

Annual Report

Center for Teaching and Learning
Office of the Provost

2017-2018



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Letter from the Provost



John H. Coatsworth
Provost

Dear Colleagues:

The 2017-18 Annual Report of the Center for Teaching and Learning describes the programs and services provided during the year to the Columbia University teaching community. Faculty, graduate students, postdocs, and staff have affirmed, by their strong participation in CTL's programs and services, the importance of a University-wide center that incorporates insights from the learning sciences to enhance the experiences of our students. This report also restates the CTL's mission and philosophy, which was developed in close partnership with faculty and other University stakeholders.

The report highlights the work of Columbia's faculty and instructors in their efforts to achieve successful learning outcomes in the classroom while leaning on the expertise and support of the CTL staff. You will find examples of teachers who are transforming classrooms at Columbia, strengthening their pedagogy, and innovating at the intersection of education and technology. You will also see examples of graduate students and postdocs who are preparing for careers as educators and scholars and who are guided by the CTL's professional development programs for preceptors, teaching fellows, teaching assistants, and readers.

We look forward to continuing to support the Columbia teaching community as we develop new and exciting ways to enhance teaching and learning at the University to the benefit of our students on campus and around the world.

Sincerely,

John H. Coatsworth
Provost

Letter from the Vice Provost



Soulaymane Kachani
Vice Provost for Teaching
and Learning

Dear Colleagues:

In July 2017, Provost Coatsworth and I welcomed Catherine Ross as Executive Director of the Center for Teaching and Learning (CTL). In her first year at the CTL, Catherine began to work closely with Columbia's schools and colleges, and faculty leaders, to determine priorities for the CTL and develop new initiatives. We also appointed an advisory board for the Center, which has faculty and student representation from around the University. The CTL released the *Guide for Inclusive Teaching at Columbia* as well as several workshops, seminars, and intensives to share practical, research-based inclusive teaching strategies with Columbia faculty and instructors.

The Office of the Provost facilitated several initiatives and events aimed at strengthening teaching and learning collaborations at Columbia. In fall 2017, we relaunched the Provost's Conversations on Online Learning (PCoOL), a series of talks by leading experts on the future of education, specifically online learning.

This year marked the Provost's fifth Request for Proposals (RFP) for Hybrid Learning Course Redesign and Delivery, and its third RFP for Massive Open Online Courses. Since the first RFP was introduced in 2014, over 100 faculty members have received support for their teaching innovations from the CTL. The Office of the Provost also awarded 14 new grants for faculty through two new funding opportunities: the Large-Scale Teaching and Learning Grants to support teaching initiatives and at the school, department, or program level, and the Start Small! Mini-Grants for faculty experimenting with a new pedagogical strategy or tool.

Many of these faculty awardees were on hand to share insights at the annual Celebration of Teaching and Learning Symposium on February 22. The Office of the Provost welcomed Columbia faculty, students, and staff to Low Library to celebrate the innovative efforts of faculty and graduate students in transforming their courses and pedagogies. This year's keynote speaker was Cathy N. Davidson, educator and author of *The New Education: How to Revolutionize the University to Prepare Students for a World In Flux*.

I hope that the activities highlighted in this report will encourage you to meet our talented staff at the CTL, explore new ideas for your own teaching, and make new connections with a community of inspired teachers and learners at Columbia.

Sincerely,

Soulaymane Kachani
Vice Provost for Teaching and Learning

Letter from the CTL Executive Director —



Catherine Ross
Executive Director of the Center
for Teaching and Learning

Dear Colleagues:

The Center for Teaching and Learning (CTL) collaborates with faculty, departments, and schools across Columbia's campuses to achieve the best teaching and learning experiences for faculty and their students. In this spirit, the CTL kicked off the 2017-2018 academic year with a new theme: "Empowered Teaching, Empowered Learning." Across its programs and events, the CTL explored new teaching approaches and methods for helping students take ownership of their learning, beginning with an invited panel of Columbia graduate and undergraduate students to share their most memorable classroom experiences at the CTL's Teaching Orientation for New Faculty.

To invite more student voices into the teaching and learning conversation, the CTL began its first forays into engaging Columbia students in a conversation about learning. At the annual Celebration of Teaching and Learning Symposium on February 22, the CTL set up a booth on College Walk to engage with students, asking them: How do you learn best? The collected student responses were displayed for Symposium participants and the CTL staff also hosted a world cafe discussion focused around Symposium Keynote Speaker Cathy N. Davidson's strategies for engaging students in their learning.

This year the CTL focused on exploring new partnerships with departments and schools across Columbia and ramped up efforts to provide faculty with customized programs and services. Our staff received many requests from department chairs and program directors for our new on-demand "Workshops To Go" service. These workshops provide faculty with tailored resources, strategies, and practices they can implement right away. The Faculty Programs and Services group also created more targeted support for faculty by hiring two additional staff who specialize in science and engineering.

Furthering our goal of meeting instructors where they teach, our staff held a range of programs for faculty at the Columbia University Irving Medical Center (CUIMC), from day-long summer institutes to one-to-two hour workshops and book discussion groups. The CTL also offered the Evidence-Based Teaching Practices in Science and Engineering Seminar for CUIMC graduate students and postdocs looking to advance their teaching through engagement with the research on teaching and learning.

These are just a few highlights of the work we do at the CTL. In the next academic year, we look forward to partnering with you to continue and deepen the campus-wide conversation around teaching and learning at Columbia.

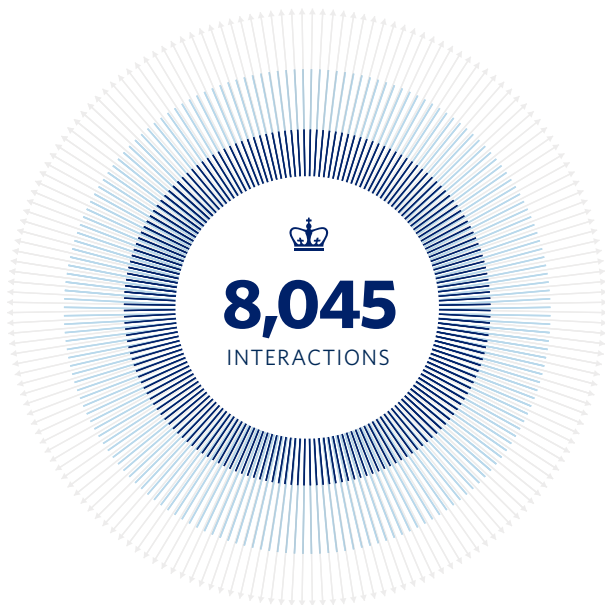
Sincerely,

Catherine Ross
Executive Director

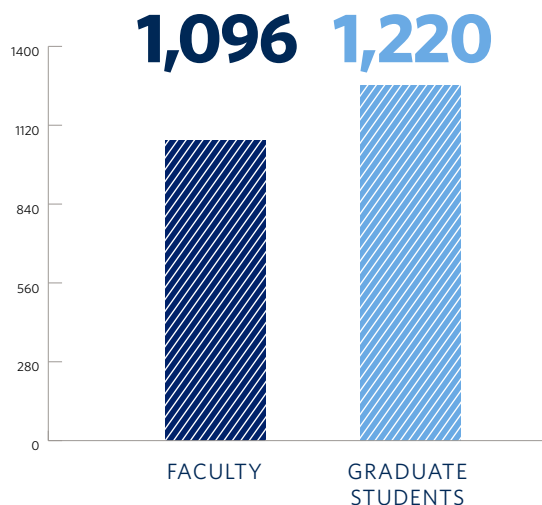
Annual Highlights

Interactions

with Columbia-affiliated individuals



Total Served by CTL



66

Graduate student fellows and teaching consultants



296

Interactions with external visitors

Office of the Provost Funded



30

Teaching and learning projects



12

Course redesigns

Our Impact on Campus and Beyond



230

Workshops for Columbia faculty and graduate student instructors



34

Workshops customized for departments and schools



24

CTL staff served on university and external committees



14

Number of conferences and events attended by CTL Staff

Online Presence



2,465

edX Learners that completed a Massive Open Online Course (MOOC)



2,877,282

Minutes watched on ColumbiaLearn YouTube Channel

Accomplishments

Guide for Inclusive Teaching at Columbia

URL: ctl.columbia.edu/resources/inclusive-teaching-guide/

This year the CTL authored and released the Guide for Inclusive Teaching at Columbia. The guide offers five principles for inclusive teaching derived from research and evidence-based practices, as well as practical, accessible, and usable strategies that instructors can use immediately. In addition to the online resource, the CTL released a print version of the guide to distribute to campus partners, department chairs, and participants in the CTL's programs on inclusive teaching.

As a further enhancement of this resource, the CTL developed several workshops, seminars, and intensives for instructors to reflect on their own approaches to

inclusive teaching and learning. These programs were among some of the most heavily attended programs of the year and the top "Workshop to Go" session requested by department chairs and program directors.

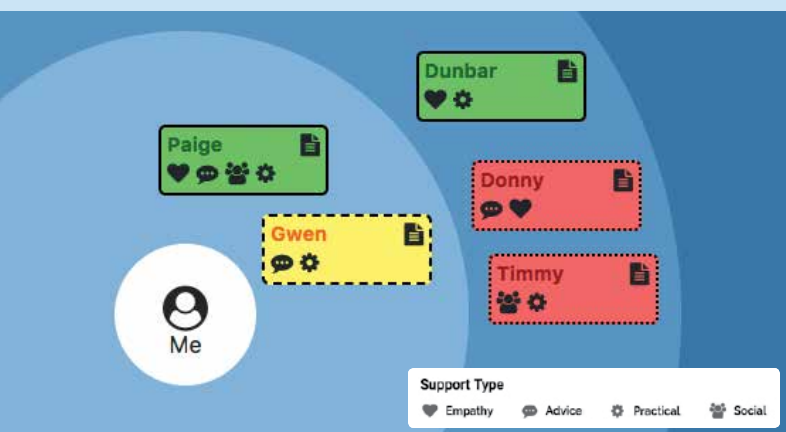
- Online guide accessed over 4,571 times in 55 countries since August 2017
- Over 200 copies distributed to Columbia instructors
- CTL staff facilitated 24 workshops and events focused on inclusive teaching
- Programs attended by over 404 faculty and graduate student participants

Educational Media and Software Development

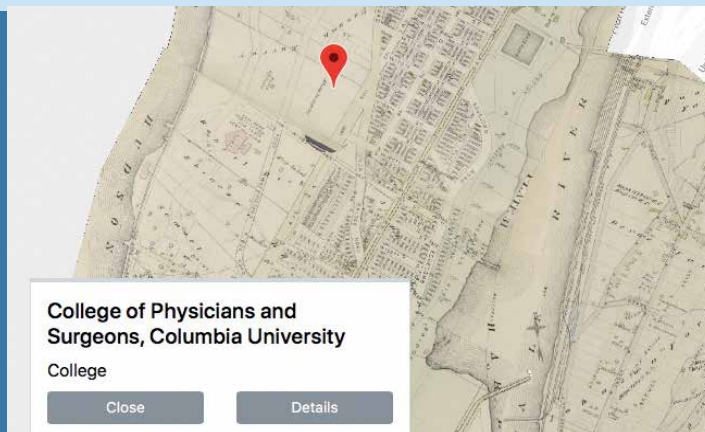
Projects developed by the CTL in collaboration with Columbia faculty and instructors this year featured unique media productions and software development that were incorporated into learning activities in Columbia classrooms and beyond. As a result of these collaborations, classrooms were transformed by engaging learning experiences.

Highlights from this year's projects:

- Students at the School of Social Work used a web-based mapping tool developed by the CTL to identify and graphically illustrate the informal social supports in a person's network. This tool can help clients with life skills such as gaining employment or housing, or getting into recovery.
- Students at Teachers College used a new online tool developed by the CTL to map sites of formal and informal teaching and learning in New York City neighborhoods across time periods, and to locate archival collections housed in libraries and repositories.



The Social Support Network Map shows the influence of various relationships mapped onto an individual's social circles. Relationships are also given traits or "support types."



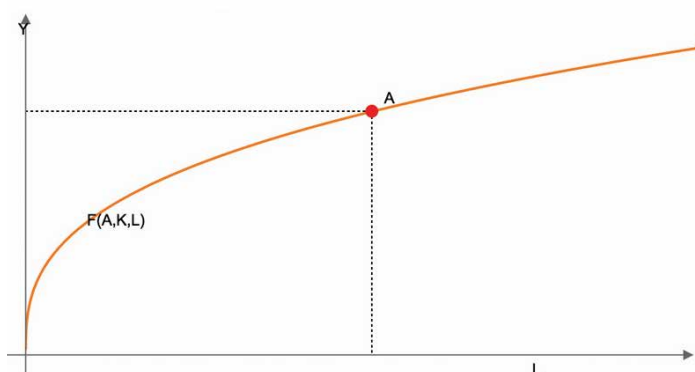
The Writ Large NYC website displays the 1885 map layer for Manhattan and several teaching and learning locations across the city. Users select the icons to reveal details for a specific location.

- Students from the School of International and Public Affairs received tailored feedback and achieved deeper learning based on their interactions with economic graphing models developed by the CTL.

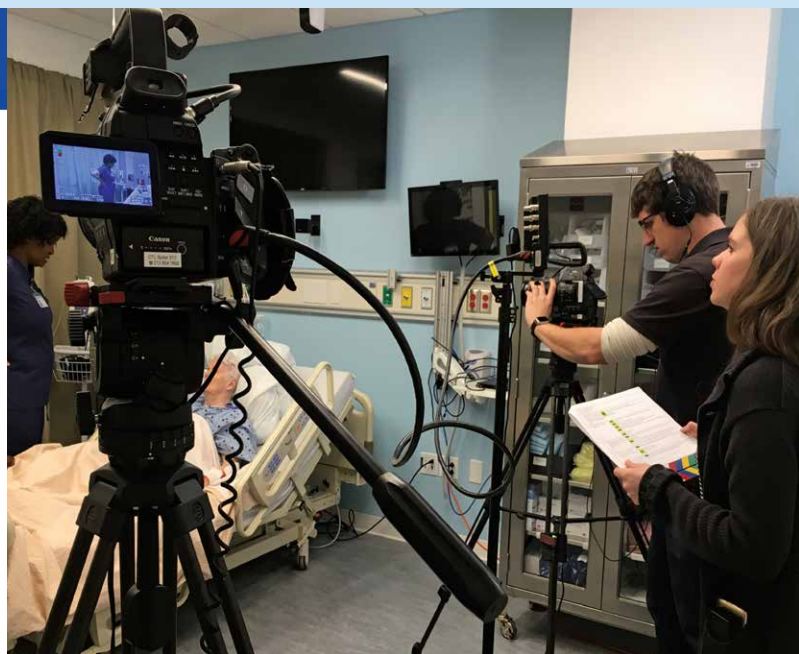
- Students at the School of Nursing bridged concepts between course lectures and live simulations through the use of virtual simulations produced by the CTL. The simulations paused at key moments during class and required students to interact with the video.

 EconPractice

Cobb–Douglas



Interactive economic graphing model.



The CTL Media Production team shoots a staged interaction between a nurse and a patient.

Expanding Our Support

The CTL's staff of teaching consultants, learning designers, software developers, and media producers have backgrounds in a variety of disciplines, as well as experiences teaching and collaborating with academic administrators to advance teaching and learning at higher education institutions. This year we were pleased to welcome:

Catherine Ross

Executive Director, Center for Teaching and Learning

John Foo

Assistant Director, Science and Engineering Faculty Programs and Services

Chandani Patel

Assistant Director, Graduate Student Programs and Services

Mike Tarnow

Learning Designer, Science and Engineering Faculty Programs and Services

Melissa Wright

Associate Director, Assessment and Evaluation

Shashi Yellambhatla

Associate Director, Software Development and Project Management

New Programming for Graduate Students

Graduate students were invited to apply for two new seminar programs this year. These programs provided an opportunity for participants to engage in a supportive community of practice through a series of connected modules, workshops, and discussion groups on teaching and learning topics.

- 134 graduate student participants in the Evidence-Based Teaching in Science and Engineering Seminar
- 24 graduate student participants in the Inclusive Teaching Seminar.

The CTL's Graduate Students Programs and Services team developed a suite of workshops as part of its "Approaching the Job Market" series in response to a high demand from previous years. Workshops focused on the refinement of teaching portfolios, teaching statements, diversity statements, syllabi, and public speaking and presentation skills.

