Autumn, Winter, Spring

MENG 70000. Advanced Study: Molecular Engineering. 300.00 Units.

Advanced Study: Molecular Engineering



THE IRVING B. HARRIS GRADUATE SCHOOL OF PUBLIC POLICY STUDIES

The Harris School of Public Policy is known for its policy-relevant research and for preparing talented individuals to become leaders and agents of social change. One of six professional schools, Harris is part of a world-class intellectual community and continues the University's tradition of scholarship intended to address real-world problems. Established in 1988, Harris emerged from the interdisciplinary Committee on Public Policy Studies. Influential founding supporters include educational sociologist James Coleman, urban sociologist William Julius Wilson, and the 2000 Nobel laureate economist James Heckman.

DEGREE OFFERINGS & PROGRAMMING

An exciting and challenging place to learn, Harris' model of public policy training reflects the University of Chicago's tradition of research and teaching — meticulous scholarship, open inquiry, and cross-disciplinary, critical thinking. Faculty come from diverse academic backgrounds and lend their individual expertise to a collaborative curriculum. Students come ready and willing to work and prepare for leadership in public policy. Alumni around the world apply their Chicago Harris training to a multitude of public policy issues, making an impact in whatever arena they choose to work.

The rigorous curriculum stresses the development of analytical tools, which form the basis of the program's approach to understanding the nature of social problems and the impact of public policy. Harris students become conscientious consumers of social science research and are able to evaluate information and make informed policy choices.

However, classroom training is only part of the equation. Harris provides opportunities for students to apply the critical skills that they learn in the classroom to real-world situations. Through a mentor program, internships, Policy Labs and other practica, Harris students are able to enrich their education, network with community leaders, and lend their growing public policy expertise to local, national, and international organizations. The School fosters a spirit of cooperation between students, public policy professionals, faculty, and others to address societal concerns and is constantly seeking new partnership opportunities.

Harris Degree Programs

- Master of Public Policy (<http://harris.uchicago.edu/degrees/masters-degree/MPP>) (MPP), A two-year program for students interested in gaining a thorough training in analytical skills.
- Master of Science in Computational Analysis and Public Policy (<http://capp.sites.uchicago.edu>) (MSCAPP), A two-year program offered with the Computer Science Department for students interested in the design, implementation, and rigorous analysis of data-driven policies.
- Master of Science in Environmental Science and Policy (<http://harris.uchicago.edu/degrees/masters-degree/ms-env-sci-policy>) (MSESP), A two-year program offered with the Argonne National Laboratory for students interested in assessing the scientific repercussions of policy on the environment.
- Master of Arts in Public Policy (<http://harris.uchicago.edu/degrees/masters-degree/one-year-am>) (AM), A one-year program for students already possessing another graduate degree or in conjunction with another University graduate program.
- Master of Arts in Public Policy with Certificate in Research Methods (<http://harris.uchicago.edu/degrees/masters-degree/macrm>) (MACRM), A 15-month program designed to prepare students for top-tier Ph.D. programs in economics and political science as well as other social sciences, policy, and business.
- Master of Arts in International Development and Policy (<https://harris.uchicago.edu/academics/programs-degrees/degrees/ma-international-development-and-policy-maidp>) (MAIDP), A one-year degree program that provides an introduction to policy design and analysis with particular emphasis on international development and policy. It applies evidence-based analytical approaches, cutting-edge tools, and practical policy innovation to address the world's most pressing problems.
- Double Executive Master's in Health Policy with the London School of Economics (<https://harris.uchicago.edu/academics/programs-degrees/degrees/double-executive-masters-health-policy-london-school-economics>) (AM/MSc), A two-year program designed for professionals working in the healthcare and health policy fields, participants earn an MA in Public Policy from Harris and a MS in Health Economics and Policy from the London School of Economics.
- Evening Master's Program @ 1871 (<https://harris.uchicago.edu/academics/programs-degrees/degrees/evening-masters-program-1871-part-time-ma>) (AM), A four academic quarter, 15-month, part-time degree program designed to help mid-career professionals lead their organizations through complex policy challenges and drive social impact.
- Doctor of Philosophy (PhD) (<http://harris.uchicago.edu/degrees/phd>), a doctoral degree for students seeking research-related careers in academia or elsewhere.

