

**Integrated Studies 002:
Orders and Origins
University of Pennsylvania
Spring 2015**

Teaching Team Information

Political Science

Professor Rogers Smith (Suite 300, 3440 Market Street, Room 314; rogerss@sas.upenn.edu)
Office Hours: Thursday 9-11 (Suite 300, 3440 Market Street, Room 314)

Physics

Professor Vijay Balasubramanian (DRL 2N3A; vijay@physics.upenn.edu)
Office Hours: Tuesday 10:30-12 (DRL 2N3A)

TA: Pedro Ducos (pducos@sas.upenn.edu)
Office Hours: Wednesday 3-4, and Thursday 2-3 (DRL 1N2D)

Literature

Professor Emily Wilson (Cohen Hall 265; emilyw@sas.upenn.edu)
Office Hours: Thursday 3-4 (Cohen Hall 265)

Friday Seminars

Dr. Jean-Paul Cauvin (Cohen Hall 175; jcauvin@sas.upenn.edu)
Office Hours: Tuesday 1:30-2:30, Wednesday 2:30-3:30, and by appointment

Dr. Michelle M. Pinto (College Hall 306C; pintomi@sas.upenn.edu)
Office Hours: Tuesday 2-4, and by appointment

Dr. Julio R. Tuma (Cohen Hall 429; tuma@sas.upenn.edu)
Office Hours: Tuesday 11-12, Wednesday 2:30-3:30, and by appointment

Texts

Both texts are available at the Penn Book Center, 130 South 34th Street (just off Walnut Street), 215-222-7600. In addition to these texts, all Political Science readings and some Physics readings will be available on the Canvas course website.

- *Foundations of Modern Cosmology*, 2nd edition, John Hawley and Katherine Holcomb, Oxford University Press, 2005
- *Paradise Lost*, John Milton, edited by John Rumrich, William Kerrigan, and Stephen M. Fallon, Modern Library, 2007

Key Dates

Wednesday, January, 14: Introduction to “Orders and Origins” with full Teaching Team

Every Tuesday as indicated on Coursemap: Physics HW due at noon in class

Sunday, February 1: Literature Assignment #1 due to Canvas by 12 p.m. (noon)

Sunday, February 15: Political Science Assignment #1 due to Canvas by 12 p.m. (noon)

Monday, March 2: Friday Seminar Essay 1 due to Canvas by 10 a.m.

Thursday, March 5: Physics Midterm Exam

Sunday, March 22: Literature Assignment #2 due to Canvas by 12 p.m. (noon)

Thursday, April, 2: Political Science Assignment #2 due to Canvas by 11:59 p.m.

Wednesday, April 22: Friday Seminar Essay 2 due to Canvas by 10 a.m.

Monday, April 27: Constitution Group Activity

Tuesday, April 28: Physics Final Exam

Wednesday, April 29: Dramatic Rendition of *Paradise Lost* by students

Monday, May 4: Political Science Final Assignment due to Canvas by 11:59 p.m.

Thursday, May 7: Literature Final Exam, 9-11 a.m.

Assessment and Course Grade Breakdown

Each of the three streams and the Friday Seminar is worth one quarter of your final grade.

The grade breakdown for each stream is as follows:

Political Science:

Assignment #1: 25%

Assignment #2: 25%

Assignment #3: 50%

Physics:

Midterm Exam: 20%

Weekly Homework: 50% (on top 11 out of 13 problem sets)

Final Exam: 30%

Literature:

Assignment #1: 25%

Assignment #2: 25%

Final Exam: 50%

Friday Seminar:

Attendance and Participation: 20%

Integration Essay 1: 25%

Integration Essay 2: 30%

In-Seminar Oral Presentation: 25%

Friday Seminar Information

Please attend the seminar assigned to you by the Registrar:

301: 10-10:50 a.m., Arch 110, Tuma

302: 10-10:50 a.m., College 311F, Pinto

303: 11-11:50 a.m., Arch 110, Tuma

304: 11-11:50 a.m., Cohen 237, Cauvin

305: 12-12:50 a.m., College 311A, Pinto

306: 12-12:50 a.m., Cohen 237, Cauvin

Schedule of Topics and Readings

WEEK AND TOPIC	MONDAY POLITICAL SCIENCE Prof. Rogers Smith 3:30-5 p.m., Cohen Hall 402	TUESDAY PHYSICS Prof. Vijay Balasubramanian 12-1:30 p.m., Stiteler Hall B6	WEDNESDAY LITERATURE Prof. Emily Wilson 3:30-5 p.m., Cohen Hall 402	THURSDAY Integrative Session 12-1:30 p.m., Stiteler Hall B6	FRIDAY Seminars and Various Due Dates
WEEK 1a: JANUARY 14-16 Order and Disorder	NO CLASS	NO CLASS	Introduction to “Orders and Origins” with full Teaching Team	[Introductory Schedule] Professor Wilson: Introduction	
WEEK 1b: JANUARY 19-23 Order and Disorder	MLK DAY UNIVERSITY CLOSED	<i>The Ancient Universe</i> • Hawley & Holcomb (H&H) Ch.1, pp. 20 last paragraph; Ch. 2, pp.25-53 • Problem Set: Ch.1: #1 and 9; Ch.2: #4, 6, and 10	[Introductory Schedule] Professor Smith: <i>Introduction: Constitutionalism Ancient and Modern, This Week Mostly Ancient</i> • Aristotle’s <i>Politics</i> , Bk. III, Ch.I; Ch.VI-IX • Larry Arnhart, “The Darwinian Biology of Aristotle’s Political Animals,” <i>American Journal of Political Science</i> 38: 464- 485 (1994)	INTEGRATIVE SESSION Discussion Leader: Professor Wilson	Physics homework due 8 p.m.
WEEK 2: JANUARY 26-30 Order and Disorder	<i>Birth of Modern Constitutionalism:</i> • Francis Bacon, <i>Of the Wisdom of the Ancients</i> (1609), Ch. XXVI. “Prometheus: Or the State of Man,” 1-12 • John Locke, <i>Second Treatise of Government</i> , Chs. IX-XIII	<i>The Solar System and the Copernican Revolution</i> • H&H Ch. 3, pp.60-70 • Excerpts from Galileo, <i>The Starry Messenger</i> (1610): 48-50, 51-59, 83-84 (see syllabus) • Problem Set: Ch. 3: #3, 4, 5, 8, and 9	<i>Milton’s Paradise Lost Word choice</i> • Book 1	INTEGRATIVE SESSION Discussion Leader: Professor Balasubramanian	Physics homework due 8 p.m. SUNDAY, FEBRUARY 1: Literature Assignment #1 due to Canvas at 12 p.m. (noon)

WEEK AND TOPIC	MONDAY POLITICAL SCIENCE Prof. Rogers Smith 3:30-5 p.m., Cohen Hall 402	TUESDAY PHYSICS Prof. Vijay Balasubramanian 12-1:30 p.m., Stiteler Hall B6	WEDNESDAY LITERATURE Prof. Emily Wilson 3:30-5 p.m., Cohen Hall 402	THURSDAY Integrative Session 12-1:30 p.m., Stiteler Hall B6	FRIDAY Seminars and Various Due Dates
WEEK 3: FEBRUARY 2-6 Order and Disorder	<i>The American Constitution: A Machine that Runs by Itself?</i> • The Declaration of Independence • The Constitution of 1787 • <i>Federalist Papers</i> , #10, #51, #78	<i>Modern Physics</i> • H&H Ch. 4, pp.90-110 • Problem Set: Ch.4: #2, 3, 4, 5, and 6	<i>Milton's Paradise Lost</i> <i>Word choice</i> • Book 2	INTEGRATIVE SESSION Discussion Leader: Professor Smith	Physics homework due 8 p.m.
WEEK 4: FEBRUARY 9-13 Dualities	<i>The English Unwritten, Mixed Constitution</i> • William L. Martin, "The British Constitution" • Tony Prosser, "Understanding the British Constitution"	<i>More Modern Physics</i> • H&H Ch. 4 (finish if you haven't done so already) • Borges, "The Garden of Forking Paths" (for Thursday Discussion) • Problem Set: Ch.4: #7, 9, and 10 • In two short paragraphs, describe the "Copenhagen" and "Many-Worlds" interpretations of quantum mechanics. You can use the internet, class handouts and any other information	<i>Milton's Paradise Lost</i> <i>Point of view</i> • Book 3	INTEGRATIVE SESSION Discussion Leader: Professor Wilson	SUNDAY, FEBRUARY 15: Political Science Assignment #1 due to Canvas by 12 p.m. (noon)
WEEK 5: FEBRUARY 16-20 Perspectives	<i>True Modern Republicanism? French Constitution</i> • French Constitution of 1791 • French Constitution of 1795 (excerpts) • Martin A. Rogoff, "The Constitution in France"	<i>The Life Cycle of Stars</i> • H&H Ch. 5, pp.120-123 and pp.126-146 • Problem Set: Ch.5: #4, 5, 6, 8, and 9 • Physics homework due at noon in class	<i>Milton's Paradise Lost</i> <i>Point of view</i> • Book 4	INTEGRATIVE SESSION Discussion Leader: Professor Balasubramanian	