- 8 "Approaching the Job Market" workshops offered for graduate students
- 194 graduate student participants in workshop series



Chandani Patel, Assistant Director of Graduate Student Programs and Services, facilitates a session of the Inclusive Teaching Seminar.

Engaging Columbia University Irving Medical Center (CUIMC) Leadership and Faculty

This year the CTL collaborated with leadership and faculty in CUIMC schools and programs to support curricular planning and faculty development initiatives that aim to impact learning across the curriculum and in individual classrooms.

Highlights from this year's partnerships:

- Working with the Dean's Office in the Mailman School of Public Health to provide support for teaching and learning in the Mailman Core Curriculum, which reaches over 400 students each year. The CTL partnered with faculty and administrators in the school to explore curricular needs and design faculty development opportunities including individual and small-group consultations, workshop series, and institutes.
- Supporting several faculty in the Mailman School of Public Health who were awarded funding through the Office of the Provost's Start Small! Mini-Grants, Large-Scale Teaching and Learning Grants, and the Hybrid Learning Course Redesign and Delivery Grants.

The CTL also leased a new space on the Medical Center campus to support the growth of programming and events for CUIMC instructors. The flexible classroom space is located on the fourth floor of the 168th Street Armory—in the same building as the CTL's CUIMC office. In this new facility, the CTL offered 16 new programs attended by 86 faculty and 46 graduate students and postdocs from the four CUIMC schools and affiliated programs.



CUIMC faculty participants take their seats in the new event space for a CTL workshop.

Support for Faculty

The CTL supports the professional development of Columbia faculty. CTL programs and services are grounded in teaching and learning scholarship, allowing faculty to explore, experiment, and reflect on their teaching practice. Faculty are introduced to innovative pedagogies and instructional technologies for integration into their classroom. The CTL encourages a learner-centered approach to teaching Columbia students and models and promotes teaching practices that cultivate inclusive and equitable learning environments. This section highlights the range of customized programs and services offered to Columbia faculty.

3,398 interactions with Columbia faculty
2,502 services provided to Columbia faculty
896 faculty participants at CTL programs and events

"My advice to professors who are considering introducing active learning into their classroom is don't be afraid. Seek out advice. Go and watch other professors who are using it in their classroom so you can see it in action. Sometimes it's hard to imagine what it's going to look like until you've seen it. Just be brave, go for it."

— **Mary Ann Price**, *Lecturer in the Discipline*
Department of Biological Sciences



Mary Ann Price (Department of Biological Sciences) helps her students apply concepts they learned in class to real-world situations through the use of case studies. (Read Price's Faculty Spotlight feature at bit.ly/pricespotlight)

Programs

UNIVERSITY-WIDE PROGRAMS

The CTL offers professional development programs and events to connect Columbia faculty and instructors to effective teaching approaches, resources, and instructional technologies.

Seminars engage faculty in a supportive community of practice through a series of connected modules, workshops, and discussion groups on teaching and learning topics, which are typically held over one semester.

Institutes provide an immersive setting for faculty to develop new teaching approaches and skills with hands-on guidance from CTL staff over a period of several days.

Intensives are an option for faculty who wish to take a deeper dive into topics but may not be able to commit to a multi-day institute.

Teaching Orientations introduce faculty to teaching at Columbia and offer practical, evidence-based strategies they can implement on the first day of class.

Workshops and Events allow faculty to drop in to the CTL for 1-2 hours to explore timely topics related to teaching, learning, and instructional technologies.

HIGHLIGHTS OF AY 2017-2018

Seminar Programs

This year the following seminar programs were offered to faculty.

Reflective Teaching Seminar (Online)

The Reflective Teaching Seminar provided an opportunity for faculty and staff to reflect on their teaching experiences and commit to improving student learning through their teaching. The program was offered in an online format for the first time to allow more flexibility for participants who, in the past, were not able to make the multiple face-to-face commitments. The new version occurred in an online environment with two cohort gatherings.

After an in-person kick-off meeting, participants completed six modules online, which included readings, assignments, threaded discussion posts, and occasional group work and/or peer review. Each participant received individualized

feedback from a CTL facilitator on each of their module activities, which culminated in the creation of a Reflective Teaching Portfolio. At the concluding celebration, participants presented takeaways from their portfolio.

Digital Literacy for Instructional Practices Seminar

The CTL collaborated with partners at Columbia Libraries and the Graduate School of Journalism to offer the Digital Literacy for Instructional Practices Seminar to a cohort of faculty, postdocs, graduate students, and staff. The seminar provided a framework for faculty and instructors to explore effective teaching practices for acquiring digital skills.

The seminar explored topics such as data visualization, interpretation literacies, and instructional considerations for makerspaces. Participants used materials from the Digital Literacy Competency Calculator project (ccnmtl.github.io/digital-literacy), produced as part of the first seminar offered in Spring 2017. This year's cohort produced new, publicly available digital literacy teaching resources, including a sample rubric based on the Association of College and Research Libraries Information Literacy Framework.

Institutes and Intensives

The CTL offered the following institutes and intensives for faculty this year.

Active Learning Institute

Faculty transformed their courses into environments for participatory learning by exploring and applying research-based practices to develop active, learner-centered course units. This year's iteration of the annual institute

69 faculty participants in CTL seminars

Here's what they said . . .

"The most valuable parts of the [Reflective Teaching Seminar] for me were the eye-opening readings, and the practical assignments, allowing me to apply the concepts being taught in a real-time manner to actual courses I am teaching. I felt like I finally had permission, based on what I had learned, to put more of the responsibility of learning on the learners themselves, seeing them as partners in the process. I will now be far more creative about my approach to teaching, and will be more thoughtful about what learning outcomes are a priority, so I can make the best use of my time with learners."

— **Allison Lee**, Assistant Professor of Anesthesiology
Columbia University Irving Medical Center

"Ensuring the full participation of all students in the classroom is incredibly important and an ongoing and continuous challenge for all teachers. The Reflective Teaching Seminar provided tools for addressing that challenge, particularly with respect to varying in-class exercises and finding a wide range of activities to engage students in learning in an inclusive manner."

— **Benjamin Hoffman**, Associate Research Scholar
in the Faculty of Law; Lecturer in Law
School of Law



Catherine Ross, Executive Director of the CTL, facilitates a session for faculty challenging them to reflect on widely held beliefs about teaching.



Deborah Mowshowitz (Department of Biological Sciences) and **David Helfand** (Department of Astronomy) share "small changes" they made to their teaching.



52 faculty participants in CTL institutes and intensives

Here's what they said . . .

"The Intensive's drafting and revision activities forced me to articulate my goals for my students in more specific and achievable terms. The Intensive also helped me see my learning objectives as a fully integrated part of my day-to-day classroom teaching . . . For me, the Intensive's efficacy stemmed from not only the expertly facilitated activities, but also the opportunity to work closely with colleagues across different disciplines. My peer review partner shared ideas and experiences based on her work in the social sciences that really expanded my vision of what a small, seminar-style writing class can look like."

— **Vanessa Guida**, *Lecturer in Discipline*
Department of English and Comparative Literature



Faculty get a jump start on course planning for the fall semester at the Course Design Essentials intensive workshop.

included an online module to create explicit learning goals, an introductory session on inclusive teaching as a fundamental aspect of active learning, and a reimagined instructional technologies learning lab.

Course Design Essentials Intensive

Faculty learned strategies for planning and designing their course. Participants came away with resource materials needed to create learner-centered course materials.

Hybrid Learning Course Redesign (RFP) Intensive

Faculty received guidance on designing a hybrid course and preparing proposals for the Provost's Hybrid Learning Course Redesign and Delivery grant program.

Inclusive Teaching Intensive: Course Design to Include All Students

Faculty were challenged to rethink their course design from the framework of equity and inclusion. Participants learned how making changes to their syllabi, assessment strategies, and classroom activities can help foster an inclusive course climate for all students.

Teaching Orientations

The CTL held orientation sessions for faculty on the Morningside and Columbia University Irving Medical Center (CUIMC) campuses in late August 2017. During the opening panel, participants heard from faculty colleagues about what they wish they had known on their first day. CTL facilitators led a session introducing participants to the research and high-impact strategies behind cultivating a learner-centered teaching culture. Participants also engaged with learners themselves as a panel of Columbia students shared their most memorable classroom experiences. At the end of the day, participants gathered with their colleagues for wine, cheese, and peer mentoring. They were also invited to attend drop-in syllabus review consultations prior to the start of the semester.

Workshops and Events

The CTL offered the following workshops and events for faculty this year.

FALL 2017 AND SPRING 2018

Inclusive Teaching:

Small Changes to Maximize Equity in the Classroom

Faculty learned inclusive teaching strategies they can implement immediately to create a more equitable classroom space to empower student learning, including how to foster productive student-student interactions, set discussion guidelines, and collect feedback on course climate.

Introduction to CourseWorks (Canvas)

Faculty learned the basic features and functionality of the CourseWorks (Canvas) course management system, including how to migrate their content from CourseWorks (Sakai); navigate Canvas; manage syllabus and course materials; use quizzing tools; and utilize communication features in the system.

FALL 2017

Dead Ideas in Teaching and Learning: A Reflection on Our Beliefs and Practices

Faculty participated in a lively discussion of three major “dead ideas” in teaching and learning—beliefs about teaching that are so widely shared that they are assumed to be true—that may be impacting their work.

Faculty Article Discussion: “Small Teaching” Practices You Can Implement Tomorrow

A small group of faculty read a short article from James Lang, author of *Small Teaching: Everyday Lessons from the Science of Learning*, and gathered to discuss the advantages of small teaching and how to integrate these practices into any classroom.

Faculty Book Discussion Group: *Small Teaching: Everyday Lessons from the Science of Learning* by James Lang

A small group of faculty gathered to discuss James Lang’s book *Small Teaching: Everyday Lessons from the Science of Learning*. In *Small Teaching*, Lang distills evidence-based practices that can be implemented in any teaching context and courses of any discipline. Lang participated via videoconference during the book discussion.

Leveraging Open Source Principles and Resources for Teaching and Learning in STEM

In this two-session workshop designed and facilitated by Columbia faculty Kyle Mandli (Department of Applied Physics and Applied Mathematics) and Andreas Mueller (Department of Computer Science), participants focused on how these principles may be applied in the context of teaching and learning.

Pedometers and Pedagogy

In this series, faculty joined Executive Director Catherine Ross and other CTL staff on walks to share ideas and questions about teaching at Columbia while reaping the benefits of greater productivity and creativity from a walk outdoors.

Small Teaching Changes, Big Impact: Science Faculty Report on Their Practices

The CTL hosted two events featuring Columbia science faculty sharing the small changes they made to their teaching and the big impact they had on their students’ learning. Faculty presenters included Alice Heicklen (Department of Biological Sciences), Ivana Hughes (Department of Chemistry), Deborah Mowshowitz (Department of Biological Sciences), and David Helfand (Department of Astronomy).

565 faculty participants in CTL workshops and events

Slow Teaching, Deep Learning: Contemplative Practices for Faculty and Instructors

Faculty experienced two contemplative practices and reflected on how they might incorporate such practices into their teaching.

Team-Based Learning 101: Group Work that Works

Faculty learned strategies for forming effective student teams, empowering students to take ownership of their team’s success, and facilitating peer review methods.

SPRING 2018

Faculty Book Discussion Group: *Teach Students How to Learn* by Sandra McGuire

A small group of faculty discussed the book *Teach Students How to Learn: Strategies You Can Incorporate Into Any Course to Improve Student Metacognition, Study Skills, and Motivation* by Sandra McGuire. Faculty reflected on current practices to support learning and how they might integrate practical strategies from the book to boost motivation and learning in their courses.

Learning through Discussion: Three Steps to Effective Facilitation

Faculty explored a three-step process to ensure that students understand the why and how of discussion, and leave class with clear takeaways.



Amanda Irvin, Director of Faculty Programs and Services, leads a session on learner-centered teaching during orientation.

15 completed Workshops To Go and other customized workshops

147 faculty participants in Workshops To Go and other customized workshops

Here's what participants said . . .

"The opportunity to interact with and learn about teaching across Columbia's many schools was one of the most valuable aspects of the ["Learning Through Discussion"] workshop. It's rare that we have interdisciplinary learning outside of the specific course/research topics that we may be focused on. I especially enjoyed hearing about specific classroom management discussion techniques and tips that have been applied by other instructors. It's a reminder of the wealth of experience and expertise that exists outside our own schools. CTL's facilitation and short tip sheet materials are also valuable takeaways and the staff does a great job of making these easily accessible for the Columbia community."

— **Sandra Navalli**, *Managing Director,*
Tamer Center for Social Enterprise
Adjunct Assistant Professor of Business

"The workshop [on 'navigating difficult discussions'] provided me with something rare and truly valuable: time and space to reflect on the choices I make as a teacher—choices that are almost unconscious . . . Because of the ideas and strategies offered at the workshop, I'm able to see difficult topics as opportunities to create a welcoming classroom atmosphere, rather than as a potential minefield I'm afraid to step on. This has been transformative in my teaching, and I'm very grateful for it."

— **Wendy Schor-Haim**, *Senior Lecturer,*
English Department
Barnard College

Managing Classroom Climate: Implicit Bias and Microaggressions

Faculty learned about the concepts of implicit bias and microaggressions, how they occur in the classroom, and the impact they have on students and faculty. Participants

discussed and applied practical strategies to address microaggressions and implicit bias, whether committed by or against a student or faculty member.

Pedagogical Strategy + Student Motivation = Empowered Learning

Faculty examined how three levers (value, efficacy expectancies, and a supportive environment) can work to move students from their surface-dwelling learning tactics to deep engagement in the classroom.

Teaching Large Classes: Engagement, Management, and Integrity

Faculty explored the challenges of teaching large classes and learned evidence-based strategies to make large classes more manageable and engaging for faculty and students alike.

Teaching with Case Study Method at Columbia

The CTL hosted a panel for the Columbia teaching community to get firsthand information and recommendations about teaching effectively with case studies in their disciplines. Faculty panelists included William B. Eimicke (School of International and Public Affairs), Mary Ann Price (Department of Biological Sciences), and Dan J. Wang (School of Business).

Customized Programs

WORKSHOPS TO GO

This year the CTL debuted its new Workshops To Go program—an on-demand offering for departments or programs interested in hosting a short workshop for their faculty on a teaching and learning topic. All workshops presented evidence-based practices and were grounded in the science of teaching and learning.

With each Workshop To Go offering, faculty received resources, strategies, and practices that can help them address common challenges in their classrooms. Department chairs and program directors selected from a list of session topics offered in 15-, 30-, or 60-minute formats, and then worked with CTL staff to customize the workshop to meet the needs of their faculty.

- **Teaching Large Classes: Engagement, Management, and Integrity:** CTL staff led workshops for faculty from the School of Nursing's Masters Direct Entry (MDE) program, Barnard College, and the Fu Foundation School of Engineering and Applied Science's Department of Computer Science.

- **Learning Through Discussion:** Three Steps to Effective Facilitation: CTL staff led workshops for faculty from the School of Nursing's Masters Direct Entry (MDE) program and the Frontiers of Science program.
- **Inclusive Teaching:** Small Changes to Maximize Equity in the Classroom: CTL staff led workshops for faculty from the School of Nursing's Masters Direct Entry (MDE) program, program directors from the School of Nursing, faculty from the Institute of Human Nutrition, faculty in the School of Professional Studies Narrative Medicine program, faculty attending Mailman School of Public Health's Diversity Institute, and staff from the Columbia Libraries.

CUSTOMIZED WORKSHOP REQUESTS

In addition to Workshops To Go, department chairs and administrators requested customized workshops and information sessions to address the specific teaching needs of instructors in their schools, departments, and other academic units. During these workshops, participants worked through discipline-specific case studies and brainstormed strategies to implement in their own classrooms.

SCHOOLS

Arts & Sciences

- Introduction to the Core for New Faculty (August 30, 2017): In collaboration with the Office of the Core Curriculum, CTL staff facilitated a two-hour session for new tenure-track Arts & Sciences faculty on the unique challenges and opportunities of teaching the Core Curriculum using discussion-based pedagogy.
- Fu Foundation School of Engineering and Applied Science (SEAS) New Faculty Orientation (August 31, 2017): CTL staff provided an overview of the CTL's offerings for new faculty and led a Q&A session.
- New Faculty Orientation (September 8, 2017): CTL staff facilitated short workshops on teaching strategies and information sessions about the CTL's offerings as part of a day-long orientation for new Arts & Sciences faculty.
- "Flip the Script on Student Evaluations: Techniques to Avoid End-of-Semester Surprises While Empowering Your Students as Learners" (January 19, 2018): CTL staff facilitated a workshop on engaging students in the feedback process as part of the Arts & Sciences Junior Faculty Career Development Conference.