Joint Degree Programs with other University of Chicago Schools

Students can earn two University of Chicago graduate degrees in an accelerated time frame.

- Center for Middle Eastern Studies (<http://harris.uchicago.edu/degrees/joint-degree/middle-eastern-studies>) (MPP/AM), a three year program combining public policy with modern Middle Eastern languages, history, and civilization.
- Divinity School (<http://harris.uchicago.edu/degrees/joint-degree/divinity-school>) (MPP/MDiv), a four year program combining public policy with issues related to public and urban ministry.
- Chicago Booth School of Business (<http://harris.uchicago.edu/degrees/joint-degree/booth-school-of-business>) (MPP/MBA), a three year program combining studies in public policy and business administration.
- Law School (<http://harris.uchicago.edu/degrees/joint-degree/law-school>) (MPP/JD), a four year program combining studies in law and public policy.
- School of Social Service Administration (<http://harris.uchicago.edu/degrees/joint-degree/school-of-social-service-administration>) (MPP/AM), a three year program. Study broad social policy and issues that influence the social work profession.
- Master of Arts in Public Policy and International Relations (<http://harris.uchicago.edu/degrees/masters-degree/am-ma-cir>) (AM/MA), A two-year program offered with the Committee for International Relations for students interested in combining public policy training with a focus on international relations.

Programs for University of Chicago College Students

- The BA/MPP in Public Policy Studies Program (<http://collegecatalog.uchicago.edu/jointdegreeppha>) with the College, a five-year program that offers students an opportunity to begin their professional training in public policy while still in the College, leading to the award of a four-year undergraduate degree in their declared major and a two-year master of public policy (MPP) degree after five years of studies at the University of Chicago.
- The BA/MS in Computational Analysis and Public Policy Program (<http://collegecatalog.uchicago.edu/jointdegreepphams>) (BA/MSCAP) with the College, a five-year program offered by The Harris School of Public Policy in conjunction with the Department of Computer Science, offers students an opportunity to begin their professional training in the growing field of civic technology and data science in public policy while still in the College, leading to the award of a four-year undergraduate degree in their declared major and a two-year master of science degree in computational analysis and public policy (MSCAPP) after five years of study at the University of Chicago.
- Harris Scholars Program, (AB, plus MPP or MSCAPP) (<http://harris.uchicago.edu/chicagoharrisscholars>), allows University of Chicago College students to apply for admission to the MPP or MSCAPP programs during their fourth year of study and defer enrollment for two years while obtaining quality experience in the labor market.



THE SCHOOL OF SOCIAL SERVICE ADMINISTRATION

MISSION

The School of Social Service Administration is dedicated to working toward a more just and humane society through research, teaching, and service to the community. As one of the oldest and most highly regarded graduate schools of social work, we prepare professionals to handle society's most difficult problems by developing new knowledge, promoting a deeper understanding of the causes and human costs of social inequities, and building bridges between rigorous research and the practice of helping individuals, families, and communities to achieve a better quality of life.

PROFESSIONAL PURPOSE

Our educational program is grounded in the profession's history, purposes, and philosophy. Founded in 1908, the School of Social Service Administration (SSA) is one of a handful of institutions that has helped define the profession of social work and the field of social welfare. SSA's first leaders were activists in the Chicago settlement house movement, one of the main strands in what eventually became social work. Since its inception, while most early schools of social work concentrated on practical training for caseworkers, SSA's leaders insisted on the need for a solid foundation in social science and social research as well. In the decades since, the emphases on social research and on applying the insights of social science to solving human problems have continued. The School continues to establish the connections between the social and behavioral sciences, research, and the real world of policy and practice. SSA's interdisciplinary faculty is drawn from social work as well as from such related fields as economics, psychology, sociology, anthropology, political science, public policy, and public health. Research at the School reflects this diversity, and contributes to the development of social work knowledge.

