

Annual Report

Center for Teaching and Learning
Office of the Provost

2020-2021

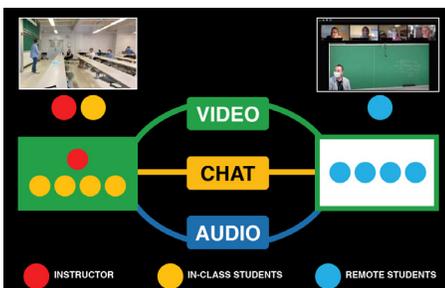
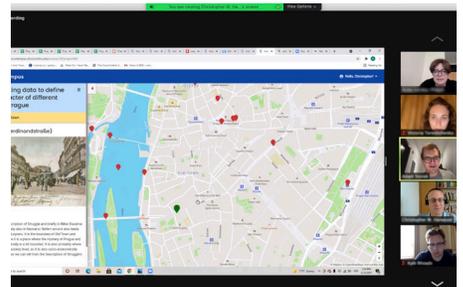
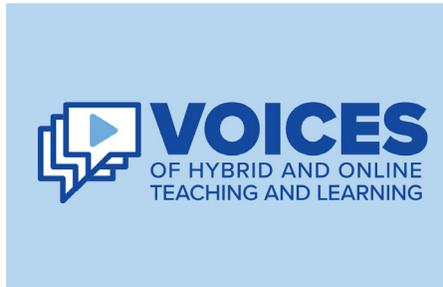
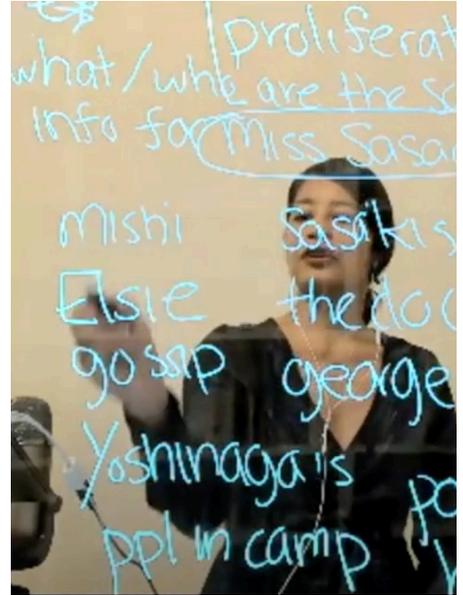
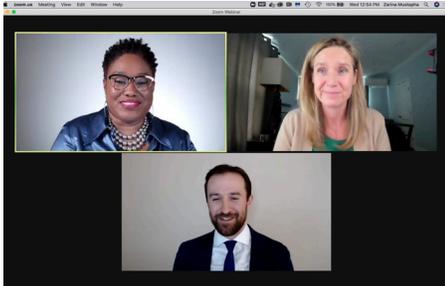


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Our Mission

The Center for Teaching and Learning (CTL) partners with faculty, students, and colleagues across the University to support excellence and innovation in teaching and learning. The CTL is committed to advancing the culture of teaching and learning at Columbia through all of its programs, services, and resources.

The CTL understands teaching as a critical practice, driven by inquiry, experimentation, reflection, and collaboration. We promote pedagogy that is inclusive, learner-centered, and research-based. We support the purposeful use of new media and emerging technologies in the classroom and online to foster the success of Columbia's instructors and students.

Our Vision

Our vision is a Columbia teaching community that innovates in evidence-based instructional practices and technology use, promotes and participates in the research on learning, and commits to creating inclusive and equitable learning environments.



Letter from the Provost



Mary C. Boyce
Provost

Dear Colleagues:

I am delighted to introduce the sixth annual report of the Columbia University Center for Teaching and Learning (CTL), which plays a vital role in supporting the mission of the institution by fostering innovative approaches in teaching and learning.

Although I am new to my role as Provost, succeeding Interim Provost Ira Katznelson in July 2021, I know the CTL well through my prior role as Dean of Columbia Engineering since 2013. Throughout my deanship, I came to understand what an essential resource the CTL is, bringing evidence-based pedagogical strategies to the classroom in a way that significantly improved our students' learning.

Although as dean I saw the CTL's impact at the school level, from my current post I see the exceptional University-wide work it does, particularly in helping to navigate the institution through the pandemic. The team was agile and committed to helping all of us take the greatest advantage of hybrid and online teaching formats. Adapting to ever-changing circumstances, the CTL staff worked to meet instructors where they were, consulting in person, remotely, and in HyFlex formats. The strategies they disseminated have changed the way many of us teach and learn in remarkable ways.