- DIY Video workshop for COASTAL Arts & Sciences Faculty (February 2, 2018). CTL staff designed a session for a faculty work group to familiarize them with design frameworks, technology, and workflows to engage students through the use of video and media creation.

Barnard College

- "Inclusive Teaching in the First Year Experience: Turning Student Reactions into Critical Thinking" (October 13, 2017): CTL staff facilitated a session for faculty teaching in the Barnard First Year Experience (FYE) program.
- "Navigating Difficult Discussions: Classroom Strategies and Responses" (February 21, 2018): CTL staff facilitated a session for faculty teaching in the Barnard FYE program.
- "Navigating Difficult Discussions: Classroom Strategies and Responses" (March 28, 2018): Requested as a follow up to a campus-wide event on diversity and inclusion, CTL staff facilitated a workshop focused on classroom discussions for a broader audience of Barnard faculty.

Jewish Theological Seminary

- "Circle of Learning: Inclusive Teaching" (October 26, 2017): Professor Shira Epstein (Jewish Theological Seminary) and CTL staff facilitated a discussion on inclusive teaching, informed by the CTL's Guide for Inclusive Teaching at Columbia, as part of the JTS Circle of Learning faculty discussion group.
- "Slow Teaching, Deep Learning: Contemplative Approaches to Engaged Learning" (November 28 and December 12, 2017): CTL staff facilitated two sessions for JTS faculty and instructors.
- "Circle of Learning: Voices in the Classroom" (December 5, 2017): CTL staff facilitated a discussion about teaching style and dominant voices in the classroom as part of the JTS Circle of Learning faculty discussion group.
- "Circle of Learning: What Does Assessment Mean to Us?" (March 26, 2018): CTL staff facilitated a discussion about positive and negative associations with assessment as part of the JTS Circle of Learning faculty discussion group.
- "Circle of Learning: Navigating Difficult Dialogues" (April 24, 2018): CTL staff facilitated a discussion about dealing with hot moments in classroom discussions as part of the JTS Circle of Learning faculty discussion group.

1,540 interactions with CUIMC faculty
1,032 services provided to CUIMC faculty
508 faculty participants at CTL programs
and events

Here's what they said...

"[The CTL's] workshop on inclusive teaching shared many strategies for building rapport with students, addressing all students in the classroom, and [reflecting on] my own beliefs and how they impact the classroom experience. The workshop on teaching large classrooms introduced me to a myriad of approaches to interactive and student-centered learning activities. The interactive nature of the workshops made them experiential learning events for me."

— **Karen Desjardins**, Associate Professor of Nursing at CUIMC; Director of the Master's Direct Entry to Nursing Program



Paul Stengel, Senior Learning Designer, greets visitors at the CTL's Open House event on the Medical Center campus.

CUSTOMIZED PROGRAMS FOR THE COLUMBIA UNIVERSITY IRVING MEDICAL CENTER

The CTL offered a range of faculty development programs and events on the Medical Center campus to connect CUIMC instructors to effective teaching approaches, resources, and instructional technologies. Its flagship program—the annual CUIMC Summer Institute for Teaching and Learning—attracted medical faculty

interested in exploring effective teaching and learning strategies in health sciences education. Participants developed their skills as educators, learn about interactive teaching techniques, and collaborate with other faculty across the campus. The CUIMC Summer Institute for Teaching and Learning was facilitated by members of CUIMC's teaching community and was co-sponsored by the Anna Maxwell Teaching Academy, Diamond Teaching Academy, Mailman School of Public Health Teaching Academy, Office of Academic Affairs at the Vagelos College of Physicians and Surgeons, and Virginia Apgar Academy of Medical Educators.

The CTL also facilitated several customized workshops and information sessions to address the specific teaching needs of schools, departments, and other academic units at CUIMC.

SCHOOLS

Mailman School of Public Health

- **Core TA Canvas Training (August 28 & 30, 2017):** CTL staff facilitated a customized Canvas workshop for TAs teaching in the Core Curriculum.
- **Biostatistics TA Canvas Training (September 6, 2017 and January 17, 2018):** CTL staff facilitated a customized Canvas workshop for TAs teaching in the Biostats curriculum.
- **"Creating a Supportive Integration of Science and Practice (ISP) Learning Environment" (September 28, 2017):** CTL staff facilitated this session for Mailman faculty teaching ISP courses in the Core Curriculum.
- **"Strengthening Integration of Science and Practice (ISP) Case Discussions" (October 19, 2017):** CTL staff facilitated this session for Mailman faculty teaching ISP courses in the Core Curriculum.
- **"Facilitating Reflective Learning in the Integration of Science and Practice (ISP)" (November 2, 2017):** CTL staff facilitated this session for Mailman faculty teaching ISP courses in the Core Curriculum.
- **"Core Curriculum Assessment Clinic" (May 24 and June 6, 2018):** CTL staff facilitated this session for faculty teaching in the Mailman Core Curriculum.

Vagelos College of Physicians and Surgeons

- **"Presentation Skills in Research" (October 31, 2017):** CTL staff facilitated an interactive overview of effective presentation skills for participants at the Fall 2017 Multidisciplinary Patient Oriented Research (MPOR) Colloquium – BIST P8103.

- “Managing Classroom Climate: Implicit Bias and Microaggressions” (June 4, 2018):
CTL staff facilitated a session as part of a week-long multidisciplinary rotation for senior-level medical residents about the concepts of implicit bias and microaggressions, how they occur in the classroom, and the impact they have on students and faculty.

CENTERS & INSTITUTES

Institute of Human Nutrition

- “Curriculum Mapping Workshop” (June 11, 2018):
CTL staff facilitated a guided curriculum mapping exercise for faculty at the Institute of Human Nutrition.

Services

The CTL offers a range of services that guide Columbia faculty as they reflect on their teaching and implement effective practices.

CONSULTATIONS

Faculty requested 1,390 one-on-one consultations with CTL staff to receive support for their teaching and learning needs throughout the year. Common consultation topics included curricular design, student engagement strategies, the purposeful use of instructional technologies, blended learning, and online education.

TEACHING OBSERVATIONS

The CTL observed an increase this year in the number of requests from faculty for confidential teaching observations, as well as an increase in requests from first-time clients. Through a structured process, CTL consultants observed instructors in the classroom and provided individualized feedback to improve their teaching. CTL staff also worked with schools, programs, and departments seeking to refine their peer teaching observation practice.

ASSESSMENT AND EVALUATION

Faculty requested 73 consultations focused on assessment and evaluation. CTL staff worked with faculty to assess the impact of curricular innovations in their classrooms, provide professional development on assessment best practices, and consult on assessment and evaluation strategies for grants that support teaching and learning.

40 faculty participated in CTL teaching observations

Here's what they said . . .

“One of the most valuable parts of the experience was talking with the observer before the visit to articulate my goals – just having to describe the class, what I thought was working well and what I could improve, to someone else helped me to see things I had not noticed before, or had noticed but not articulated. [I received] lots of really manageable suggestions for how to make changes in line with my goals, some of which I was able to implement right away. We are all always growing and learning as teachers, but these little interventions helped me to grow more and faster, and reflect more actively on my teaching and how I want to grow.”

— **Amy Starecheski**, *Co-Director*
Columbia Oral History MA Program

“As someone who has taught in the college classroom for about 10 years, it was important to me to have a sort of ‘refresher’ and receive some honest and articulate feedback from a knowledgeable source; the CTL offers just that. Having a member of the CTL observe me made me feel comfortable because I trust them as experts of pedagogical practices. The [teaching observation] process is robust and complete – from a pre-meeting through the observation to the post-meeting – and this makes it worthwhile. This observation helped me to learn new strategies to ensure that I reach all of my students effectively.”

— **Kevin Visconti**, *Lecturer in Strategic Communication*
School of Professional Studies

SUPPORT FOR THE PROVOST'S AWARDS TO FACULTY

The Office of the Provost provided funding opportunities through four grant programs for faculty interested in integrating new educational methods and technologies into their classrooms and learning environments. The CTL provided logistical, organizational, and instructional support for faculty awarded funding from the Office of the Provost.

Hybrid Learning Course Redesign and Delivery

The Office of the Provost's Hybrid Learning Course Redesign and Delivery grant program provided faculty with funds of up to \$20,000 and support from the CTL to develop innovative pedagogies and technology-rich learning strategies for Columbia courses.

SPRING 2018 AWARDEES

Andres Bendesky, Assistant Professor of Ecology, Evolution and Environmental Biology

PROJECT: "Principles and Practice in Modern Genomic Data Science"

Doru Cojoc, Lecturer in Discipline of International and Public Affairs

PROJECT: "Visualizing Theory Using Online Simulations"

Isobel Contento, Mary Swartz Rose Professor of Nutrition and Education

PROJECT: "Facilitating Students Learning the Processes of Effective Nutrition Through Blending the Fields of Nutrition Science, Psychology, Education and Communication"

Wing Fu, Assistant Professor of Rehabilitation & Regenerative Medicine

PROJECT: "Developing Students' Clinical Reasoning through a Hybrid Doctoral Course with Low-Cost Patient Simulations"

Nikhar Gaikwad, Instructor in Political Science

PROJECT: "Video and Case Study Pedagogy in International Political Economy"

Vanessa Guida, Lecturer in Discipline in English and Comparative Literature

PROJECT: "Self-Directed Online Academic Writing Course for International Students"

Kim Hekimian, Assistant Professor of Nutrition

PROJECT: "Research Methods in Global and Population Health"

David Helfand, Professor and Chair of the Department of Astronomy

PROJECT: "Simulating the Universe: Stimulating Active Learning"

Dana March, Assistant Professor of Epidemiology

PROJECT: "Hybrid Learning for Quantitative Foundations"

Mary Ann Price, Lecturer in the Discipline of Biological Sciences

PROJECT: "Improving the Implementation of Case Studies in Physiology"

Sharon Schwartz, Professor of Epidemiology

PROJECT: "Epidemiology II: Going all the way with TBL"

Kathy Shear, Marion E. Kenworthy Professor of Psychiatry in Social Work

PROJECT: "Redesigning 'Introduction to Grief Therapy' with Interactive Videos"

SPRING 2017 AWARDEES

Below is the list of faculty who released courses in the 2017-2018 academic year with support or advice from the CTL.

Fall 2017 Courses

Sharon R. Akabas, Associate Professor in Nutrition; Associate Director for Education Initiative, Institute of Human Nutrition

Eleanor Sterling, Adjunct Senior Research Scientist

PROJECT: "Redesigning an Interdisciplinary Foods Course from a Systems Thinking Perspective"

William E. Bailey, Associate Professor of Materials Science and Engineering

PROJECT: "Interactive Web-facing Simulations in the Physical Properties of Materials (two-semester sequence, MSAE4206 and MSAE4215)"

Jose Antonio Castellanos-Pazos, Lecturer of Portuguese and Spanish

PROJECT: "Maximizing Class Time Learning by Flipping a Classroom: An Elementary Comprehensive Portuguese I/II for Spanish Speakers Course"

William B. Eimicke, Professor in the Practice of International and Public Affairs

PROJECT: "EMPA Program Technology Supported Curriculum Redesign"

Kevin Griffin, Professor and Chair, Department of Ecology, Evolution and Environmental Biology

PROJECT: "Engaging Students and Improving Learning Outcomes in a Blended Classroom: A Redesign of EESC 4550 Plant Physiological Ecology"

Silvia Martins, Associate Professor of Epidemiology
PROJECT: "Principles of Epidemiology: An Upgraded Flipped Classroom Proposal"

Caroline Braun Marvin, Director of Instruction and Lecturer in the Discipline of Psychology

PROJECT: "Engagement through Exploration and Experimentation: Building '21st-Century Skills' in an Introductory Neuroscience Course"

Ansaf Salleb-Aouissi, Lecturer in the Discipline of Computer Science

PROJECT: "Adding a Chatbot to Answer FAQs in Massive Open Online Courses"

Soda Mariame Iyane Sy, Lecturer in Wolof and Pulaar

PROJECT: "A Technology-based Supplemental Redesign for Elementary Wolof"

Spring 2018 Courses

Angelina Craig-Florez, Senior Lecturer in Spanish

PROJECT: "Beyond the Textbook: A Hybrid Redesign for Spanish Intermediate II"

Lenin Grajo, Assistant Professor of Rehabilitation and Regenerative Medicine

PROJECT: "Developing Client-Centered and Function-based Outcome Measures through a Hybrid Doctoral Course on Measurement and Instrumentation"

Thomas Groll, Lecturer in International and Public Affairs

PROJECT: "Adaptive e-Learning in Economics"

Thai Jones, Herbert H. Lehman Curator for American History

PROJECT: "Hybrid Learning and Redesign Course Proposal for the Sixties in the Archives"

Shantanu Lal, Associate Professor of Dental Medicine

PROJECT: "Virtual Reality For Dental Anxiety Management: A Paradigm Shift In Healthcare Education"

Letty Moss-Salentijn, Zegarelli Professor of Dental Medicine

PROJECT: "Local Anesthesia: VR/AR Learning Tool Development"

José P. Ruiz Campillo, Senior Lecturer in Spanish

PROJECT: "Building Gamification and Interactivity to Drive Out of Class Work in Spanish Language Courses"

Bette Weneck, Associate Director and Lecturer, Center on History and Education

PROJECT: "Mapping the History of Education in New York City"

Summer 2018 Course

Kathleen Mullen, Assistant Professor of Nursing

PROJECT: "Team-Based Learning of the Nursing Process"

Recent highlights from Hybrid Learning Course Redesign and Delivery projects . . .

Thomas Groll, Lecturer in International and Public Affairs

Groll's students achieved deeper learning based on their interactions with economic graphing models developed by the CTL (econpractice.ctl.columbia.edu). Practice modules allowed Groll to set up an economics scenario with an accompanying graph. Students then interacted with that graph, moving curves and changing values. Students received immediate feedback based on these movements and expertise provided by Groll.

Angelina Craig-Flórez, Senior Lecturer in Spanish

Craig-Flórez implemented a hybrid redesign for her Spanish Intermediate II course using theme-driven course content and replacing textbooks with authentic multimodal materials. The result was a course that fosters a community of inquiry, promotes inclusiveness, and provides a true blended learning experience.

Caroline Marvin, Director of Instruction and Lecturer in the Discipline of Psychology

Marvin redesigned her introductory neuroscience class to increase student engagement and enhance students' scientific thinking skills through inquiry-based techniques such as in-class experimentation, demonstrations, case studies, and polling. Students watched videos and completed associated quizzes online before coming to class, enabling Marvin and her students to use class time to further explore concepts and to develop scientific thinking skills.

Kathleen Mullen, Assistant Professor of Nursing

Mullen introduced virtual simulations into her course to help develop students' critical thinking skills and to serve as a bridge between course lectures and live simulations. The simulations are video recordings of a staged interaction between a nurse and a patient, which pause at key moments and require the student to interact with the video, ensuring the learner is engaged.

Bette Weneck, Associate Director and Lecturer, Center on History and Education

Weneck's students used a new online tool created by the CTL (writlarge.ctl.columbia.edu) to map sites of formal and informal teaching and learning in New York City neighborhoods across time, and locate archival collections housed in libraries and repositories across the city. Students and researchers curated multimedia and metadata to populate the map.

Faculty Spotlight:

Kyle Mandli, 2016 Hybrid Learning Award

Recipient; Assistant Professor, Department of Applied Physics and Applied Mathematics

As a recipient of the Provost's Hybrid Learning Course Redesign and Delivery award, Kyle Mandli received support from the CTL to redesign his Introduction to Numerical Methods course. He used group work, paired programming, and open source technologies to engage students in a large lecture environment.

On engaging students using open source technologies . . .

The course notes themselves are open source, which allows students to participate in the creation of the notes via the GitHub platform. Students have expressed that they enjoy the feeling of having ownership over their learning as they actively participate in improving the notes. The fact that they are open source has also meant that these notes are used outside of Columbia to help the wider teaching community with teaching these topics.

On collaborating with the CTL . . .

We spent some time, with the CTL's help, trying to figure out better ways to grade and improve submission systems. The CTL also helped design the pre- and post-course surveys, asking questions that try to get at how much the students were really learning: whether they were confident in their skills, were they able to correctly identify what their level was . . . because all of that feeds into figuring out how to group people.

Read the full Faculty Spotlight feature on Mandli's course redesign at bit.ly/mandlispotlight.