The Master of Arts Program is a two-year program that has been continuously accredited by the Council on Social Work Education and its predecessor organizations since 1919. SSA was reaccredited through June 2020. The School prepares students for advanced professional practice. Based on a body of knowledge, values, and skills of the profession, SSA's diverse course offerings provide students with a solid foundation in the profession and substantive exploration of two concentrations (clinical practice and social administration), the latter of which includes focused attention to non-profit management, community organization and development, and social policy. Quality instruction promotes the development of competent and effective professionals in these areas. Classes are intended to challenge and engage students in the dynamic interplay of theory, research, and practice. Students gain an understanding that whatever the focus of their practice, from the clinical micro-level to the policy macro-level, their activities are guided by an appreciation of service in society and informed by a rigorous evidence and conceptual base.

Since 1920, our Doctoral Program has provided training for those interested in pursuing an academic career in social work and social welfare. SSA's doctoral graduates are leaders in the field of social work and social welfare scholarship. The program is designed to deepen students' mastery of both social science theory and research methods so that students are prepared to contribute to scholarly knowledge in innovative ways. The program accommodates students who are interested in developing and evaluating practice methods and interventions as well as those interested in understanding social problems and accompanying institutional and political responses. The diverse theoretical approaches of SSA's faculty make it uniquely positioned to support an interdisciplinary course of study.

VALUES

SSA's educational program is informed by the values of the social work profession. As such, we prepare professionals who are committed to improving the lives of vulnerable and diverse populations and promoting social and economic justice locally, nationally, and globally. Social work values ensure that service is driven by a humanistic perspective that values difference and asks us to consider the impact of our ideas and our work on the well-being of our clients, of our colleagues, of our agencies, and on society as a whole. Our values require that we treat others with dignity and respect and make human rights and social justice central to our work. As a school, SSA strives to be an exemplar of social work education, committed to fostering an inclusive, engaging, and rigorous educational experience, welcoming to all.

Our values require that we behave ethically in both our personal and professional lives. Our ethical precepts encompass such matters as treating our clients with dignity, honoring human diversity and differences, never exploiting clients for our own interests, and always acting in the best interest of clients. This is accomplished through human relationships, honoring the value of integrity and giving graduates the competence to achieve professional goals of the highest quality. Similar precepts govern our relationships with other professionals. We recognize our responsibilities to the organizations for which we work, but we also have the obligation to question policies and practices in the workplace that may not be aligned with the best interests of our clients. We value scientific inquiry and the use of scientific evidence, as well as the development and implementation of evidence-

based policy and practice. Finally, our values require continued professional growth and development through lifelong learning.

PROGRAM CONTEXT

THE UNIVERSITY OF CHICAGO

Since its founding, the University's mission has been expressed in its motto, *Crescat scientia; vita excolatur*, "Let knowledge grow from more to more; and so be human life enriched." The University is committed to the development of new knowledge, both for its own sake and for the common good. The link of its mission to the mission and purpose of SSA is clear. As social problems become more complex, interconnected, and sprawling, SSA is building upon its distinctive interdisciplinary and applied traditions to generate more robust knowledge and to educate the most talented social work leaders, thereby achieving even greater social benefit, both locally and globally.

SSA's first dean, Edith Abbott, said in 1920 when SSA became a full-fledged professional school, that "only in a university, and only in a great university, could a school of social work get the educational facilities that advanced professional students must have if they were to become the efficient public servants of democracy." Our current President, Robert Zimmer, shares her sentiment and stated during his address during the 487th convocation, "The University of Chicago, from its very inception, has been driven by a singular focus on inquiry...with a firm belief in the value of open, rigorous, and intense inquiry and a common understanding that this must be the defining feature of this university. Everything about the University of Chicago that we recognize as distinctive flows from this commitment."

In his speech at the City Club of Chicago in 2012, President Zimmer again emphasized the role of the University and SSA in generating knowledge for social benefit:

...since its earliest days, the University has strived to serve this city well. In fact, the University's first president, William Rainey Harper, saw service to the broader community as essential to the University's mission. To fulfill this mission, he established the Extension Division, which consisted of public lectures and correspondence courses, and the University Press, which dispersed University research to a wide audience. Both were revolutionary developments in American higher education. As Richard Storr wrote in his history of Harper's tenure as president, "The outward thrust of the University was both deliberate and continuous."