The transformations they catalyzed go far beyond helping us adapt to new technological tools. They offered resources on anti-racist pedagogies and teaching techniques, helping us build a better educational environment for students and empowering our instructors to lead the charge in our collective pursuit of inclusive excellence.

In the following pages, you will read about these successes, told through examples at all levels: You will meet graduate instructors taking advantage of professional development programs, faculty redesigning courses using new pedagogical approaches, and the second cohort of Provost's Senior Faculty Teaching Scholars, partnering with CTL leadership to innovate the culture of teaching and learning within their own departments, schools, and beyond.

As we return to the classroom this fall, I believe we will discover that new approaches tested during lockdown will continue to spark innovative ways of educating. Thanks to the support of CTL staff, our faculty and graduate instructors will have ample tools to adapt their findings into even stronger in-person teaching.

Sincerely,

Mary C. Boyce

Provost

Professor of Mechanical Engineering

Letter from the Vice Provost



Soulaymane Kachani
Vice Provost for Teaching,
Learning, and Innovation

Dear Colleagues:

The Center for Teaching and Learning serves as an essential resource for faculty, students, and colleagues across Columbia University. Over the past eighteen months, the CTL demonstrated flexibility and ingenuity, providing vital and personalized teaching support for instructors through every period of transition—to online teaching, to HyFlex teaching, and most recently, back to in-person teaching. The CTL held a wide array of programs and services in different modalities in order to accommodate the diverse needs of our instructors.

The CTL also continues to demonstrate leadership in the fields of inclusive and equitable teaching and developed resources and sessions to guide the Columbia teaching community in anti-racist pedagogies and teaching practices. The Center facilitated several initiatives and events to strengthen teaching and learning collaborations at Columbia and beyond—a task that became especially important due to hybrid teaching and learning conditions.

Thirty-five innovative Teaching and Learning Grants were awarded to faculty across Columbia's campuses this year, funding interventions ranging from experiments with new pedagogical tools, to full course and program redesigns. Throughout the pandemic, the CTL staff worked tirelessly with faculty awardees on their projects to create the best learning experiences for students. SOLER, the Science of Learning Research Initiative, also launched the Provost's SOLER Seed Grants Program to fund and support faculty-led Discipline-Based Education Research projects.

We owe many thanks to our collaborators in departments, schools, the Office of the Provost, and partner administrative offices. The CTL is only one part of a community dedicated to carrying on in a period when every aspect of teaching was challenged—from the logistics of identifying course modalities for student registration to outfitting classrooms for multiple modalities. Our allies in this work gave prodigiously of their time and resources to keep instructors teaching and students learning. Much of this work may go unheralded, but we in the CTL are enormously grateful to our faculty, graduate instructors, and colleagues across the administrative landscape. We were inspired by their creative thinking and diligent efforts and wish them all hearty congratulations.

I hope that the activities highlighted in this report encourage you to meet and connect with our talented CTL staff and inspire your own teaching and learning as we move forward into a new and exciting chapter in higher education.

Sincerely,

Soulaymane Kachani
Vice Provost for Teaching, Learning, and Innovation

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 collaborates with instructors, departments, and schools across Columbia's campuses to achieve the best teaching and learning experiences for instructors and their students, no matter the conditions in which the teaching and the learning are taking place. Our foundational value of inclusion undergirds the research-based, learner-centered, and reflective practices that we share with the teaching community at Columbia, and it became even more critical in the last twelve months as we navigated issues around equity and accessibility in a radically altered higher education landscape.

In this annual report, you will see highlights of our work across the broad spectrum of Columbia University's teaching and learning contexts. You will also see instructors sharing the work they have done in response to the ongoing pandemic teaching conditions. If there was ever a moment when instructors across Columbia's campuses felt it imperative to share their teaching practices and successes and to work together to support each other in teaching, it was during this past academic year of extended remote and hybrid conditions. The CTL played an integral role in supporting instructors through this transition, and in order to enable them to support each other, we created the Voices of Hybrid and Online Teaching and Learning initiative.