Kyle Mandli (Department of Applied Physics and Applied Mathematics)

MASSIVE OPEN ONLINE COURSES RFP

The Office of the Provost's Massive Open Online Courses (MOOCs) grant program provided faculty with funds of up to \$25,000 and support from the CTL to develop innovative online courses. MOOC instructors partnered with the CTL to develop a learning design for media production and course delivery.

Spring 2018 Awardees

William Eimicke, *Professor of Professional Practice in the Faculty of International and Public Affairs*

Amanda Irvin, *Director of Faculty Programs and Services, Center for Teaching and Learning*

Alice Kessler-Harris, *R. Gordon Hoxie Professor Emerita of American History in Honor of Dwight D. Eisenhower*

Beth Morgan, *Director of Higher Education Transition and Partnership for the Center for Veteran Transition and Integration*

MOOCs Released in 2017-2018

Below is the list of MOOCs completed and released in the 2017-2018 academic year with support from the CTL.

Corporate Finance Professional Certificate Program

Daniel Wolfenzon, *Stefan H. Robock Professor of Finance and Economics, Columbia Business School*

The three-course Corporate Finance Professional Certificate Program explored both the sound theoretical principles of finance and the practical environment in which financial decisions are made. Based on the first-year course taught in Columbia Business School's MBA core, the program targeted students and professionals looking to advance their career in a range of professions, including investment banking, private equity, consulting, general management, and CFO track jobs within a corporation. First released September 2017 on the edX platform, the course relaunched in February 2018.

University Studies for Student Veterans

R.J. Jenkins, *Curriculum Designer
Center for Veteran Transition and Integration*

Sara Remedios, *Associate Dean of Students
School of General Studies*

Josh Edwins, *Senior Assistant Dean of Students
School of General Studies*

The University Studies for Veterans course was designed to help student veterans excel in a college environment before beginning their college careers. The course introduced students to foundational academic and

study skills, strategies for more effective reading, writing and test preparation, and how to navigate the norms and expectations of a college classroom. The course launched as a self-paced course in September 2017 on the edX platform.

Pediatric HIV Nursing

Fighting HIV with Antiretroviral Therapy: Implementing the Treat-All Approach

Susan Michaels-Strasser, *Professor of Epidemiology, ICAP at Columbia University*

Two new courses from ICAP at Columbia targeted healthcare providers seeking training for HIV treatment and prevention. Based on up-to-date guidelines from the World Health Organization, one course provided training for pediatric HIV nursing care and treatment while the other focused on antiretroviral therapy for treating and preventing HIV. Both self-paced courses were launched April 2018 on the edX platform.

New Editions/Relaunches in 2017-2018

Global Muckraking:

Investigative Journalism and Global Media

Anya Schiffrin, *Director of the Technology, Media, and Communications specialization, Columbia University School of International and Public Affairs*

Science of Learning: What Every Teacher Should Know

Pearl Kane, *Klingenstein Family Professor for the Advancement of Independent School Education Teachers College*

Kevin Mattingly, *Adjunct Associate Professor Teachers College*



Sharon Akabas (Institute of Human Nutrition)

Faculty Spotlight:

Sharon Akabas, 2017 Hybrid Learning Award

Recipient; *Associate Professor in Nutrition; Associate Director for Education Initiative, Institute of Human Nutrition*

Eleanor Sterling, 2017 Hybrid Learning Award

Recipient; *Adjunct Senior Research Scientist*

As recipients of the Provost's Hybrid Learning Course Redesign and Delivery award, Sharon Akabas and Eleanor Sterling redesigned their Food, Ecology, and Globalization course by shifting away from lecture-based class sessions to a "flipped" structure that incorporated group and collaborative hands-on learning exercises. By introducing new tools and conceptual frameworks, they were able to help students acquire the information and skills to assess science-based claims and information as future professionals.

On the teaching challenges that informed the course design . . .

Sterling: The redesign sought to address two recurrent challenges in the course. One was the need to develop process skills in many students, such as systems thinking and critical thinking, that would help students in identifying the links between the various topics presented and in critically evaluating related evidence. The second challenge was that the course attracts students with a broad range of content backgrounds, especially varying backgrounds in science.

On collaborating with the CTL . . .

Akabas: Our CTL project lead Amanda Jungels, was instrumental in our successful redesign. She was able to review materials, provide resources to help with pedagogical framing and practical advice, and critically evaluate our progress throughout the semester. Without her support, we would have faced many more challenges during the semester. We also benefited tremendously from our participation in the 2017 CTL Active Learning Institute in advance of the course. It was absolutely critical for us to step back, leverage the principles of backwards design, and map out the class and assignment structure, while thinking about learning about learning as well as content.

Read the full Faculty Spotlight feature on Akabas and Sterling at bit.ly/akabassterling.



The CTL Media Production team shoots video footage for the Corporate Finance Professional Certificate program led by **Daniel Wolfenson** of the Columbia Business School.

Innovating Instruction: Reimagining Teaching with Technology

Ellen Meier, *Director and Co-Founder, Center for Technology and School Change at Teachers College*

LARGE-SCALE TEACHING AND LEARNING GRANT

The new Large-Scale Teaching and Learning Grants supported efforts around teaching initiatives and exploration at the school, department, or program level. Awards provided up to \$20,000 per academic year plus in-kind CTL support.

Spring 2018 Awardees

Pam Cobrin, Cecelia Lie-Spahn, Laurie Postlewate, Wendy Schor-Haim; *First-Year Writing Program, Barnard College*

PROJECT: "Building and Sustaining Inclusive Pedagogies in First-Year Writing and First-Year Seminar at Barnard College"

Michelle Hall, *Director of CUIMC Programs and Services, Center for Teaching and Learning*

PROJECT: "Providing State of the Art Services and Facilities to Support Media Development for Blended Learning and Online Teaching"

Ivana Nikolic Hughes, *Senior Lecturer in the Discipline of Chemistry*

PROJECT: "Assessment to Document Student Learning in Frontiers of Science"

Julie Kornfeld, *Vice Dean for Education*

PROJECT: Transforming Public Health Education at Mailman through Digital Learning

Dustin Rubenstein, *Associate Professor of Ecology, Evolution and Environmental Biology*

PROJECT: "sTEAM Fellowship Program: A Team-based, Experiential Learning Research Program for Underrepresented Students"

Dana Wolf, *Associate Professor of Dental Medicine*

PROJECT: "Division of Periodontics: Online Faculty Calibration Tool"

START SMALL! MINI GRANTS

The new Start Small! Mini-Grants provided support to faculty who are interested in experimenting with one new pedagogical strategy or tool. Recipients received in-kind support from the CTL and up to \$2,000 for a one-semester period.

Spring 2018 Awardees

Alice Hecklen, *Senior Lecturer in the Discipline of Biological Sciences*

PROJECT: "Developing Probing Questions for Original Research Article Class Discussion"

Maria Abascal, *Assistant Professor of Sociology*

PROJECT: "Learning Experimental Methods Through Hands-On Data Collection"

Logan Brenner, *Lecturer in the Discipline of Earth and Environmental Sciences*

PROJECT: "Development and Implementation of Brain and Behavior Case-Based Learning Experience to Enhance Scientific Habits of Mind in the Columbia College Core Curriculum"

Amy Starecheski, *Lecturer in the Discipline of Sociology*

PROJECT: "Curating Oral Histories: Audience Engagement, Evaluation, and Student Learning"

Denise Milstein, *Lecturer in the Discipline of Sociology*

PROJECT: "Dispatches from the Field: Social Observation in Print"

Dan Esposito, *Assistant Professor of Chemical Engineering*

PROJECT: "Evaluation and Assessment Tools for a Course-based Crowdsourcing Activity"

Elsa Stéphan, *Lecturer in the Discipline of French*

PROJECT: "Creative Use of Digital Tools in the Language Classroom"

Samantha Garbers, *Assistant Professor of Population and Family Health*

Bill Bower, *Special Lecturer in Population and Family Health*

PROJECT: "Game-based Program Planning & Logic Model Learning Experience"

INSTRUCTIONAL TECHNOLOGY SUPPORT

The CTL helps members of the Columbia teaching community effectively integrate instructional technologies in their teaching practice. Faculty and instructors can get advice, training, and support to experiment with a rich portfolio of online platforms and digital and media tools to turn classrooms into active spaces for learning. The CTL also supports custom software development and media production driven by the faculty's teaching and assessment goals. These efforts allow faculty to stay on the cutting edge of instructional technologies.

Columbia's learning management system, CourseWorks, is at the center of many instructional technology activities. CourseWorks is supplemented and enhanced by other tools that support a range of instructional objectives, such as tools for online collaboration, presentations, lecture capture, audience response, media annotation, and electronic portfolios. The CTL researches and experiments with new digital and media tools, expanding the opportunities for instructional activities that can be enhanced by technology.

This year the CTL participated in the following initiatives to support the use of instructional technologies among Columbia faculty.

CourseWorks Migration Initiative

In partnership with Columbia University Information Technology (CUIT), the CTL supported faculty and administrators in the migration from the Sakai-based learning management system to Canvas. The CTL's learning designers facilitated training workshops and labs, and held consultations with instructors by phone, email, or in person. This year the CTL offered more than 70 in-person CourseWorks (Canvas) workshops and trained over 180 faculty, teaching assistants, and staff to support the transition to the new learning management system. In partnership with CUIT, over 40,000 Canvas courses were created and supported during the final transition phase.



Lakshmi Nair, Learning Designer, consults with instructors on navigating CourseWorks (Canvas) and other learning platforms at the CTL's Open House event.

CUIMC Recording Booth

Over the past several years, faculty have communicated a desire for a quiet, supported space to create their own course videos. In collaboration with the College of Dental Medicine, the CTL purchased and equipped a recording booth for its office on the CUIMC campus to support instructors' needs for video production. The new recording booth featured high-end, easy-to-use recording equipment, recording and editing software, and access to CTL staff who are available to offer support and guidance.

Media and Software Development Projects

This year Columbia faculty partnered with the CTL to develop online environments that supported and enriched students' learning. CTL programmers, designers, and media producers collaborated with faculty to produce unique media productions, online tools, interactive materials, and reusable and scalable software and applications. The following is a list of projects developed or released this year.

Civil War and Reconstruction MOOC

Department of History

URL: edx.org/xseries/civil-war-reconstruction

The Civil War and Reconstruction MOOC series on edX introduces students to the most pivotal era in American history. Over three courses, Eric Foner, DeWitt Clinton Professor of History, covers the changes in the Union and the Confederacy, and the Civil War's long-term impact. This year the CTL relaunched the highly popular series as its first mobile-ready MOOC and the first to use edX's new dynamic pacing feature.

Public Health Training Center

Mailman School of Public Health

URL: region2phtc.org

Region 2 Public Health Training Center, one of 10 regional centers responsible for providing competency-based education and training to the governmental public health workforce in New York, New Jersey, Puerto Rico and the US Virgin Islands. This year the CTL provided Marita Murrman, Professor of Sociomedical Sciences and the Center's principal investigator, with instructional design support for developing learning modules and producing videos for the Center's monthly webinar series.

Virtual Microscopy

Vagelos College of Physicians and Surgeons

URL: histologylab.ctl.columbia.edu

The Virtual Microscopy Lab manuals serve as guides for students working in histology and pathology laboratories, and are heavily used in the first year of Columbia's medical and dental programs. This year the CTL worked with Patrice Spitalnik, Professor of Pathology and Cell Biology, to support a refresh of the Virtual Microscopy Lab website. The new online manuals are responsive and accessible.

Panopto Migration

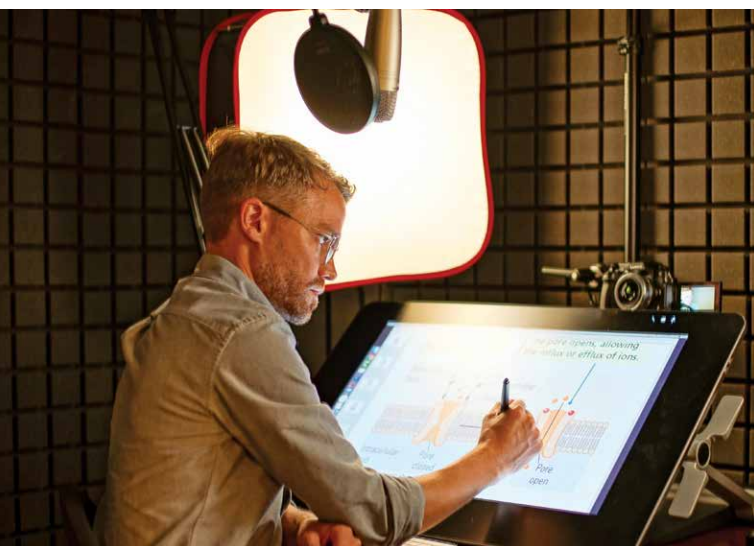
URL: github.com/ccnmtl/pypanopto

Classroom media resources often need to be protected from public access, usually for privacy and copyright concerns. This year Columbia University contracted with Panopto to provide a hosted authenticated media streaming service designed to manage University video and audio needs. The CTL worked closely with CUIT and Panopto developers to migrate media assets to the Panopto environment and produce a Python Panopto integration library that is available to the open-source community via GitHub.

Resources

The CTL develops online resources for instructors covering a range of teaching and learning topics. The resources provide a concise introduction to pedagogical approaches, the basics of effective implementation, tips for getting started at Columbia University, and practical strategies to help instructors address the teaching and learning issues that they face in their classroom.

Visit ctl.columbia.edu/resources to access all of the CTL's resources, online courses, and recorded presentations and events.



The new recording booth at CUIMC offers equipment, software, and resources produce engaging videos for the classroom.



The CTL maintains a collection of reference books in Butler Library Room 212 available for use by the Columbia teaching community.

Teaching Guide

Guide for Inclusive Teaching at Columbia

URL: ctl.columbia.edu/resources/inclusive-teaching-guide/

This year the CTL authored and released the Guide for Inclusive Teaching at Columbia. The guide offers five inclusive teaching principles derived from research and evidence-based practices, as well as practical, accessible, and usable strategies that instructors can use immediately. The online version of the guide has been accessed over 4,571 times in 55 countries since August 2017. In late Fall 2018, the CTL released a print version of

the guide; since then, over 200 copies have been distributed to campus partners, department chairs, and participants in the CTL's inclusive teaching programming.

New On-Demand Teaching Resources

Blended Learning

URL: ctl.columbia.edu/resources/blended-learning/

The CTL's on-demand resource on blended learning describes the elements of an effective, learner-centered "blended" learning approach that integrates complementary face-to-face and online learning experiences in service of intended learning objectives. It offers questions that instructors can reflect on before designing their course and additional references and resources.

Contemplative Pedagogy

URL: ctl.columbia.edu/resources/contemplative-pedagogy/

This on-demand resource provides strategies for helping instructors build in opportunities for students to develop deeper understandings of course material. It offers contemplative techniques that can complement more traditional classroom activities to transform the way students come to learn about and understand the world.

2018 Celebration of Teaching and Learning Symposium

 COLUMBIA | CTL
Center for Teaching and Learning
Office of the Provost



Cathy Davidson, Keynote Speaker at the 2018 Celebration of Teaching and Learning Symposium

Teaching with Do-It-Yourself “DIY” Video

URL: ctl.columbia.edu/resources/teaching-with-do-it-yourself-video/

Developed by the CTL’s learning designers and media production team, this resource provides examples, principles, and best practices to help instructors create active and engaging classroom experiences using video. It offers recommendations for creating effective instructional videos; best practices for setting up, recording, editing, and publishing video; and advice on the tools required to produce videos.

New Online Courses

Introduction to CourseWorks (Canvas) Online

Introduction to CourseWorks (Canvas) Online provides instructors with an overview of the basic features and functionality of Columbia’s learning management system, allowing them to build and support engaging courses. In this self-paced training, participants learn how to migrate their content from CourseWorks (Sakai), navigate Canvas, manage syllabi and course materials, use quizzing tools, and utilize communication features in the system. Since the course launched in Fall 2017, the course has recorded 810 enrollments by faculty and instructors.

Assessment and Grading in Canvas

Assessment and Grading in Canvas provides instructors with an in-depth understanding of the assessment and grading features in CourseWorks (Canvas). In this self-paced training, participants learn about setting up assignments within CourseWorks using various tools. It also helps participants navigate the different

grading features available within CourseWorks to grade assignments, quizzes, and discussions. Since the course launched in late Spring 2018, the course has recorded 73 enrollments by faculty and instructors.