Zimmer continued,

I could offer a great many examples of academic and research programs that illustrate Storr's link.... But I would like to turn briefly to the School of Social Service Administration, whose service to the community epitomizes that outward thrust at the same time as it underscores the university's singular focus on inquiry and belief in data-driven arguments and ideas.... One of the earliest schools of social work, SSA has its roots in the Chicago settlement house movement and is firmly tied to the history and institutions of this city. At its inception, its mission was to provide professional academic training to those serving the most vulnerable residents in the city's poorest neighborhoods.

Over the years, faculty members, administrators, and alumni have helped draft parts of the Social Security Act, have enforced child labor laws, and have fought for low-income working mothers. They have fostered the century-long partnership with Children's Memorial Hospital (now the Ann & Robert H. Lurie Children's Hospital of Chicago) and forged partnerships with over 700 agencies and programs throughout the city as part of their field placement program. They have moved from their professional training to leadership positions within social services agencies throughout the city and across the country, helping to shape the policies that transform lives. All the while, they have been focused on helping to find solutions for some of the most intractable problems of the city.

SSA is held to the highest of intellectual standards, and faculty recruitment and promotions are guided by rigorous expectations. Students take advantage of the opportunities available in the University, and are able to make use of the rich course offerings of its other departments. In addition to taking courses at SSA from faculty trained across multiple disciplines, students take courses in the schools of law, business, medicine, divinity, and public policy, and in departments of anthropology, sociology, psychology, psychiatry, and others. This is a university in which such a cross-walk between disciplines and departments is fluid, actively encouraged, and easily accomplished.

CITY OF CHICAGO

As a great American city, Chicago and its surroundings provide a superb context for learning in the field. It is one of the nation's most diverse cities—a kaleidoscope of social and cultural traditions and populations. Chicago experiences all of the significant problems of the modern metropolis: poverty, violence, crime, dysfunctional schools, inadequate health services, drug use, family breakdown, social exclusion, and community disruption. Our students are able to witness, learn from, and contribute to this complex of activity.

Chicago has notably been at the forefront of pioneering movements in social work, community organizing, women's rights, urban planning and architecture, labor organizing, and African American politics. Building on this tradition, recent initiatives such as the University of Chicago Urban Labs, including its Crime Lab, Education Lab and Health Lab; the Network for College Success; the Employment Instability, Family Well-being, and Social

Policy Network (EINet); the STI and HIV Intervention Network (SHINE); CalYouth; the Smart Decarceration Initiative; and the Chicago Center for Youth Violence Prevention (one of six national Academic Centers of Excellence funded by the Centers for Disease Control and Prevention)—all led or co-led by SSA faculty—yield both knowledge for the field at-large and tangible benefit to the citizens of Chicago, as well as offer opportunities to expand the University's partnership with the City of Chicago. Our ever-deepening partnerships with the neighbors in our community serve to enhance the quality of life and economic development of Chicago's South Side, as well as the City of Chicago more broadly and beyond to the national and international levels. With this, SSA plays a very visible role in materially advancing the University's larger purpose to "enrich human lives."

Most recently, SSA has been a chief architect in developing new University urban efforts, including the Mansueto Institute for Urban Innovation, which draws on the strengths of the University of Chicago, as well as SSA's approach in applying multiple lenses to complex social problems. As a hub focused on the possibilities of urbanization, the Institute will accelerate urban scholarship through seed funding for such issues as health care, youth development, and violence reduction research – areas where SSA plays a major role. And as home to urban scholars trained in a dozen different disciplines, SSA also is vital to UChicago Urban, a newly launched University commitment that strives to understand urban issues and create positive impact on urban life. SSA has long pioneered the use of scientific research to identify the causes of and solutions to complex social problems.