Like many units across Columbia, we experienced many firsts over the last year. We created the first fully remote Celebration of Teaching and Learning Symposium, inviting Columbia instructors to present their best teaching ideas and strategies. We launched our first podcast, Dead Ideas in Teaching and Learning, and we published articles highlighting what students had to say about inclusive online teaching, and how dead ideas can help us return to campus with a better understanding of teaching and learning. We also launched what seems like hundreds of new resources, things like: Anti-Racist Pedagogy In Action: First Steps, Inclusive Teaching Online, Transitioning to In-Person Teaching, and Teaching in Flexible Learning Spaces, just to name a few.

I would like to personally thank all of the instructors who gave so generously of their time and wisdom to support Columbia's commitment to teaching excellence, even during a pandemic! We hope you find inspiration in their work and the work of the CTL, which we are pleased to share with you herein. We look forward to collaborating with you in the upcoming year.

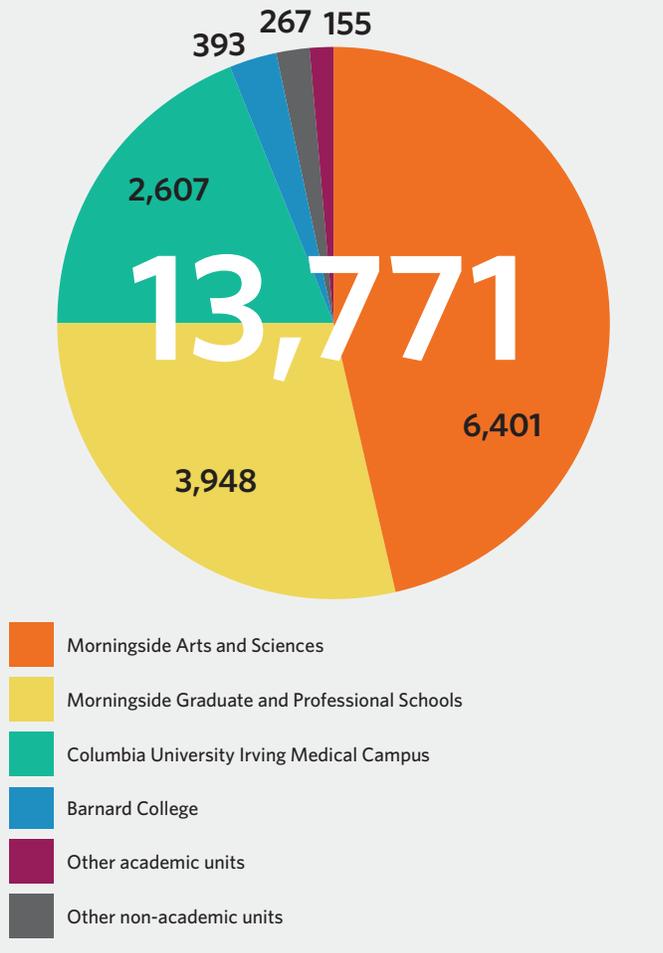
Sincerely,

Catherine Ross

Executive Director of the Center for Teaching and Learning

Annual Highlights

Interactions with Columbia-Affiliated Individuals



Service to Columbia University

5,076 consultations and service interactions with Columbia-affiliated individuals