Recorded Presentations and Events

Columbia Students Share Their Most Engaging Learning Experiences

URL: bit.ly/ctlstudentpanelf17

Columbia undergraduate and graduate students spoke to Columbia faculty during the CTL’s Teaching Orientation for Faculty in Fall 2017. A panel of Columbia students shared their most memorable and engaging learning experiences at the University.

Provost’s Conversations on Online Learning

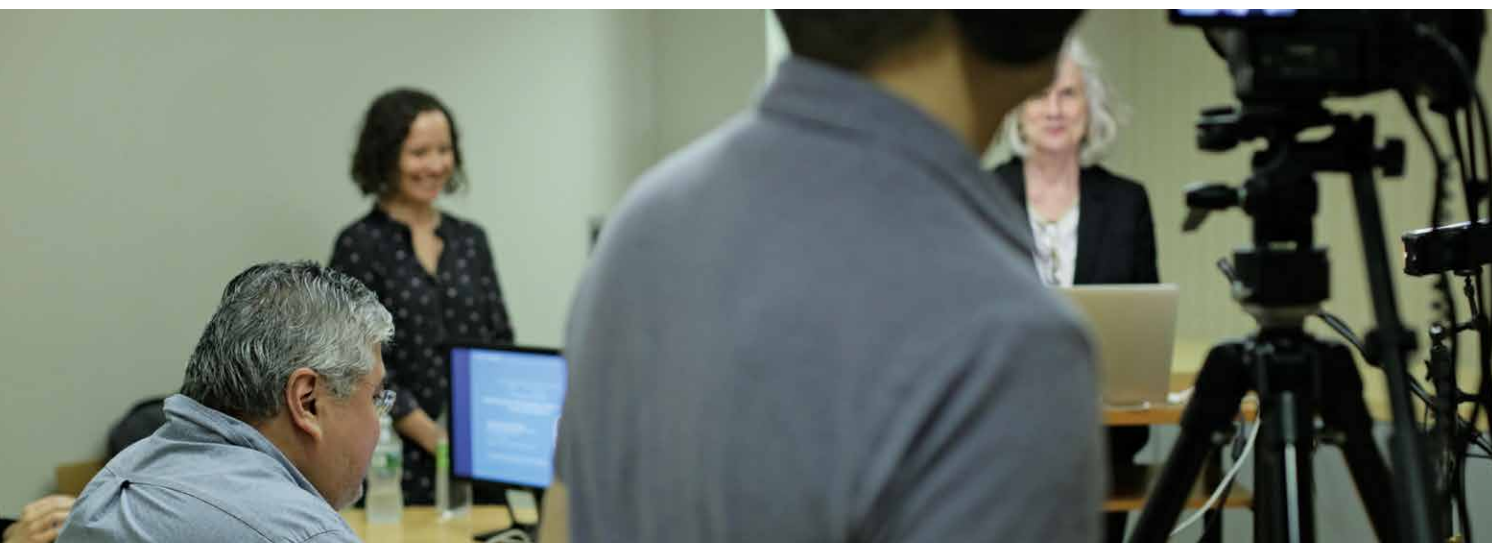
URL: bit.ly/pcoolplaylist

The Provost’s Conversations on Online Learning is a series of public talks by leading experts and peers on the future of education, specifically online education. The two sessions held this year were recorded and are now available to view online.

Cathy N. Davidson on “The New Education”

URL: bit.ly/cotl18davidson

The 2018 Celebration of Teaching and Learning Symposium featured keynote speaker Cathy N. Davidson, author of *The New Education: How To Revolutionize the University to Prepare Students for a World in Flux* (Basic Books). In her talk, Davidson asked: considering the complexities of the world today’s students have inherited, what should higher education look like?



CTL’s media team film Dr. Marita Murman for a Region 2 Public Health Training Center webinar.

Support for Graduate Students

The CTL supports the professional development of Columbia graduate students across the University with current or future teaching responsibilities. The CTL also offers an array of support to graduate students to help them reflect on, improve, and measure their teaching at Columbia. Graduate students participating in the CTL's programs and services develop a sense of pedagogical agency, interdisciplinary exchange, and peer-driven inquiry that helps prepare them for the future in a variety of academic and professional settings. They also develop instructional practices that are learner-centered and inclusive. This section highlights the range of programs and services offered to graduate students by the CTL.

Programs

UNIVERSITY-WIDE PROGRAMS

The CTL offers professional development programs and events that connect Columbia graduate students across the University to effective teaching approaches, resources, and instructional technologies. The CTL runs a wide variety of offerings so that graduate students can choose the right amount of engagement in teaching development at any given stage in their academic programs.

Fellowships provide Columbia doctoral students with an opportunity to apply for a paid, sustained professional development experience.

Institutes provide an immersive setting for graduate students to develop new teaching approaches and skills with hands-on guidance from CTL staff over a period of several days.

Seminar programs engage graduate students in peer cohort through a series of connected modules, workshops, and discussion groups on teaching and learning topics, which are typically held over one semester.

Learning Communities and Journal Clubs are designed to address the particular interests that graduate students have as they cultivate instructional practices in today's teaching and learning environment.

Workshops and Events provide a space for graduate students to explore timely topics related to teaching, learning, and instructional technologies.

Teaching Orientations introduce graduate students to a range of teaching resources at Columbia, university procedures and policies, and methods for getting a class off to a good start.

3,133 interactions with Columbia graduate students

844 services provided to Columbia graduate students

2,289 graduate student participants at CTL programs and events

Here's what they said . . .

"As a graduate student and instructor at Columbia, I found in the CTL a truly supportive and committed community that enabled me to enhance my teaching performance and polish my profile and skills for the job market. CTL workshops provided me with the space to rehearse, practice, and develop my pedagogical strategies while also nurturing and strengthening my vision of the role of teachers and their outreach in our society. The CTL community provided me with the skills needed to embrace the job market and land a tenure track position in my field."

— **Mariana-Cecilia Velázquez**, PhD student in Latin American and Iberian Cultures;
CTL Lead Teaching Fellow



CTL Fellows gather for a reception at the end of the fall semester to connect with each other and share how they are changing teaching through various initiatives on campus.



Student Spotlight:

Nicole Gervasio, PhD Student in English & Comparative Literature; Lead Teaching Fellow, English & Comparative Literature, 2017-2018; Senior Teaching Observation Fellow, 2016-2017; Peer Teaching Consultant (Teaching Observation Fellow), 2015-2016

On overcoming initial challenges and anxieties as a new teaching assistant . . .

As excited as I was about teaching, as soon as I TA'd for the first time, I learned that teaching does not come naturally. My anxiety caused me to speak to my class at an incomprehensible speed, and I really struggled to moderate a conversation . . . I recognized at that moment that only by researching the subject of teaching as diligently and intentionally as I had queer theory in postcolonial literature, for example, would I be able to serve my students as proficiently as I wanted to.

On how participating in the CTL's Teaching Observation Fellowship and Lead Teaching Fellowship programs strengthened her own teaching practices . . .

Participating in these programs at CTL really did equip me with the concrete tools I needed to put my philosophy into action; I had always believed students should be active agents of their own educations, but I lacked confidence in my own abilities to afford them this freedom while still maintaining their trust in my own authority and expertise. Now I feel completely competent in loosening the reins to permit them more say in the community we're creating.

Read the full Student Spotlight feature on Gervasio's teaching experience and insights at bit.ly/gervasiospotlight.



Student Spotlight:

Braden Czapla, PhD Student in Mechanical Engineering; Senior Lead Teaching Fellow, Mechanical Engineering, 2017-2018; Lead Teaching Fellow, 2016-2017

On feeling connected to teaching . . .

When I started my graduate work at Columbia, I was once again a teaching assistant but transitioned out of the classroom and into a research assistantship after one semester. I missed teaching and working with students in the classroom. So when the CTL opened up its Lead Teaching Fellows program to the engineering school for the 2016-2017 school year, I jumped at the opportunity to apply.

On his experience as a Lead Teaching Fellow . . .

What the CTL does best, in my opinion, is create a community of scholars who believe in the importance of pedagogy. In STEM fields, it is not uncommon to prioritize research over teaching responsibilities. The CTL and the Lead Teaching Fellow program provided me an outlet to further my education in teaching. But maybe more importantly, they gave me a platform and the training to look back at my own field and share my interest in teaching with my peers, creating a small community of our own within mechanical engineering.

Read the full Student Spotlight feature on Czapla's teaching experience and insights at bit.ly/czaplaspotlight.

HIGHLIGHTS OF AY 2017-2018

66 graduate student fellows and teaching consultants

Fellowships

This year the CTL offered the Lead Teaching Fellowship, the Teaching Observation Fellowship, and the Teagle Teaching Consultant Fellowship (funded by the Teagle Foundation).

Lead Teaching Fellows

Lead Teaching Fellows produced teaching-related events and workshops for peers in their home departments, with support from the CTL. This year Senior Lead Teaching Fellows mentored a roster of 34 Lead Teaching Fellows as they designed and produced over 60 teaching-related workshops and discussions across the University. See page 38 for a list of workshops facilitated by Lead Teaching Fellow for their schools and departments. Fellows also participated in a series of interdisciplinary gatherings to plan and reflect on their departmental events.

2017-2018 Senior Lead Teaching Fellows

Elizabeth Bailey , Chemistry	Evan Jewell , Classical Studies
Victoria Wiet , English and Comparative Literature	Braden Czapla , Mechanical Engineering
Almudena Marín Cobos , Latin American and Iberian Cultures	Luciana de Souza Leão , Sociology

2017-2018 Lead Teaching Fellows

Valerie Bondura , Anthropology	Stefan Tarnowski , Anthropology
Mark England , Applied Physics and Applied Mathematics	Karin Christiaens , Art History and Archaeology
Sofia Gans , Art History	Kirsten Blancato , Astronomy
Molly Booth , Biological Sciences	Elena Carazo Arias , Biological Sciences
Makeda Tekle-Smith , Chemistry	Zhenyu Shou , Civil Engineering and Engineering Mechanics
Yujhán Claros , Classical Studies	Colin Raymond , Earth and Environmental Sciences
Abigail MacBain , East Asian Languages & Cultures	Lorenzo Lagos , Economics
Nicole Gervasio , English and Comparative Literature	Elizabeth McIntosh , English and Comparative Literature
Roheeni Saxena , Environmental Health Sciences	Scot McFarlane , History
Massimiliano Delfino , Italian	Mariana-Cecilia Velázquez , Latin American and Iberian Cultures
Aseel Najib , Middle Eastern, South Asian and African Studies	Richa Batra , Mechanical Engineering
Arvind Srinivasan , Mechanical Engineering	Brandon Zimmerman , Mechanical Engineering
Velia Ivanova , Music	Michael Weinstein-Reiman , Music
Richard Dorritie , Nursing	César Cabezas Gamarra , Philosophy
Brittany Koffer , Philosophy	Kiley Kennedy , Physics
Kate Turetsky , Psychology	Krista Dalton , Religion
Kathleen Griesbach , Sociology	Joséphine Gantois , Sustainable Development

Teaching Observation Fellows

Teaching Observation Fellows worked closely with the CTL, peer mentors, and each other across the academic year to assess and reflect on targeted elements of classroom teaching. The fellowship helped them to develop critical perspectives on the design, implementation, and assessment of teaching by observing each other in various settings and offering structured feedback.

This year two Senior Teaching Observation Fellows mentored 15 Teaching Observation Fellows. The Fellows participated in formal observations of one another’s teaching, microteaching practice sessions, and observations of faculty. Upon completing the fellowship, Teaching Observation Fellows were qualified to join a cohort of trained teaching consultants in the CTL next year.

2017-2018 Senior Teaching Observation Fellows

Alex Fabrizio , English and Comparative Literature	Niki Kiviat , Italian
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2017-2018 Teaching Observation Fellows

Anna Schirrer , Anthropology	Sonia Coman-Ernstoff , Art History and Archaeology
Catherine Hoar , Earth and Environmental Engineering	David Alfaro Serrano , Economics
Jessica Engebretson , English and Comparative Literature	Chelsea Spata , English and Comparative Literature
Kevin Windhauser , English and Comparative Literature	Adam Matthews , History
Noelle Turtur , History	Christina McGrath , Italian
Claudia Sbuttoni , Italian	Efrat Nechushtai , Journalism
Andrés García Molina , Music	Paula Harper , Music
Chanwoong Baek , Teachers College	



Christopher Chen, Assistant Director of Graduate Student Programs and Services, facilitates a seminar for STEM graduate students and postdocs on the CUIMC campus.

Center for the Integration of Research, Teaching and Learning (CIRTL) Fellowship

The CIRTL Fellow is a key component of Columbia’s institutional partnership with the Center for the Integration of Research, Teaching and Learning (CIRTL) Network. (See page 50 to learn more about the CIRTL Network.) The fellowship provides a science, technology, engineering and math (STEM) doctoral student with opportunities to serve in a leadership role on campus and participate in networking opportunities with STEM leaders across more than 40 member institutions.

This year’s CIRTL Fellow was Franziska Landes, PhD student in the Department of Earth and Environmental Sciences. Drawing on resources provided through the CIRTL Network and the CTL, Landes promoted and supported CIRTL learning communities and workshops on the Morningside and CUIMC campuses, and served as a mentor to STEM peers during the year.

Teagle Teaching Consultants

In 2017 the Teagle Foundation awarded the Graduate School of Arts and Sciences funds to support six select doctoral students participating in a series of activities that will help the CTL strengthen and expand its new microteaching practice service. Teagle Teaching Consultants facilitated microteaching sessions in which 3-4 participants delivered short samples of instruction and received feedback from the facilitator and other session participants. Consultants followed a structured facilitation process and used materials created at the CTL.

For some sessions, they also captured and replayed video footage during the session. After the session, consultants authored and distributed a brief follow-up report.

Consultants facilitated microteaching sessions in various forms and in various contexts. This helped them to critically assess the CTL's implementation of microteaching and compare it against other models, culminating in a collaboratively authored recommendation for the future of this service.

2017-2018 Teagle Teaching Consultants

Kirsten Blancato , Astronomy	Anna Conser , Classics
Emma de Beus , English	Josh Donovan , History
Massimiliano Delfino , Italian	Allison DeWitt , Italian

Other Professional Development Opportunities

Columbia doctoral students were also invited to apply for other paid professional development opportunities, in which they were trained and supported by the CTL to offer teaching support services to peers.

Teaching Consultants

Teaching Consultants provided teaching observation services to graduate student instructors at Columbia. These observations were structured, confidential, formative, and overseen by CTL staff. Graduate student Teaching Consultants were trained in the protocols of observing peers through yearlong participation in the Teaching Observation Fellowship.

2017-2018 Teaching Consultants

Allison DeWitt , Italian	Zachary Domach , Religion
Erica Drennan , Slavic Languages	

Institutes

The CTL's Innovative Teaching Summer Institute (ITSI) was an intensive, multi-day series of workshops, discussions, and reflections for graduate students centered on the effective use of instructional technologies and pedagogical approaches. By the end of the Institute, participants defined, revised, and presented an innovative assignment with specific learning objectives and planned assessments to measure their students' progress.

During the institute, invited faculty and graduate student presenters shared their own innovative teaching projects including case studies, role playing games, projects cultivating digital literacies, multimedia creation and analysis, and other learner-centered student activities.

Participants embarked on "field trips" to several locations on campus to try out a variety of instructional technologies and advanced pedagogies, and to learn about campus and online resources that could help them meet their goals.

Seminar Programs

This year the following seminar programs were offered to graduate students.

Evidence-Based Teaching Practices in Science and Engineering Seminar

The CTL offered the Evidence-Based Teaching Practices in Science and Engineering (ETSE) Seminar during the fall and spring semesters on the Morningside and CUIMC campuses, respectively.

55 graduate student participants in the 2018 Innovative Teaching Summer Institute

Here's what they said...

"I found [ITSI] to be a really thought-provoking and inspirational experience for myself, especially because I have only just completed my first year of teaching. I felt that I've learned a lot of different ways that I can create a more inclusive and engaging classroom environment for my students, and I am excited to try implementing some of those things this coming year."

— **Tatyana Avilova**, PhD student in the
Department of Latin American and Iberian Cultures

"It is such a privilege to be able to participate in [events like ITSI] and at no cost to us! The whole program was very well thought out and delivered so flawlessly, and I definitely benefited from many different aspects of the workshop. I'm already looking forward to my next interaction with the CTL!"

— **Tomer Yavetz**, PhD student in the
Department of Astronomy

"The institute was such a fun and enlightening experience, and I really enjoyed coming to campus each day. I learned much more than I thought I would, and really saw my assignment take shape over the course of the four days while being exposed to countless different perspectives across so many disciplines."