THE GLOBAL CONTEXT

As social problems become ever more globally interconnected, SSA has adopted a strategic commitment to and begun the deliberate implementation of a robust international social welfare program agenda. Our program presently includes a significant focus on international social welfare by integrating cross-national and comparative content into our curriculum, developing study-abroad and internship placement opportunities for students, organizing lectures by international scholars visiting Chicago, and promoting scholarly and student exchanges in partnership with peer institutions abroad. With support provided by the University's Provost's Office, SSA has undertaken a permanent expansion of its faculty ranks, with a strategic focus placed on bringing in faculty with explicit expertise in global and international social welfare. Our first of several faculty hires in this emerging domain joined us in July 2012; since then, SSA has hired additional faculty members, taking SSA's expertise on global questions to an unprecedented level, and allowing the School to forge a defining role in the globalization of social welfare concerns and problems. We now have a full cadre in place that takes up social welfare policy and practice across Asia, Central/Latin America, the former Soviet Union, and Africa, which also complements work in Europe. SSA faculty also serve on the Steering Committee of the University's Center in Delhi, the University's Beijing Governance Committee, and the international advisory board of the *Indian Journal of Social Work*. We are completing our third year of a concentration in international social work, which builds out field experiences in India, China, and Hong Kong, and through the University's Human Rights program. In addition, we are beginning to develop a global social policy and practice certificate for a more substantive cluster of courses and fieldwork.

One outgrowth of our growing visibility on the global stage is a new acceleration of our international student enrollment, which reached an all-time high this year.

We run an annual, intensive, one-month study-abroad program on urban poverty and community practice for our master's students in collaboration with the Tata Institute of Social Sciences (TISS) in Mumbai, India, the oldest established school of social work in that country. This program combines classroom instruction, field experience (pairing SSA with TISS students in a small set of community placements), seminar discussion, and informal engagement with students and faculty from both schools. The program includes a reciprocal exchange in Chicago, in which TISS students engage in a parallel program to the one in India, strengthening comparative learning across institutions and countries and building meaningful peer relationships. This work has also begun to generate research collaboration among faculty at both institutions.

In China, SSA has established a relationship with colleagues at Peking University (PKU), the home to mainland China's oldest and most well-established social work program. We have hosted PKU faculty at Chicago on two separate occasions and have visited PKU to share insights and orientations to social work curriculum and field education as well as to explore common research interests. We are also partnering with PKU as part of the China Collaborative, an effort jointly sponsored by the Council of Social Work Education in the United States, China Association of Social Work Educators in China, and the International Association of Schools of Social Work to foster the advancement of social work education and the professionalization of social work in China during a time of rapid development. In addition to co-organizing with PKU two workshops in Beijing, SSA hosted, in fall 2014, a delegation of faculty from some of China's leading social work programs, introducing them to a week-long immersion in SSA's robust educational fieldwork-classroom integration.

We established, in 2013, an intensive Institute in China in partnership with Hong Kong Polytechnic University (PolyU) that focuses on responses to social exclusion in Hong Kong, mainland China, and the United States. The annual program allows students from SSA and PolyU to learn from and gain perspectives from each other. The intensive institutes have included local site visits in Hong Kong and Mainland China, where students have examined local social welfare issues facing migrants, asylum seekers, and tenant farmers, including housing shortages, health inequality, and economic development policies. As with the TISS program, this exchange is designed to maximize interaction and learning between students from Hong Kong, China, the U.S., and elsewhere, through a range of formal curricular, field-oriented, and informal interactions, and to leverage the

comparative perspective such an exchange might provide to think critically about social work practice and social welfare.

SSA, with our counterparts at Peking University, co-sponsored and hosted a scholarly seminar and strategic planning workshop in June 2012 with support from the University of Chicago's recently established Beijing Center. The seminar explored international perspectives on social policy and urban problems. It brought together scholars from China, the United States, India, and South Korea to also explore knowledge about, policy responses to, and enduring questions focused on urbanization and globalization across particular substantive themes—education, health, children and youth, and poverty and development—as they are playing out across these four national contexts. Following the seminar, a strategic planning workshop was held to discuss the possibilities for both dyadic and multilateral exchanges and institutional relationships among participating institutions. The seminar and workshop were grounded in our developing relationship with PKU and were expanded to include key relationships and potential partnerships with two other peer social work schools in other parts of Asia, TISS in India, and Seoul National University in South Korea. A follow-up workshop was held in 2014 and another in June 2015 in Mumbai, India.