WEEK AND TOPIC	MONDAY POLITICAL SCIENCE Prof. Rogers Smith 3:30-5 p.m., Cohen Hall 402	TUESDAY PHYSICS Prof. Vijay Balasubramanian 12-1:30 p.m., Stiteler Hall B6	WEDNESDAY LITERATURE Prof. Emily Wilson 3:30-5 p.m., Cohen Hall 402	THURSDAY Integrative Session 12-1:30 p.m., Stiteler Hall B6	FRIDAY Seminars and Various Due Dates
WEEK 6: FEBRUARY 23-27 Order and Relativity	<i>Marxist Constitutionalism:</i> <ul style="list-style-type: none"> • Karl Marx and Friedrich Engels, <i>Manifesto of the Communist Party</i> (1848), 1-22. • Russian Constitutions of 1918 with Constitution of the USSR, 1924 (excerpts) 	<i>The Relativity of Space and Time</i> <ul style="list-style-type: none"> • H&H Ch. 6, pp.159-178 • Wigner: “The Unreasonable Effectiveness of Mathematics in the Natural Sciences” (for Thursday’s discussion) • Problem Set: Ch. 6: #3, 7, 8, 9, and 10 • Physics homework due at noon in class 	<i>Milton’s Paradise Lost</i> <ul style="list-style-type: none"> • Book 5 	INTEGRATIVE SESSION Discussion Leader: Professor Balasubramanian	
WEEK 7: MARCH 2-6 Multiplicities of Time	<i>Progressive/New Deal American Constitutionalism</i> <ul style="list-style-type: none"> • Lester Ward, “The Efficacy of Effort,” <i>Applied Sociology: A Treatise on the Conscious Improvement of Society by Society</i>, 13-38. • Rexford G. Tugwell, “The Principle of Planning and the Institution of Laissez-Faire,” 1191-1201. • 1935 Social Security Act (excerpts) Friday Seminar Essay 1 due to Canvas by 10 a.m.	<i>More Relativity</i> <ul style="list-style-type: none"> • H&H Ch. 7, pp.181-208 • Problem Set: Ch.7: #3, 6, 7, 8, and 10 • Physics homework due at noon in class 	<i>Milton’s Paradise Lost Meter and sound</i> <ul style="list-style-type: none"> • Book 6 	INTEGRATIVE SESSION Physics Midterm Exam (Open Book)	
MARCH 9-13 SPRING BREAK					

WEEK AND TOPIC	MONDAY POLITICAL SCIENCE Prof. Rogers Smith 3:30-5 p.m., Cohen Hall 402	TUESDAY PHYSICS Prof. Vijay Balasubramanian 12-1:30 p.m., Stiteler Hall B6	WEDNESDAY LITERATURE Prof. Emily Wilson 3:30-5 p.m., Cohen Hall 402	THURSDAY Integrative Session 12-1:30 p.m., Stiteler Hall B6	FRIDAY Seminars and Various Due Dates
WEEK 8: MARCH 16-20 Pluralism and Organization	<i>UN Charter and Global Constitutionalism</i> • Charter of the United Nations • Robert Goodin, “World Government is Here!”	<i>How Matter Warps Space and Time</i> • H&H Ch.8, pp.213-236 • Problem Set: Ch.8: #2, 5, 6, 9, and 10 • Physics homework due at noon in class	<i>Milton’s Paradise Lost Metaphor and simile</i> • Book 7	INTEGRATIVE SESSION Discussion Leader: Professor Smith	SUNDAY, MARCH 22: Literature Assignment #2 due to Canvas at 12 p.m. (noon)
WEEK 9: MARCH 23-27 Controversial Origins	<i>Post-Colonial Constitutionalism in Diverse Societies: India</i> • India Constitution (excerpts) • Alisha Dhingra, “Indian Constitutionalism: A Case of Transformative Constitutionalism”	☪ <i>THE BIG BANG</i> ☪ <i>The Universe is Exploding (I)</i> • H&H Ch.10, pp.277-308 • Problem Set: Ch.10: #3, 4, 7, 10, and 11 • Physics homework due at noon in class	<i>Milton’s Paradise Lost Metaphor and simile</i> • Book 8	INTEGRATIVE SESSION Discussion Leader: Professor Wilson	
WEEK 10: MARCH 30- APRIL 3 Rethinking Origins and Challenges of the Unknown	<i>Human Dignity and the Constitution of South Africa</i> • South Africa Constitution (excerpts) • D. M. Davis, “Constitutional Borrowing: The South Africa Experience”	<i>The Universe is Exploding (II)</i> • H&H Ch.11, pp.313-332 • Problem Set: Ch.11: #2, 3, 5, 6, and 8 • Physics homework due at noon in class	<i>Milton’s Paradise Lost Allusion</i> • Book 9	[Physics Session] <i>Describing the Exploding Universe</i> • H&H Ch. 14, pp.407-415 Political Science Assignment #2 due to Canvas by 11:59 p.m.	