— **Tylar Colleluori**, PhD student in the
Department of Italian

The series, facilitated by CTL staff with CIRTLL Fellow Franziska Landes, was designed for postdocs and graduate students undertaking STEM teaching for the first time or looking to advance their teaching through engagement with the research on teaching and learning. Participants applied the principles of backward design to develop student learning objectives, aligned assessments, and active learning activities to better facilitate student learning.



The CTL's Graduate Student Programs and Services staff gather with the 2018 cohort of the Innovative Teaching Summer Institute.

Inclusive Teaching Seminar

The CTL offered the Inclusive Teaching Seminar for graduate students during the spring semester. The seminar was designed as a four-part workshop series for graduate student instructors to reflect on their teaching experiences. In a cohort of peers, participants engaged with scholarship on inclusive teaching, developed concrete strategies for promoting diversity in their classrooms, and created an action plan for teaching inclusively.



Participants in the CTL's Inclusive Teaching Seminar learn concrete strategies for creating inclusive classroom environments.

118 graduate student participants in CTL seminar programs

Here's what they said . . .

"For me, the most valuable part of the Evidence-Based Teaching in Science and Engineering Seminar was the wealth of hands-on experience I obtained, both during the sessions themselves and through at-home activities. We spent class time brainstorming ways to use what we'd learned in our own teaching practice, and used time between sessions to develop learning objectives and class activities for a topic of our choosing. After participating in the seminar, I have much more confidence in my abilities as an instructor. In particular, I have more confidence in my ability to engage my students and encourage them to think critically about course material."

— **Sarah Kramer**, PhD student in the Department of Environmental Health Sciences, Mailman School of Public Health

"To me, the most valuable part of the Inclusive Teaching Seminar was that it gave me the chance to pause, reflect, and rethink my holistic approach to teaching. Over the course of the four sessions, we were exposed to literature and strategies to foster an inclusive teaching and learning environment. I left the workshop with a desire to keep learning as well as an arsenal of well thought-out materials to begin using with my students."

— **Emma Le Pouésard**, PhD student in Art History and Archaeology

LEARNING COMMUNITIES AND JOURNAL CLUBS

CTLgrads Learning Communities

Drawing on support from the CTL, Senior Fellows from the CTL's fellowship programs worked in interdisciplinary pairs to design and co-facilitate three-part discussion

series on teaching and learning topics. This year Senior Fellows hosted the following learning communities for their peers.

Fall 2017

Interdisciplinary Teaching and Learning	Alex Fabrizio , English & Comparative Literature; Senior Teaching Observation Fellow Elizabeth Bailey , Chemistry; Senior Lead Teaching Fellow
On Metacognition: Owning Our Learning	Braden Czapla , Mechanical Engineering; Senior Lead Teaching Fellow Almudena Marín Cobos , Latin American and Iberian Cultures; Senior Lead Teaching Fellow

Spring 2018

Leveling the Playing Field: From Inequality to Inclusivity in Assessment	Evan Jewell , Classical Studies; Senior Lead Teaching Fellow Luciana de Souza Leão , Sociology; Senior Lead Teaching Fellow
Provocative Teaching and Social Media	Niki Kiviat , Italian; Senior Teaching Observation Fellow Victoria Wiet , English and Comparative Literature; Senior Lead Teaching Fellow
Moving Learning Online: Flipping Classrooms and Online Instruction	Neda Bassir Kazeruni , Biomedical Engineering; Senior Teaching Fellow (2016-2017)

163 graduate student participants in CTL learning communities and journal clubs

Here's what they said . . .

"Running a Learning Community was one of the more empowering aspects of the Senior Lead Teaching Fellowship. We got the chance to combine our real-world classroom experience with research into some of the latest pedagogical strategies—many I didn't know of, but now plan on applying in my future teaching, too. In this sense it was really an experience of growth—digging deep into a new area of pedagogy, but also learning how to become an educator about education. Going forward, I now feel confident that I can speak to colleagues outside of my department and beyond about innovative pedagogies that can transform their classroom."

— **Evan Jewell**, PhD student in Classical Studies; CTL Senior Lead Teaching Fellow

"The STEM Education Research Journal Club has been a wonderful opportunity to get graduate students discussing and demystifying educational research. It's helpful to read the research behind the statistics mentioned in teaching workshops, become conversant educational research, and learn from my peers. We've built a community over the semester and I've heard from several other graduate students that they would like to participate in the future."

— **Franziska Landes**, PhD student in the Department of Earth and Environmental Sciences; CTL CIRTL Fellow

STEM Education Research Journal Club

The STEM Education Research Journal Club, facilitated by CTL staff with CIRTLL Fellow Franziska Landes, focused on ways participants can use education research in their fields and beyond to inform their own teaching practices. Graduate students and postdocs were required to read peer-reviewed articles and contribute to the journal club's discussions.

Workshops and Events

The CTL offered the following series for graduate students this year.

FALL 2017 AND SPRING 2018

Teachers' Lounges

Graduate students and CTL staff informally conversed over lunch about teaching approaches, drawing from research and one another's classroom experiences. CTL Lounges met several times each semester.

- **Emotions in the Classroom:** In this three-part series, participants explored topics such as the interplay of student emotions with learning and strategies for teaching from a marginalized position. (Spring 2018)
- **Language Lounge: Race, Gender, and Sexuality in the Language Classroom:** In this two-part series, participants explored the ways that framing of race, gender, and sexuality affect learning and the challenges instructors face while navigating another language and culture with students. (Fall 2017 & Spring 2018)
- **Inclusive Grading:** In this three-part series, conversations explored creative approaches to grading that lessen burdens on graders and increase student agency and morale. (Fall 2017)

Approaching the Job Market Workshops

Graduate students learned about a number of ways to represent their teaching experiences and priorities in applications, interviews, and campus visits.

- **Writing a Teaching Statement:** In this two-part series, participants gathered ideas and drafted components of their teaching statement, and shared full drafts with peers for feedback. (Fall 2017 & Spring 2018)
- **Syllabus from Scratch:** This two-part series introduced participants to the key elements of an effective syllabus and helped them define learning goals and assessment methods to promote student learning. (Fall 2017 & Spring 2018)

- **Writing a Diversity Statement:** In this workshop, participants learned about the components of a reflective and thoughtful diversity statement and brainstormed their first draft. (Fall 2017)
- **Building Your Portfolio:** In this two-part series, participants learned about the content and purpose of a teaching portfolio on the academic job market, and began to assemble portfolios and polish teaching materials through peer review. (Fall 2017)

FALL 2017

Essentials of Teaching and Learning Workshops

Graduate students became familiar with frameworks and tools they can use to facilitate student learning.

- **Organizing Your Teaching: Backward Design:** In this workshop, participants learned about backward design and engaged with strategies to determine and describe learning objectives that align assignments, feedback, and in-class activities.
- **The Interactive Classroom and Inclusive Practices:** In this workshop, participants learned and practiced active learning strategies aligned with learning goals that facilitate student learning and make classrooms more inclusive.
- **Facilitating Student Learning Beyond the Classroom: Grading Problem Sets:** In this workshop, participants learned new approaches to grading problem sets.
- **Facilitating Student Learning Beyond the Classroom: Grading Papers:** In this workshop, participants learned new approaches to grading papers.

SPRING 2018

Advanced Topics in Teaching Workshops

Graduate students looking to acquire new pedagogical frameworks and to innovate their teaching explored various advanced topics in teaching.

- **Presenting Your Expertise:** In this session, participants were introduced to the elements of effective public speaking and presentation visuals.
- **Visual Thinking Strategies: Teaching with Objects:** In this workshop, participants discovered how to present strategies to students to encourage careful visual analysis of primary sources.
- **Introduction to Research Mentorship:** In this session, participants considered parallels to other forms of instruction, and developed structures to help them set the terms of a successful research mentorship.

Teaching Landscapes

This event helped Columbia graduate students explore the transition from graduate careers to faculty positions. Participants heard perspectives on teaching as a junior faculty member from eight recent alumni of Columbia's Graduate School of Arts and Sciences who are teaching across a variety of academic institutions in the greater New York area.

Teaching Transformation Ivy Plus Summit

A small group of selected Columbia University doctoral students traveled as a group to an inter-institutional gathering at Yale University to discuss teaching development and practices. Participants shared artifacts representing unique aspects of their teaching, discussed pedagogical techniques of common interest, and considered teaching development support beyond

their home institutions. This year's Ivy Plus Summit was designed by the CTL at Columbia in partnership with the Sheridan Center at Brown University, the Center for Teaching and Learning at the University of Pennsylvania, the McGraw Center for Teaching and Learning at Princeton, and the Center for Teaching and Learning at Yale University.

Teaching Orientations

This year the CTL held two discipline-focused orientation sessions on the Morningside campus attended by 218 graduate students. The orientations featured concurrent sessions on topics such as establishing classroom policies, grading tactics, running class discussions, and inclusive teaching practices. A campus resources session featured representatives of campus services and support offices providing guidance on common challenges faced by new teaching assistants.



Senior Teaching Observation Fellow **Alex Fabrizio** and Senior Lead Teaching Fellow **Elizabeth Bailey** lead a three-part learning community on interdisciplinary teaching and learning.



Ian Althouse, Assistant Director of Graduate Student Programs and Services, leads the Building Your Teaching Portfolio workshop series.

1,642 graduate student participants in CTL workshops and events

Here's what they said...

"One of the most valuable parts of the CTL workshops is that they provide a space to brainstorm and workshop new teaching ideas in a structured environment. I really appreciate the opportunity to test drive new activities, rubrics, and ideas in workshops before trying them out in the classroom. Because of the CTL workshops I've attended, I am a more intentional teacher. I am able to better plan and implement diverse activities, and I'm also

more capable of adapting as needed in the classroom. The workshops have helped me develop the flexibility to adapt or change activities mid-class by providing me with a larger repertoire of teaching tools. This means that I am better at responding to student needs and classroom dynamics as they are playing out."

— **Valerie Bondura**, PhD student in Anthropology;
CTL Lead Teaching Fellow

Customized Programs

This year CTL staff and Fellows facilitated several customized workshops and information sessions to address the specific graduate student teaching needs and interests in schools, departments, and other academic units.

18 requests for customized workshops

66 of workshops facilitated for departments by Lead Teaching Fellows

183 graduate student participants in customized workshops

Customized Programs for the Columbia University Irving Medical Center

Graduate students and postdocs on the CUIMC campus engaged with the CTL to develop their instructional practices and engage in professional development. This year the CTL supported Lead Teaching Fellows in the School of Nursing and in Mailman School of Public Health's Department of Environmental Health Sciences. Coordinating with the Office of Postdoctoral Affairs, CTL also ran its Evidence-Based Teaching in Sciences and Engineering seminar on the CUIMC campus in Spring 2018. Twelve postdocs and graduate students attended all four sessions and completed related activities such as microteaching practice sessions.

Customized for Academic Units

Schools

Graduate School of Arts and Sciences

- In December and January, the CTL coordinated "Syllabus from Scratch" workshops and individual consultations around GSAS's 2018-19 Academic Year Teaching Scholars application deadlines.
- On May 8, 2018, the CTL was invited by the Graduate Student Advisory Council (now Arts and Sciences Graduate Council) hosted a "Grading Day" for graduate students.

Customized for Arts and Sciences Departments:

- Department of Chemistry: In August 2017, the CTL provided advice for microteaching sessions, helped plan the department's "STAT" Orientation for TAs, and delivered a workshop on active learning as part of the department's orientation.
- Department of History: On November 17, 2017, CTL staff ran a department-specific introduction to the scholarship of teaching and learning, requested by department faculty. CTL staff also ran a customized versions of syllabus design workshops for the Medievalist Working Group on March 30 and April 13, 2018.
- Department of Earth and Environmental Sciences: On January 31, 2018, CTL staff presented a department-specific workshop on managing student expectations and offered on-site teaching consultations at the Lamont-Doherty Earth Observatory.
- Department of English: In March 2018, the CTL ran five required microteaching practice sessions for participants in the Institute for Research on Women, Gender, and Sexuality seminar hosted by the department.
- Department of Latin American and Iberian Cultures: In Spring 2018, the CTL coordinated Language Lounge programming with departmental initiatives for inclusive teaching, and offered teaching statement guidance and a microteaching practice session for participants in the department's didactics seminar.
- Department of Music: The CTL collaborated with the Acting Chair and Vice Chair on a redesign of the department's pedagogy seminar for graduate students, and partnered with the Vice Chair and Chair of Music Humanities in delivering sessions of this seminar during the Spring 2018 semester.
- Department of Physics: The CTL collaborated with the Director of Graduate Studies and TAs to design and implement a new peer observation program in the department for all first-year TAs, and ran a department-specific microteaching session on April 20, 2018.
- Department of Psychology: On November 15, 2017, CTL staff participated in the pedagogic practicum seminar to discuss peer-to-peer teaching support and observation protocols.

School of General Studies

- The CTL collaborated with the Associate Dean of Students and the Academic Resource Center administrator on a special Teachers Lounge in April 2018 that facilitated discussions between graduate students and undergraduate tutors.

Fu Foundation School of Engineering and Applied Science

- The CTL collaborated with administrators on the expansion of the Professional Development and Leadership program for doctoral students by identifying a number of CTL workshops that can help graduate students meet PDL requirements.

School of International and Public Affairs

- In August 2017, the CTL integrated a brief overview of graduate student professional development support into this year's CourseWorks (Canvas) training for new TAs at the School of International and Public Affairs.

Programs, Centers, and Institutes

- Core Curriculum: Core preceptors were integrated into a portion of the CTL's orientation for graduate student instructors on September 1, 2017. At the invitation of the Chair of Literature Humanities, the CTL ran a session for preceptors on inclusive teaching on January 22, 2018.
- Office of Postdoctoral Affairs: The CTL coordinated with the Office of Postdoctoral Affairs on engaging postdocs in the Evidence-Based Teaching Practices in Sciences and Engineering seminars in Fall 2017 and Spring 2018.

Lead Teaching Fellow Events

Anthropology

- Lead Teaching Fellow Valerie Bondura designed and facilitated:
 - "Gender, Inclusivity, and Title IX in the Classroom and the University" (November 15, 2017)
 - "Inclusive Teaching for Better Sections" (February 26, 2018)
- Lead Teaching Fellow Stefan Tarnowski designed and facilitated:
 - "TAs on TAing" (September 7, 2017)
 - "Professors on TAing" (September 14, 2017)
 - "Navigating Your TAship During Third Year" (May 2, 2018)

Applied Physics and Applied Mathematics

- Lead Teaching Fellow Mark England designed and facilitated:
 - "What Teaching at Rikers Taught Me" (November 16, 2017)
 - "Approaching the Teaching Job Market" (March 29, 2018)

Art History and Archaeology

- Lead Teaching Fellow Karin Christiaens designed and facilitated:
 - "Audio/Visual Core: Pedagogical Practices Across Disciplines" (December 6, 2017)
 - "Art Humanities Syllabus & Course Design" (May 2, 2018)
- Lead Teaching Fellow Sofia Gans facilitated:
 - "Questioning our Questions: Reflecting on Stimulating Classroom Discussion" (October 13, 2017)
 - "The Inclusive Art History Classroom" (April 6, 2018)

Astronomy

- Lead Teaching Fellow Kirsten Blancato designed and facilitated:
 - "Exploring Inclusive Teaching in Our Astronomy Classrooms" (November 30, 2017)
 - "Microteaching in Astronomy" (April 2 & 6, 2018)

Biological Sciences

- Lead Teaching Fellow Molly Booth designed and facilitated:
 - "Helping Students Learn Science" (December 15, 2017)
 - "Getting the Most Out of Your Mentorship" (May 1, 2018)
- Lead Teaching Fellow Elena Carazo Arias designed and facilitated:
 - "Let's Talk About Science" (October 25, 2017)
 - "How to Lead a Class Discussion" (March 30, 2018)

Chemistry

- Lead Teaching Fellow Makeda Tekle-Smith designed and facilitated:
 - "What is Mentoring? Teaching Outside the Classroom" (December 5, 2017)
 - "Inclusive Teaching in Chemistry" (April 4, 2018)

Civil Engineering and Engineering Mechanics

- Lead Teaching Fellow Zhenyu Shou designed and facilitated:
 - “Engaging International Students: What Teaching Strategies Have to Offer” (November 10, 2017)
 - “Why Do Students Cheat and What Can We Do to Prevent Cheating?” (March 30, 2018)