2,668 Columbia-affiliated individuals in on-demand CTL courses

57 Graduate student fellows and teaching consultants

35 teaching and learning projects funded by the Office of the Provost

Service to Columbia University and Beyond

2,814,000 minutes watched on ColumbiaLearn YouTube Channel

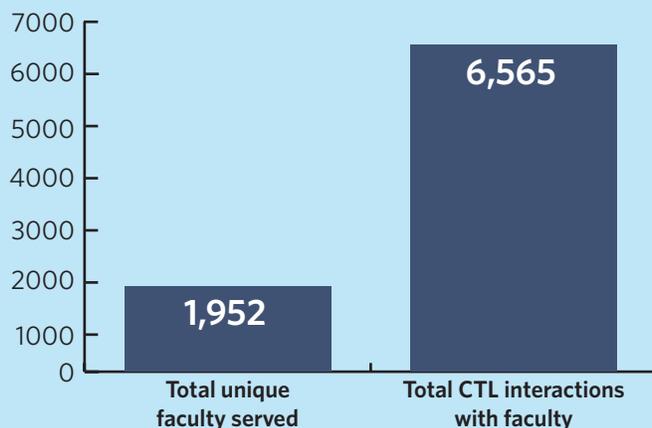
21 CTL-produced MOOCs active on edX

96,347 active learners on CTL-produced MOOCs on edX

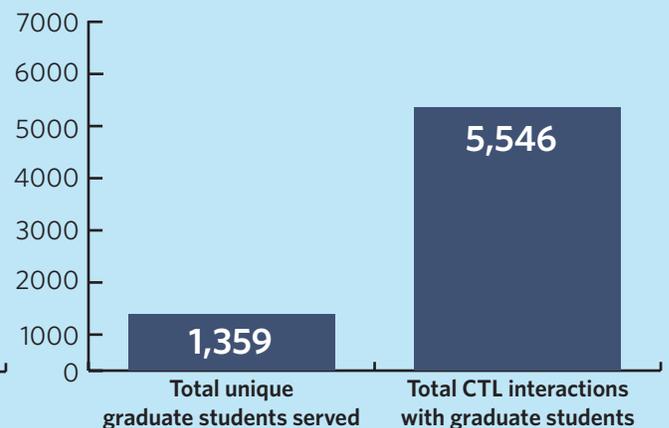
100 interactions with external visitors

43 CTL-developed software applications with 324,650 users and 1,732,122 page views

Service to Faculty



Service to Graduate Students



CTL-Wide Accomplishments

Celebration of Teaching and Learning Symposium

The Office of the Provost and the Center for Teaching and Learning welcomed the Columbia community to the first fully online Celebration of Teaching and Learning Symposium from March 15-17, 2021. The symposium showcased imaginative and effective teaching initiatives at Columbia during an unprecedented year, featuring daily instructor panels, Q&A sessions, and a gallery of instructor and student stories. Participants engaged with innovative educators, shared their insights, and gained inspiration for their own teaching.

The three Columbia instructor panels were as follows:

“Engaging Students in Seminar Classes: Adapting to Hybrid and Online Teaching” with Manan Ahmed, Associate Professor of History, Hannah Weaver, Assistant Professor of English & Comparative Literature, and Zachary Domach, PhD Candidate in Religion.

“Engaging Students in Large Classes: Adapting to Hybrid and Online Teaching” with Denise Cruz, Associate Professor of English & Comparative Literature, and Amanda Sarafian, Assistant Professor of Rehabilitation and Regenerative Medicine (Occupational Therapy).

“Engaging Students in Lab or Simulation Classes: Adapting to Hybrid and Online Teaching” with Beth Barron, Associate Professor of Medicine at Vagelos College of Physicians & Surgeons, and Yevgeniy Yesilevskiy, Lecturer in the Discipline of Innovation and Design, SEAS.

197 participants attended the event.

To watch recordings of the panels:

<http://ctl.columbia.edu/2021symposium/>

“I found it so inspiring to hear more about the incredible things colleagues were doing to create engaging and inclusive classes for students during this very difficult time. It was so invigorating and heartening to see!”

- Attendee

7,177 pageviews on Symposium and Voices initiative webpages



Provost's Senior Faculty Teaching Scholars

The Provost's Senior Faculty Teaching Scholars work in partnership with the CTL to support, change, and innovate the culture of teaching and learning within their own departments and schools as well as across campus. Deans nominate senior faculty who are both outstanding teachers and well-respected researchers in their disciplines.

The second cohort of Senior Faculty Teaching Scholars were as follows:

Sharon Akabas, Institute of Human Nutrition, Vagelos College of Physicians & Surgeons

Janis Cutler, Department of Psychiatry, Vagelos College of Physicians & Surgeons

Thomas Groll, School of International and Public Affairs

David Hwang, School of the Arts

Eleanor Johnson, Department of English and Comparative Literature, Arts and Sciences

Helen Lu, Department of Biomedical Engineering, Fu Foundation School of Engineering and Applied Science

Josef Sorett, Departments of Religion and African American and African Diaspora Studies, Arts and Sciences

Weiping Wu, Graduate School of Architecture, Planning and Preservation

Tian Zheng, Department of Statistics, Arts and Sciences

Several Teaching Scholars submitted reflections for the CTL's Voices of Hybrid and Online Teaching and Learning initiative to share with the Columbia community:

Weiping Wu created a written and video reflection to share how in Fall 2020 she engaged students in her online graduate seminar, Chinese Urbanism in Global Context, by using Perusall, a collaborative reading and learning platform. Perusall helped her create a collaborative online experience for international students.

<https://ctl.columbia.edu/voices/submissions/weiping-wu/>

Thomas Groll developed a video with the CTL demonstrating how he taught his Macroeconomics course in Spring 2021 in a HyFlex delivery mode, showing the use of new classroom technology and how it worked for his students both in-person and online.