Further galvanizing our efforts is the Collaborative Exchange Program, launched in 2016, which establishes an endowed joint social work educational exchange program in partnership with PKU and Hong Kong Polytechnic University. Working together, the three universities seek to promote the development of graduate social work education and research in China; facilitate international collaborative graduate education and research among the participating universities; and improve the quality of social work education in China, promoting a rigorously professionalized, effective, and ethical social work workforce and service system. Initially, the Collaborative Exchange Program will establish a **Visiting Fellows Exchange Program** that will provide a platform for distinguished scholars to hold lectures and seminars, and to carry out intensive study to engage in meaningful cross-national and cross-university exchanges. The program also will host an **International Study Exchange Program** for master's and Ph.D. students that develops professional and academic leaders who further professionalize the social work field within China, and establish enduring institutional cross-national partnerships.

In addition to these developing relationships, the presence of the University of Chicago's Beijing Center and the recent opening of the University's Center in Delhi open exciting opportunities to provide continued support for ongoing cross-national exchanges, seminars, and conferences, including hosting students and scholars from China, India, the United States, and other countries for varying periods of time.

GUIDING PRINCIPLES OF THE SSA MASTER'S CURRICULUM

The SSA curriculum promotes social justice through its commitment to pluralism, rigorous inquiry, engaged interdisciplinary scholarship, integrative practice, critical thinking, and informed action. These curricular commitments prepare students to understand the complex contexts and power structures that maintain and reproduce inequality and injustice, and to take action to promote individual, social, and structural change.

1. Social Justice

SSA supports students to analyze the social, historical, political, economic, and organizational factors that reinforce inequity and injustice. Students and faculty consider their own and others' positionality within those structures, with an appreciation of how identities and affiliations may intersect to compound or mitigate privilege and oppression. We work to increase access, opportunity, and agency in order to dismantle systems of oppression and to help meet the basic needs of diverse individuals, families, and communities with compassion and humaneness.

2. Intellectual Pluralism

Intellectual pluralism is at the heart of SSA's teaching. The curriculum reflects the intellectual diversity of our faculty, who come from an array of academic disciplines and professions and represent a variety of political perspectives. This pluralism allows our students and faculty to appreciate multiple ways of knowing, to be critical of what counts as knowledge and research, and to be more inclusive of perspectives that have not traditionally been centered in social work curricula. Our intellectual pluralism also encourages ongoing interrogation of the concept of social justice, which is central to the mission of social work. It also provides us with the tools and flexibility to engage effectively with a broad range of individuals, communities, and social institutions.

3. Engaged Scholarship and Teaching

SSA faculty are committed to promoting social justice and social equality through engaged scholarship and education. Scholarship at SSA emerges from interactive engagement with practitioners, policy makers, and communities. SSA faculty members actively integrate their research into curricula and teaching. Students are educated to identify and analyze the causes, consequences of, and approaches to ameliorating human suffering and social injustice.

4. Integrative Practice

Our curriculum is built on the assumption that all social workers need to understand and act to mobilize change with and within individuals, families, communities, organizations, public institutions, and political and economic systems. Drawing upon and integrating field and classroom experiences, students will develop skills to practice across multiple levels. In addition, students are trained to use integrative frameworks that move beyond the micro-macro dichotomy.

5. Critical Thinking

Students learn to effectively question, assess, evaluate, and respond to assumptions, claims, and values, including those from social science and social work research. Students learn to consider a range of perspectives; carefully assess their assumptions, validity, and implications; and become skilled and insightful evaluators of their own thinking. This process includes reflection on how one's own affiliations and identities may lead to blind spots and biases. Students learn to integrate a critical sensibility into practice so as to make meaningful contributions to the profession, the client base, and to the analysis and resolution of social problems.

GOALS OF THE SCHOOL

Carrying out SSA's mission to enrich human life through scholarship, education, and service dedicated toward advancing a more socially just and humane society, we tackle the most intractable and costly of social problems by developing rigorous knowledge and rigorously trained professionals, as well as by leading and informing the field in ways that advance our society and the concerns of those who are most vulnerable. In keeping with its mission, the School's goals are:

- To educate competent and effective professionals able to apply clinical, analytical, and organizational knowledge and skills to solve social problems and relieve the distress of vulnerable individuals through ethical practice in a rapidly changing global environment. This requires a learning environment that models respect for diversity and lifelong learners who can think critically about the world around them.
- To produce scholarship that enhances our understanding of the nature and sources of problems of individuals, families, communities, and society and of effective means of preventing and intervening with those problems.
- And to use the School's resources to advance social justice and to serve its immediate community and the field of social welfare through the translation of knowledge into action. We aim to provide leadership both institutionally and through the efforts of individual faculty.