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WEEK 11: APRIL 6-10 Rethinking Origins and Challenges of the Unknown	<i>Environmental and Indigenous Worldviews: the Ecuador Constitution</i> • Ecuador Constitution of 2008 • Sarah Radcliffe, “Development for a Post-Neoliberal Era?”	<i>History of the Universe from the Big Bang to Now</i> • H&H Ch.14, pp.416-430; Ch.12, pp.337-344 • Problem Set: Ch.14: #3, 4, 5, and 6 • Physics homework due at noon in class	<i>Milton’s Paradise Lost</i> • Book 10	INTEGRATIVE SESSION Discussion Leader: Professor Wilson	
WEEK 12: APRIL 13-17 Challenges of the Unknown	<i>Divine Law and the Iranian Constitution</i> • Iran Constitution, 1979 (abridged) • Said Saffari, “The Legitimation of the Clergy’s Right to Rule in the Constitution of 1979”	<i>Physics Guest Lecture: Dr. Ann Hermundstad</i> <i>Physical Models of Living Systems: Deciphering the Information that Your Eye Tells Your Brain</i> • H&H Ch.12, pp.344-374 • Problem Set: Ch.12: #2, 8, 9, 10, and 12. • Physics homework due at noon in class	<i>Milton’s Paradise Lost</i> • Book 11	INTEGRATIVE SESSION Discussion Leader: Professor Smith	
WEEK 13: APRIL 20-24 Stories of Orders and Origins	<i>The Future of Constitutionalism in a World of Clashing Cosmologies</i> • Thomas Cottier and Maya Hertig, “The Prospects of 21 st Century Constitutionalism”	<i>History of the Universe from the Big Bang to Now</i> • H&H Ch.15, pp.435-455 • Mymosh the Self-Begotten by Lem • Physics homework due at noon in class	<i>Milton’s Paradise Lost Syntax and word order</i> • Book 12 Friday Seminar Essay 2 due to Canvas by 10 a.m.	INTEGRATIVE SESSION Discussion Leader: Professor Balasubramanian	SATURDAY, APRIL 25: Constitutional Group Activity Memo due via email to your group by 12 p.m. (noon)

WEEK AND TOPIC	MONDAY POLITICAL SCIENCE Prof. Rogers Smith 3:30-5 p.m., Cohen Hall 402	TUESDAY PHYSICS Prof. Vijay Balasubramanian 12-1:30 p.m., Stiteler Hall B6	WEDNESDAY LITERATURE Prof. Emily Wilson 3:30-5 p.m., Cohen Hall 402	THURSDAY Integrative Session 12-1:30 p.m., Stiteler Hall B6	FRIDAY Seminars and Various Due Dates
WEEK 14: APRIL 27-29	Constitutional Group Activity	Physics Final Exam (Open Book)	<i>Milton's Paradise Lost</i> Dramatic Rendition of <i>Paradise Lost</i> by students	NO CLASS	NO CLASS

FINAL EXAM WEEK:

May 4, 11:59 p.m. Political Science Final Assignment due (Canvas)

May 7, 9-11 a.m. Literature Final Exam (Stiteler Hall B6)