Classics

- Lead Teaching Fellow Yuján Claros designed and facilitated:
 - “Inclusive Teaching and Diversity in the Classics Classroom” (November 14, 2017)
 - “Class in the Classics Classroom” (February 9, 2018)

Earth and Environmental Sciences

- Lead Teaching Fellow Colin Raymond designed and facilitated:
 - “Imperfect Courses and What to Do About Them” (October 23, 2017)
 - “Faculty/Postdoc Roundtable: Advice on Teaching in the Earth Sciences Throughout Your Career” (April 5, 2018)

East Asian Languages & Cultures

- Lead Teaching Fellow Abigail MacBain designed and facilitated:
 - “Designing Syllabi for East Asian Studies Workshop” (November 15, 2017)
 - “Fellowship Applications: Another Form of Teaching” (February 21, 2018)

Economics

- Lead Teaching Fellow Lorenzo Lagos designed and facilitated:
 - “Could You Be Loved? A Discussion on How to Enjoy Teaching Economics and Being Appreciated in Return” (November 10, 2017)
 - “Teaching Causality with Graphs: A Visual Tool for Understanding Identification” (February 23, 2018)

English and Comparative Literature

- Lead Teaching Fellow Nicole Gervasio designed and facilitated:
 - “Teaching Outside the Academy” (November 14, 2017)
 - “Core Identity” (March 23, 2018)

- Lead Teaching Fellow Elizabeth McIntosh designed and facilitated:
 - “Good Discussions/Inclusive Teaching” (November 10, 2017)
 - “Feminist Pedagogy in 2018” (April 27, 2018)

Environmental Health Science

- Lead Teaching Fellow Roheeni Saxena designed and facilitated:
 - “Inclusivity Issues in the STEM Classroom” (November 17, 2017)
 - “Teaching Assistant Training” (March 27, 2018)

History

- Lead Teaching Fellow Scot McFarlane designed and facilitated:
 - “How to be a Happy TA?” (November 9, 2017)
 - “Thinking About Lectures” (February 16, 2018)

Italian

- Lead Teaching Fellow Massimiliano Delfino designed and facilitated:
 - “A Great Lesson Plan in 20 Minutes: Strategies and Technologies” (October 26, 2017)
 - “Teaching Beyond Stereotypes: Language and Culture” (March 5, 2018)

Latin American and Iberian Cultures

- Lead Teaching Fellow Mariana Velázquez designed and facilitated:
 - “The Ultimate Enhancer: Mediathread in Language and Content Courses” (October 19, 2017)
 - “Mix It Up: Teaching Diversity and Inclusion Through Language and Culture” (February 26, 2018)

Middle Eastern, South Asian and African Studies

- Lead Teaching Fellow Aseel Najib designed and facilitated:
 - “Engaged Pedagogy: Teaching as a Practice of Freedom” (December 11, 2017)
 - “The Classroom as Active Learning Site: Strategies to Maximize Student” Learning (April 23, 2018)

Mechanical Engineering

- Lead Teaching Fellow Richa Batra designed and facilitated:
 - “Effective Teaching Practices: From the Classroom to the Conference Hall” (November 15, 2017)
 - “Assessments in STEM” (April 18, 2018)

- Lead Teaching Fellow Brandon Zimmerman designed and facilitated:
 - "Know Your Audience: Scientific Communication Outside Graduate School" (October 20, 2017)
 - "Developing Mentoring Skills in Research" (March 28, 2018)
- Lead Teaching Fellow Arvind Srinivasan designed and facilitated:
 - "Providing Feedback - Take Grading To The Next Level" (November 17, 2017)
 - "Building Non-Technical Skills in the STEM Curriculum" (March 22, 2018)

Music

- Lead Teaching Fellow Velia Ivanova designed and facilitated:
 - "The Student as Listener: Bridging Extant Experience and the Classroom" (November 17, 2017)
 - "Expectations and Assessments in the Music Classroom" (February 16, 2018)

Philosophy

- Lead Teaching Fellow César Cabezas designed and facilitated:
 - "Teaching Philosophical Writing" (November 3, 2017)
 - "Syllabus Design: Inclusive Assignments in Philosophy Syllabi" (April 6, 2018)
- Lead Teaching Fellow Brittany Koffer designed and facilitated:
 - "Dealing with Different Personalities in the Classroom" (October 20, 2017)
 - "Inclusive Teaching vs. Set Canon" (March 22, 2018)

Physics

- Lead Teaching Fellow Kiley Kennedy designed and facilitated:
 - "Teaching to the Diverse Classroom: How to Gauge Student Understanding and Respond Effectively" (December 15, 2017)
 - "Active Learning in the Laboratory Classroom and Using Your Feedback" (March 29, 2018)

Psychology

- Lead Teaching Fellow Kate Turetsky designed and facilitated:
 - "Mental Health in the Classroom: Recognizing and Responding to Distressed Students" (November 29, 2017)
 - "Teaching in the 'Replication Crisis': Building Undergraduates' Understanding of Best Research Practices" (April 3, 2018)

Religion

- Lead Teaching Fellow Krista Dalton designed and facilitated:
 - "TAing in the Religion Department" (October 3, 2017)

School of Nursing

- Lead Teaching Fellow Richard Dorritie designed and facilitated:
 - "Inclusive TA-ing: Barrier Breaking Teaching and Learning" (April 3, 2018)

Sociology

- Lead Teaching Fellow Kathleen Griesbach designed and facilitated:
 - "We Can Be Heroes: A Collaborative Workshop on Syllabus Design" (October 26, 2017)
 - "Training Our Best Selves: Culling a Teaching Trajectory and Archive for the Sociology Job Market" (April 6, 2018)

Sustainable Development

- Lead Teaching Fellow Joséphine Gantois designed and facilitated:
 - "Small Teaching Tips for an Improved Teaching Experience?" (November 10, 2017)
 - "Fostering Inclusivity in the Classroom: Leveraging our Interdisciplinary Experience" (March 9, 2018)

Services

The CTL offers a number of free services to help graduate students at Columbia become reflective and effective instructors.

Consultations

Graduate students requested 191 one-on-one consultations with CTL staff to receive support for their teaching and learning needs. Common consultation topics included syllabus design, creating and refining a teaching statement and teaching portfolio, integrating instructional technologies into class activities, lesson planning, and presentation practices.

Teaching Observations

Graduate students requested 17 teaching observations to receive individualized feedback on their teaching. Through a structured process, consultants observed instructors in the classroom and provide suggestions to improve their teaching. The CTL also worked with schools, programs, and departments seeking to refine their peer-teaching observation practice.

17 graduate student participants in CTL Teaching Observations

Here's what they said . . .

"Having two trained observers watch me for an entire lecture provided valuable feedback that validated my teaching practices, and watching a recording of myself made me aware of various idiosyncrasies that crop up when I'm teaching. The most valuable aspect of the observation was having an objective third party share their honest opinion of my teaching. The positive critiques increased my confidence in how I structure and implement class sessions, while the negative critiques gave me specific aspects of my teaching style to improve."

— **Richard Townsend**, PhD student in Computer Science

Microteaching

The CTL offered microteaching sessions for small groups of graduate students and postdocs to rehearse teaching practices and get direct feedback and support. This service was supported this year by the Teagle Foundation, as part of a grant awarded to the Graduate School of Arts and Sciences. Doctoral students who completed CTL training to become Microteaching Facilitators ran the sessions.

67 graduate student participants in CTL Microteaching Sessions

Here's what they said . . .

"By giving me an opportunity to both observe and teach in front of peers, Microteaching made me feel like part of a community: none of us is perfect, and we are all working together to improve. During microteaching sessions, participants often are surprised to realize that they feel more engaged by lessons that ask more of students and less of the instructor. Teaching and reflecting together as a group empowers teachers to worry less about demonstrating personal mastery and to focus more on supporting student learning. My experience as a Microteaching Facilitator has permanently changed my approach to teaching, both in the classroom and as a colleague."

— **Anna Conser**, PhD Student in Classics;
CTL Teagle Teaching Consultant

Mid-Course Reviews

In Spring 2018 the CTL introduced Mid-Course Reviews for graduate student instructors seeking quick, anonymous feedback on their teaching. The confidential service paired instructors with trained peer consultants who solicited feedback directly from students on their course. Participants gained a clear picture of how their teaching practices are impacting students' learning in their course.

5 graduate student participants in CTL Mid-Course Reviews

Here's what they said . . .

"The most valuable part of my mid-course review was that it was such a supportive experience for both me and my students. The students felt really comfortable expressing their views about the course, and they were grateful to be able to have an impact on the class going forward. [CTL's] Ian Althouse gave me a detailed breakdown of what the students appreciated and what they were unclear about—this allowed me to revisit in more detail an activity that had gotten mixed responses in last semester's teaching evaluations. I was able to adjust the activity and I really feel confident about it now."

— **Alana Hein**, PhD student in the Department of History

Service to the Columbia Teaching Community

The Columbia teaching community can attend events to share accomplishments, showcase educational innovations, and discuss timely topics relevant to teaching and learning at Columbia. This year the CTL hosted 396 participants at events open to the entire University community.

University-Wide Events

2018 Celebration of Teaching and Learning Symposium

At the annual Celebration of Teaching and Learning Symposium, the Office of the Provost welcomed the Columbia teaching and learning community to Low Library to celebrate the innovative efforts of faculty and graduate students in transforming their courses and pedagogies. This year 196 participants attended the event on Thursday, February 22, 2018.

The day's agenda kicked off with presentations by innovative faculty, including the Provost's Hybrid Learning Course Redesign and Delivery awardees, and graduate student instructors at Columbia. This year's keynote speaker was Cathy N. Davidson, educator and author of *The New Education: How to Revolutionize the University to Prepare Students for a World In Flux*.

During her keynote, Davidson asked: What should higher education look like, considering the complexities of the world today's students have inherited? After the keynote talk, the Symposium closed with a reception and a poster exhibition.

This year, a strong emphasis was placed on community-building and promoting conversation around the culture of teaching and learning at Columbia. As part of this effort, the CTL reached out to Columbia students to find out: How do you learn best? Ahead of the event, students submitted their insights through an online survey. On February 22, CTL staff engaged with students on College Walk, and showcased a collection of their insights in a visual presentation that Symposium participants could view throughout the day.

Provost's Conversations on Online Learning

This year's Provost's Conversations on Online Learning series kicked off on November 8 with two guests from the University of Illinois at Urbana-Champaign: John Hart, Professor of Computer Science and the Executive Associate Dean of the Graduate College, and Adam Fein, Assistant Provost for Educational Innovation. Hart and Fein participated in a conversation about how the land-grant research university is embracing online education.



Mark Phillipson, Director of Graduate Student Programs and Services, moderates a panel featuring Professor **Caroline Marvin** and students from her *Mind, Brain, & Behavior* course.



Columbia faculty, staff, and students pack into Low Memorial Library during Cathy Davidson's keynote presentation.

On April 12, Ashwin Damera, Executive Director of Emeritus Institute of Management, visited Columbia for a conversation on how his company is using and popularizing Small Private Online Courses (SPOCs). He shared insights on what makes SPOCs different from MOOCs, the future of SPOCs, and where they fit in the higher education landscape.



Ashwin Damera shares insights into online learning with Columbia faculty, staff, and students.

CTL Open House

On September 20 and 22, the CTL hosted Open House events on the Morningside and CUIMC campuses. This year the interactive, expo-style events were designed around the CTL's programming theme: Empowered Teaching, Empowered Learning. This theme framed conversations with visitors about the CTL's program offerings, funding opportunities, digital resources, and media and development projects. CTL staff were present to answer questions and provide practical tips for teaching with learning platforms, inclusive teaching, and using digital media.

Customized Programs and Projects

PROGRAMS

Columbia Libraries

"Inclusive Teaching: Small Changes to Maximize Equity in the Classroom" (November 14, 2017): CTL staff facilitated a custom version of the CTL's "Inclusive Teaching: Small Changes" workshop for Columbia research librarians.

Projects

Columbia University and Slavery

Department of History

URL: columbiaandslavery.columbia.edu

Columbia University and Slavery is a website created by Columbia faculty, students, and staff to present information to the public about Columbia's historical connections with the institution of slavery. This CTL-produced site contains a wealth of material about the University and individuals connected with it, including primary sources, interviews with historians, and a preliminary report authored by Professor Eric Foner, DeWitt Clinton Professor of History. This year the site expanded to include information on the post-1866 era derived from student research in the Department of History's Columbia University and Slavery course.

Edward M. Kennedy Prize

Columbia University Libraries

URL: kennedyprize.columbia.edu/2018-akhtar

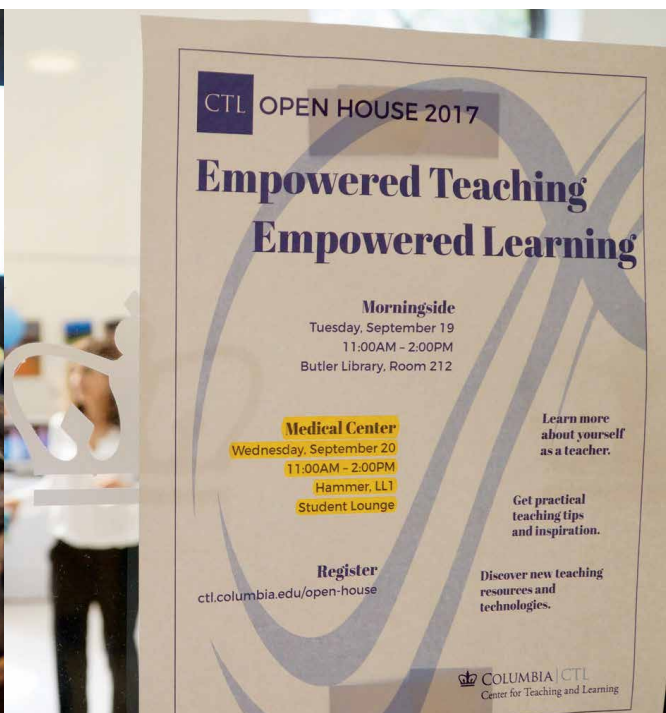
The CTL works with the Kennedy Prize's award-winning playwrights each year to create a public web page with an educational video and resources. This year the winner was Ayad Akhtar's play *Junk*.

University Committee Work

- Bean, Christine Simonian. Steering Committee: Race, Ethnicity, and Inclusion Task Force; Office of University Life.
- Bean, Christine Simonian. Co-Chair of Inclusive Classrooms Working Group: Race, Ethnicity and Inclusion Task Force; Office of University Life.
- Dreher, Susan. Information Technology Leadership Council.
- Hall, Michelle. Curriculum Innovation Committee, College of Dental Medicine.
- Hall, Michelle. Co-Chair of Education Resource Council, Columbia University Irving Medical Center.
- Hall, Michelle. Educate Curriculum Committee, Vagelos College of Physicians and Surgeons.
- Hall, Michelle. Office of Service Learning Advisory Group, Columbia University Irving Medical Center.
- Kingon, Ashley. Educate Curriculum Committee, Vagelos College of Physicians and Surgeons.
- Matiz, Maurice. Provost's Faculty Advisory Committee on Online Learning.
- Matiz, Maurice. Information Technology Leadership Council.



CTL Executive Director **Catherine Ross** stops by group of Symposium participants to discuss strategies for engaging students in their learning.



Staff greet visitors at the CTL Open House event on the Medical Center campus.

- Matiz, Maurice. Academic Technologies Leadership Group.
- Ogden, Stephanie. Academic Technologies Leadership Group.
- Patel, Chandani. Campus Conversations Working Group, Race, Ethnicity, and Inclusion Task Force.
- Phillipson, Mark. Search Committee, Columbia University Libraries, Assistant Director, Scholarly Communication and Projects.
- Phillipson, Mark. Search Committee, Graduate School of Arts and Sciences, Director of GSAS Writing Studio.
- Ross, Catherine. Senate Education Committee.
- Ross, Catherine. Educational Policy and Planning Committee.
- Ross, Catherine. Barnard Teaching and Learning Planning Committee.
- Yellambhatla, Shashi. Information Technology Leadership Council.
- Yellambhatla, Shashi. Academic Technologies Leadership Group.



CTL staff gather insights from students on how they learn best and display the students' insights at the Symposium.