Graduates of the School of Social Service Administration should be able:

- To understand that the foundation of effective service lies in a grasp of the environment. Individual distress occurs in a social context involving the interaction of biological, psychological, familial, economic, community, and cultural factors.
- To understand that theories supported by empirical evidence serve as conceptual frameworks for examining individual distress, organizational functioning, community contexts, and social policies. These theories are drawn from multiple disciplines and become the foundation for a coherent framework from which to respond to human needs and promote social justice.
- To think critically and challenge the underlying assumptions, core values, conceptual frameworks, and evidence on which our professional knowledge is based.
- To engage in competent, ethical, and effective social work, clinical practice, or social administration.
- And to become effective leaders in the fields of social work and social welfare.



SSA RESEARCH CENTERS

CENTER FOR HEALTH ADMINISTRATION STUDIES

SSA's Center for Health Administration Studies (CHAS) (<http://chas.uchicago.edu>) has been a leader for over 75 years in research and education in health policy and services. CHAS engages an interdisciplinary and international group of health policy and services researchers on topics of health policy innovation and reform, health and social service integration, health access, cost and quality, behavioral health, global health, and preventive intervention. CHAS is well-known for expertise in health policy and service effectiveness for the disadvantaged.

An intentionally interdisciplinary center located in a graduate school of social work is a unique institutional form that both exploits and enriches the values and orientation of the University of Chicago. CHAS has explored new questions, identified knowledge gaps, sought to enhance the translation of research-to-practice, and identified opportunities for collaborations within and outside the University. Programs support faculty research, research dissemination and translation, student learning, and engage researchers, scholars, policy-makers, and practitioners.

The Center also supports an innovative health policy and research training program for graduate professional students at the University of Chicago, the Graduate Program in Health Administration and Policy (GPHAP) (<http://www.ssa.uchicago.edu/gphap>). GPHAP is unique among health administration programs in the United States. GPHAP allows students to earn either a Certificate in Health Administration and Policy or a Certificate in Health Administration and Policy with a Concentration in Global Health, while earning a degree in one of the participating graduate schools on campus: the Booth School of Business (<http://www.chicagobooth.edu>), the Harris School of Public Policy (<http://harrisschool.uchicago.edu>), the Law School (<http://www.law.uchicago.edu>), the Pritzker School of Medicine (<http://pritzker.uchicago.edu>), and the School of Social Service Administration (<http://www.ssa.uchicago.edu>).

The Center is housed at the University of Chicago School of Social Service Administration (SSA). CHAS moved to the University of Chicago in 1962, and celebrated its 50th anniversary in 2013.

CHAPIN HALL AT THE UNIVERSITY OF CHICAGO

SSA partners with **Chapin Hall at the University of Chicago** (<https://www.chapinhall.org>), an independent entity. Chapin Hall has, since its inception in 1985 as a research and policy center, focused on a mission of improving the well-being of children and youth, families, and their communities. This mission is achieved through policy research—by developing and testing new ideas, generating and analyzing information, and examining policies, programs, and practices across a wide range of service systems and organizations. Chapin Hall's researchers meet regularly with policy-makers, agency directors, philanthropic organizations, and community groups to assure that important findings are placed directly in the hands of those who can best use them.

A number of faculty members from the School of Social Service Administration are partners with Chapin Hall and direct research under its auspices. SSA doctoral and master's-level students form an integral part of many Chapin Hall research teams and are active participants in seminars and discussions. Please refer to the Chapin Hall website (<http://www.chapinhall.org>) for more information about the organization's research, publications, and conferences.

CHICAGO CENTER FOR YOUTH VIOLENCE PREVENTION (CCYVP)

Since 2005, with funding from the Centers for Disease Control and Prevention (CDC), researchers at the CCYVP (<https://voices.uchicago.edu/ccyvp>) have been committed to studying and preventing violence in Chicago communities. There is no simple or single answer to eliminating youth violence. The Center approaches the multifaceted problem of youth violence by providing programs targeted at children and families at different developmental ages and with youth at varying levels of associated risk and involvement. Center efforts are coordinated with the social systems that have the most direct influence on youth throughout development—families, schools, community agencies, and justice. Within each of the three core aims, the CCYVP is committed to training the next generation of youth violence prevention scholars, coordinating training and education activities across sites and academic disciplines. Professor and Dean of the University of Chicago School of Social Service Administration Deborah Gorman-Smith (<http://ssa.uchicago.edu/ssascholars/d-gsmith>) is the Principal Investigator and director of the Chicago Center for Youth Violence Prevention.

The primary aims of CCYVP are:

1. To understand the nature and causes of youth violence, bringing together a coalition of community, policy and academic partners.
2. To design and test prevention interventions, evaluating the process and impact of these interventions in high-risk, urban communities, and identifying the unique challenges and adaptations necessary for implementation in urban neighborhoods.

3. To partner with the community, providing training and technical assistance to build capacity for schools and community agencies to select, implement and evaluate evidence-based interventions. CCYVP also evaluates and informs current policy strategies aimed at reducing youth and other forms of violence, evaluates the most promising interventions within the community, and uses these data to inform policy and practice.

CRIME LAB

The UChicago Crime Lab (<http://urbanlabs.uchicago.edu/labs/crime>) seeks to improve our understanding of how to reduce crime and violence by helping government agencies and non-profit organizations develop innovative new approaches to reducing violence, and testing these new innovations using randomized controlled trials (RCTs). In 2011, the Crime Lab launched the Education Lab (<http://urbanlabs.uchicago.edu/labs/education>) to support RCTs specifically in the area of improving education outcomes, which, particularly in disadvantaged urban areas, are deeply connected to risk of violence involvement. In 2014, the Crime Lab announced the launch of Crime Lab New York (<http://urbanlabs.uchicago.edu/labs/crime-new-york>). Leading researchers will provide New York policy makers with rigorous and objective scientific evidence to help reduce crime, violence, and the costs of criminal justice in a new partnership with the City of New York. The Crime Lab began in April 2008 in partnership with the City of Chicago, and its work has been made possible by generous seed funding from the Joyce Foundation, the University of Chicago Office of the Provost, and SSA through the Center for Health Administration Studies (CHAS) and the Chicago Center for Youth Violence Prevention (CCYVP).

HEALTH LAB

The UChicago Health Lab (<http://urbanlabs.uchicago.edu/labs/health>) leverages rigorous research methods such as randomized controlled trials, large datasets, and partnerships with government agencies and nonprofits to test novel health care delivery models and improve public health outcomes for underserved populations in Chicago and beyond. Health Lab staff partner with civic and community leaders to generate evidence on what works to improve health outcomes for vulnerable individuals who struggle to navigate the healthcare system.

INTERDISCIPLINARY SCHOLAR NETWORKS

SSA launched the Interdisciplinary Scholar Network initiative to bring together scholars across disciplinary and professional lines and to generate innovative and more comprehensive knowledge aimed at addressing some of society's most intractable social problems. Two networks have been established:

- The Employment Instability, Family Well-being and Social Policy Network (<http://ssascholars.uchicago.edu/einet>) (EINet): This research network enhances the capacity of the field to study employment instability at the lower end of the labor market and develops and evaluates interventions aimed at reducing employment instability and its effects on children and families.
- The STI and HIV Intervention Network (<http://ssascholars.uchicago.edu/shine>) (SHINE): This network conducts research on the biological, behavioral, and structural factors that heighten vulnerability to sexually transmitted infections and HIV among vulnerable populations in the United States. SHINE develops and evaluates interventions to alleviate existing STI/HIV disparities.

INFORMATION AND APPLICATION

For further information and application materials, contact the Office of Admissions, The School of Social Service Administration, 969 East 60th Street, Chicago, IL 60637; telephone: (773) 702-1250 or by visiting the SSA website at <http://www.ssa.uchicago.edu>.



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