Publications

- Gouse, H., Robbins, R., Mellins, C.A., Pearson, A., Kingon, A., Henry, M., Rowe, J., Remien, R.H., Victor, F., Joska, J.A. "Empowering lay-counsellors with technology: MASIVUKENI, a standardized multimedia counselling support tool to deliver ART counselling." *AIDS and Behavior*, forthcoming.
- Stephanie Shiau, Linda G. Kahn, Jonathan Platt, Chihua Li, Jason T. Guzman, Zachary G. Kornhauser, Katherine M. Keyes, Silvia S. Martins. "Evaluation of a flipped classroom approach to learning introductory epidemiology." *BMC Medical Education*, 2018; 18 (1).

Presentations and Workshops

- Appert, Lucy, Andrew Flatgard, Paul Stengel, and Jessica Brodsky. "Going Off the Beaten Path: Designing and Representing Multiple Learning Pathways in MOOCs." *Learning with MOOCs in Austin, Texas*, October 8-10, 2017.
- Bean, Christine Simonian and Amanda M. Jungels. "Inclusive Teaching: Small Changes to Maximize Equity in the Classroom." Invited workshop for faculty at West Point Military Academy in West Point, NY, May 4, 2018.
- Bean, Christine Simonian and Amanda M. Jungels. "Large Scale Inclusive Teaching Efforts." Invited workshop for department chairs at West Point Military Academy in West Point, NY, May 4, 2018.
- Chen, Christopher. "Teaching Inclusive Teaching." Presentation at the 42nd Professional and Organizational Development (POD) Network Conference in Montreal, Quebec, October 25-29, 2017.
- Guzman, Jason. "Using Canvas to Support the Community of Inquiry Teaching Framework." Presentation at Canvas in the Health Sciences New England Conference and Roundtable in Medford, Massachusetts, April 6, 2018.
- Guzman, Jason and Paul Stengel. "Using the Community of Inquiry to Design Blended Environments with Canvas." Presentation at the Instructurecon Conference in Keystone, Colorado, July 25-28, 2017.
- Flatgard, Andrew, Maurice Matiz, Stephanie Ogden, Paul Stengel, Jose Diaz and Laura Lechner. "Engaging Teachers in MOOCs Through the ConnectED Initiative." *Learning with MOOCs in Austin, Texas*, October 8-10, 2017.
- Irvin, Amanda, Christine Simonian Bean and Suzanna Klaf. "Room for Reflection: Cultivating Faculty Reflective Practice." Presentation at the 42nd Professional and Organizational Development (POD) Network Conference in Montreal, Quebec, October 25-29, 2017.
- Kingon, Ashley. "Columbia's Ready 4 Residency: An Interactive Course with Virtual Patient Cases." Presentation at Canvas in the Health Sciences New England Conference and Roundtable in Medford, Massachusetts, April 6, 2018.
- Patel, Chandani. "Diversity and Inclusive Teaching," Workshop for graduate students at Fordham University, organized by Women in Academia Working Group, April 12, 2018.
- Patel, Chandani. "Graduate Student Peer-to-Peer Mentoring." Roundtable presentation at the 42nd Professional and Organizational Development (POD) Network Conference in Montreal, Quebec, October 25-29, 2017.
- Patel, Chandani. "Critical Pedagogy and Transgressive Instruction." Roundtable presentation at the 42nd Professional and Organizational Development (POD) Network Conference in Montreal, Quebec, October 25-29, 2017.
- Patel, Chandani. "Promoting Diversity and Inclusion in the College Classroom and Beyond." Poster Presentation at the 42nd Professional and Organizational Development (POD) Network Conference in Montreal, Quebec, October 25-29, 2017.

- Phillipson, Mark. "Defining What Matters about the Humanities: Educational Development and Humanistic Approaches." Roundtable presentation at the 42nd Professional and Organizational Development (POD) Network Conference in Montreal, Quebec, October 25-29, 2017.
- Phillipson, Mark. "Contrasting Approaches, Common Values: Preparing Future Faculty for New Teaching Landscapes." Presentation at Association of American Colleges & Universities Annual Meeting in Washington DC, January 25, 2018.
- Stengel, Paul. "Structuring Participatory Design Teams for Purposeful Teaching and Learning in MOOCs." Learning with MOOCs in Austin, Texas, October 8-10, 2017.

Representation at Conferences and Events

- 42nd Professional and Organizational Development (POD) Network Conference. Montreal, Quebec. (October 25-29, 2017)
- Association of American Medical Colleges 2018 Northeast Group on Educational Affairs (NEGEA) Annual Conference. Long Island, New York, April 26-28, 2018.
- Association of American Colleges & Universities Annual Meeting. Washington DC, January 25-26, 2018.
- Canvas in the Health Sciences New England Conference and Roundtable. Medford, Massachusetts, April 6, 2018.
- CIRTl Fall 2017 In-Person Meeting at Johns Hopkins University. Baltimore, Maryland, October 12-13, 2017.
- CIRTl@UR Research Day. Rochester, New York. August 17, 2017.
- edX Global Forum. Whistler, British Columbia. December 5-6, 2017.
- Instructurecon Conference. Keystone, Colorado, July 25-28, 2017.
- Ivy Plus Teaching Center Meeting. New Haven, Connecticut, May 3-4, 2018.
- Learning with MOOCs Conference. Austin, Texas, October 8-10, 2017.
- Rutgers University Tyler Clementi Center Academic Colloquium. New Brunswick, New Jersey, October 26, 2017.
- Teaching Transformations Ivy Plus Summit. New Haven, Connecticut, April 20, 2018.

Committee Representation

- Althouse, Ian. Co-coordinator for Career Fair, POD Network.
- Bean, Christine Simonian. Diversity Committee, POD Network.
- Irvin, Amanda. Scholarship Committee, POD Network.
- Jungels, Amanda M., Steering Committee: Race, Ethnicity and Inclusion Task Force, Office of Student Life.
- Patel, Chandani. Outreach Coordinator for Diversity Committee, POD Network.

Engagement with Networks

Center for the Integration of Research, Teaching, and Learning (CIRTL) Network

In 2016, Columbia University joined the Center for the Integration of Research, Teaching and Learning (CIRTL) Network. CIRTL was established in 2003 by the National Science Foundation to improve teaching skills and increase the diversity of future university faculty in science, technology, engineering and mathematics (STEM) fields. Columbia graduate students and postdoctoral fellows in STEM and social science disciplines are invited to participate in local on-campus and national online cross-network programs. Though the Network emphasizes its role in preparing future faculty, faculty new to teaching benefit from CIRTL as well.

This year CIRTL at Columbia continued to foster local learning communities for STEM graduate students and postdocs that promote effective teaching. The CTL developed the new Evidence-Based Teaching for Science and Engineering Seminar for graduate students and postdocs as an intensive introduction to backward design in STEM teaching. The seminar was hosted in Fall 2017 at the Morningside campus and in Spring 2018 at CUIMC in collaboration with the Office of Postdoctoral Affairs. To better connect graduate students and postdocs to the research of teaching and learning in the sciences, the CTL began hosting the STEM Education Research Journal Club, which ran throughout the year. Both efforts were led by Chris Chen, Assistant Director of Graduate Student Programs and Services, and Franziska Landes, the 2017-2018 CIRTL fellow.

In Fall 2017, the CTL offered a two-session workshop entitled “Leveraging Open Source Principles and Resources for Teaching and Learning in STEM,” facilitated by Columbia faculty Kyle Mandli (Applied Mathematics) and Andreas Mueller (Data Science). This cross-network workshop was offered online and open to participants at all 40 CIRTL Network member institutions.

Columbia also contributed to the wider CIRTL network by co-instructing two cross-network semester-long online courses: Research Mentor Training and the CIRTL Journal Club. These CIRTL offerings give graduate students and postdocs opportunities to interact with peers across the CIRTL Network and to participate in a variety of teaching development events beyond those which the CTL offers locally in person.

Ivy Plus Teaching and Learning Centers

The CTL participated in the Ivy Plus Teaching Centers Annual Meeting, hosted by Yale University’s Center for Teaching and Learning, in New Haven, Connecticut from May 3–4, 2018. The meeting brought together directors and staff from teaching and learning centers to reflect on their work and share practices. Topics of discussion included impacting the culture of teaching and learning on campus, the languages of teaching and learning centers, engaging faculty, inclusive teaching/diversity, integrating pedagogy with technology, and discipline-specific initiatives.

Executive Director’s Presentations and Invited Talks

- Council of Deans: September 18, 2017
- Education Deans: September 25, 2017
- Junior Faculty Panel on Diversity and Inclusion: October 4, 2017
- Department of Civil Engineering and Engineering Mechanics: November 14, 2017
- Educational Policy and Planning Committee: January 25, 2018
- Arts and Sciences Department Chairs: February 23, 2018; March 8, 2018
- Fu Foundation School of Engineering and Applied Science Annual Faculty Meeting: May 7, 2018

Appendix A:

CTL Leadership and Staff

Leadership Council

Soulaymane Kachani , Vice Provost for Teaching and Learning; Senior Vice Dean and Professor, Fu Foundation School of Engineering and Applied Science	Catherine Ross , Executive Director
Michelle V. Hall , Director, CUIMC Programs and Services	Amanda Irvin , Director of Faculty Programs and Services
A. Maurice Matiz , Senior Director, Instructional Technologies	Mark L. Phillipson , Director, Graduate Student Programs and Services
Sandesh Tuladhar , Assistant Provost for Online Education	

Below is a list of staff at the Center for Teaching and Learning.

Directors

Catherine Ross , Executive Director	Michelle V. Hall , Director, CUMC Programs and Services
Amanda Irvin , Director of Faculty Programs and Services	A. Maurice Matiz , Senior Director, Instructional Technologies
Mark L. Phillipson , Director, Graduate Student Programs and Services	

Communications and Outreach

Caitlyn Esposito , Manager

Assessment and Evaluation

Melissa Wright , Associate Director
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Faculty Programs and Services

Amanda Irvin , Director of Faculty Programs and Services	Lucy Appert , Associate Director
Suzanna Klaf , Associate Director	Christine Simonian Bean , Assistant Director
Aurora Collado , Learning Designer	Andrew Flatgard , Learning Designer
John C. Foo , Assistant Director, Science and Engineering	Kenny Hirschmann , Senior Learning Designer
Amanda M. Jungels , Assistant Director	Andre Laboy , Learning Designer
Lakshmi Nair , Learning Designer	Jessica Rowe , Senior Program Specialist
Paul Joseph Stengel , Senior Learning Designer	Mike Tarnow , Learning Designer, Science and Engineering

CUMC Programs and Services

Michelle V. Hall , Director	Jason Guzman , Learning Designer
Ashley Kingon , Senior Learning Designer	Angie Lee , Learning Designer

Graduate Student Programs and Services

Mark L. Phillipson , Director	Ian Althouse , Assistant Director
Christopher Chen , Assistant Director, Science and Engineering	Chandani Patel , Assistant Director

Instructional Technologies

A. Maurice Matiz , Senior Director	Stephanie Ogden , Associate Director
Shashi Yellambhatla , Associate Director	Vincent Aliberto , Media and Production Lead
Kyle Bean , Project Manager	Nick Buonincontri , Programmer
Michael R. Deleon , Media and Production Lead	Susan Dreher , Senior Software Engineer
Andrew Flatgard , Learning Designer	Jon Hanford , Video Technical Specialist
Laura Lechner , Digital Video Specialist	Zarina Mustapha , Senior Front-end Developer
Nik Nyby , Programmer	Marc A. Raymond , Senior Designer
Ben Silver , Senior Tech Specialist	

Administration

Sarah Carswell , Executive Assistant	Teresa Gonzalez , Administrative Coordinator
Elizabeth Hernandez , Programs Coordinator	

Appendix B:

CTL Advisory Board

Soulaymane Kachani, Co-Chair Vice Provost for Teaching and Learning; Senior Vice Dean and Professor, Fu Foundation School of Engineering and Applied Science	Catherine Ross, Co-Chair Executive Director of the Center for Teaching and Learning
Carlos Alonso Dean, Graduate School of Arts and Sciences; Morris A. & Alma Schapiro Professor in The Humanities	Sarah Cole Parr Professor of English and Comparative Literature; Dean of Humanities, Faculty of Arts and Sciences
Allison DeWitt Student, Graduate School of Arts and Sciences	Ron Drusin Rolf H. Scholdager Professor of Medicine at the Columbia University Medical Center; Vice Dean for Education, College of Physicians and Surgeons
Pat Grieve Nancy and Jeffrey Marcus Professor of the Humanities, Department of Latin American and Iberian Cultures	Fredrick Harris Professor of Political Science; Dean of Social Sciences, Faculty of Arts and Sciences
Julia Hirschberg Percy K. and Vida L. W. Hudson Professor of Computer Science; Chair, Department of Computer Science	Kris Kavanaugh Associate Vice President, Columbia Libraries
Julie Kornfeld Associate Professor of Epidemiology at the Columbia University Medical Center; Vice Dean for Education, Mailman School of Public Health	Ana Paulina Lee Assistant Professor of Latin American and Iberian Cultures; Member of the Junior Faculty Advisory Board
Angela Lee Associate Dean; Adjunct Associate Professor of Business	Ellen Meier Associate Professor of Practice, Teachers College
Janet Metcalfe Professor of Psychology	Dennis Mitchell Vice Provost for Faculty Diversity and Inclusion; Associate Professor of Dental Medicine; and Senior Associate Dean for Diversity, College of Dental Medicine
Roosevelt Montas Associate Dean/Director of the Center for the Core Curriculum; Lecturer of English and Comparative Literature	Barclay Morrison Professor of Biomedical Engineering; Vice Dean of Undergraduate Programs, Fu Foundation School of Engineering and Applied Science
Letty Moss-Salentijn Edward V. Zegarelli Professor of Dental Medicine (in Anatomy and Cell Biology); Vice Dean for Academic Affairs in the College of Dental Medicine	Abhay Narayan Pasupathy Associate Professor of Physics
Justin Pearlman Chief of Staff, Office of the Provost	Joshua Schenk Undergraduate Student and Co-Chair of the University Senate Student Affairs Committee

Brent Stockwell Professor of Biological Sciences and Chemistry	Anne Taylor John Lindenbaum Professor of Medicine; Vice Dean, Academic Affairs, Vagelos College of Physicians and Surgeons; Senior Vice President for Faculty Affairs and Career Development at the Columbia University Medical Center
Ann Thornton Vice Provost and University Librarian	Miguel Urquiola Professor of Economics and International and Public Affairs
Greg Wawro Professor of Political Science	

Appendix C:

Data Summary of AY 2017-2018 Programs and Services

1a. Unique Individuals Served by the CTL

By University Status/Affiliation

Graduate students	1,096
Faculty	1,220
Administrators and university staff	466
Postdocs	77
Research scientists	53
Undergraduate students	11
Total	2,923

By School

Arts and Sciences	1,231
Barnard College	90
College of Dental Medicine	311
Vagelos College of Physicians and Surgeons	204
Columbia Business School	44
Columbia Law School	56
Fu Foundation School of Engineering and Applied Science	319
Graduate School of Journalism	19
Jewish Theological Seminary	78
Mailman School of Public Health	173
School of Architecture, Planning and Preservation	27
School of International and Public Affairs	112
School of Nursing	77
School of Social Work	68
Teachers College	77
Other academic units	320
Total Columbia-affiliated individuals	2,926
Total external visitors	224
Total unique individuals served	3,150

1b. CTL Interactions with Clients

By University Status/Affiliation

Faculty	3,398
Graduate students	3,133
Administrators and university staff	1,181
Postdocs	211
Research scientists	109
Undergraduate students	13
Total	8,045

By School

Arts and Sciences	3,745
Barnard College	202
College of Dental Medicine	90
Vagelos College of Physicians and Surgeons	679
Columbia Business School	93
Columbia Law School	73
Fu Foundation School of Engineering and Applied Science	659
Graduate School of Journalism	54
Jewish Theological Seminary	238
Mailman School of Public Health	504
School of Architecture, Planning and Preservation	46
School of International and Public Affairs	264
School of Nursing	267
School of Social Work	213
Teachers College	274
Other academic units	651
Total Columbia-affiliated interactions	8,052
Total external visitor interactions	296
Total interactions	8,348

2. Programs and Events

Client Interactions By Program Type

Workshops	2,596
University-wide events	395
Teaching orientations	301
Institutes	228
Seminars	263
Total program and event interactions	3,783

3. Services

Client Interactions By Program Type

Consultations	1,370
Assessment consultations	102
Graduate student professional development consultations	67
Instructional technology consultations	88
Project consultations (Hybrid, MOOC, etc.)	404
School/Department/Program consultations	28
Teaching consultations	681
Platform training and support (Canvas, EdBlogs, Mediathread, etc.)	740
Total service interactions	3,480

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