<https://ctl.columbia.edu/voices/submissions/thomas-groll/>

Janis Cutler and **Catherine Parker**, a medical student at the Vagelos College of Physicians and Surgeons, created a video together in which they discuss how they transitioned their Introduction to Psychiatry course to an online format in Spring 2020 and how they partnered to foster student engagement and learning—specifically, how senior medical students were invited to participate in the education of their junior colleagues.

<https://ctl.columbia.edu/voices/submissions/cutler-parker/>



Thomas Groll, Provost Senior Faculty Teaching Scholar and Lecturer in the Discipline of International and Public Affairs, shares how he is using the HyFlex delivery mode in his Macroeconomics course.

Provost's Senior Faculty Teaching Scholars

Additional Teaching Scholar work included:

Dr. Cutler also developed an interdisciplinary approach to introduce first-year medical students to the complexities of organizing and finding meaning in their future patients' histories. This new approach will be piloted in Fall 2021. Humanities faculty will co-lead discussion groups with medical school faculty to facilitate students' experiences with their chosen medium (literature, poetry, film). Students will be encouraged to grapple with non-linear narratives.

Sharon Akabas focused on the integration of anti-racist pedagogy across CUIMC. In partnership with Michelle Hall from the CTL, **Leah Hooper**, Senior Director of Educational Initiatives at the Mailman School of Public Health, and **Jonathan Amiel**, Senior Associate Dean for Innovation in Health Professions Education at the Vagelos College of Physicians and Surgeons, CUIMC, developed the the first Anti-Racist Education Institute (AREI), offered July 26-30, 2021.

The AREI program was designed for school and departmental leaders charged with implementing curricular and pedagogical reforms in diversity, equity, and inclusion. AREI focused on themes based on confronting bias, addressing systemic racism in academic and healthcare settings, and course design and facilitation strategies to create anti-racist change in learning environments. Participants collaboratively developed school and departmental anti-racist pedagogy pilot training programs.

Dead Ideas in Teaching and Learning Podcast

In October 2020, the CTL launched its first podcast, *Dead Ideas in Teaching and Learning*, hosted by CTL Executive Director Catherine Ross. The mission of the podcast is to encourage instructors, students, and leaders in higher education to reflect on what they believe about teaching and learning. In each episode, guests are invited to share their discoveries of “dead ideas”—ideas that are not true but that are often widely believed and embedded in the pedagogical choices we make.

The theme of the podcast series originates from the article “The Tyranny of Dead Ideas in Teaching and Learning” (*The Sociological Quarterly*, 2011) by Diane L. Pike, Professor of Sociology at Augsburg University, who served as the first guest on the podcast. Episodes were released bi-weekly and are approximately 30 minutes in length. Episodes included:

“The Tyranny of Dead Ideas in Teaching and Learning” with **Diane L. Pike**

“Neuromyths in Teaching and Learning” with **Michelle Miller**, Professor of Psychology at Northern Arizona University and author of *Minds Online: Teaching Effectively with Technology* (2014)

“Dead Ideas in Science Teaching” with **Carl Wieman**, Nobel laureate and Professor of Physics and Education at Stanford University

“Columbia Undergraduates on Dead Ideas in Learning” with Columbia students **Mae Butler**, **Haya Ghandour**, **Jennifer Lee**, and **Kalisa Ndamage**

“Dead Ideas in Grading” with **Jenny Davidson**, Professor of English and Comparative Literature at Columbia

“Assessment For and As Learning” with **Jonathan Amiel**, Senior Associate Dean for Innovation in Health Professions Education, and **Aubrie Swan Sein**, Director of the Center for Education Research and Evaluation and Associate Professor of Educational Assessment at CUIMC

“Ungrading” with **Jesse Stommel**, co-founder of *Hybrid Pedagogy: The Journal of Critical Digital Pedagogy* and contributing author to *Ungrading: Why Rating Students Undermines Learning (and What to Do Instead)* (2020)



CTL Executive Director and podcast host **Catherine Ross** records an episode in a sound booth, prior to the pandemic.

“The Syllabus” with **William Germano** and **Kit Nicholls**, authors of *Syllabus: The Remarkable, Unremarkable Document That Changes Everything* (2020)

“Online Teaching and Learning” with **Roxanne Russell**, Director of Online Education at Mailman School of Public Health

“What Inclusive Instructors Do” with **Tracie Marcella Addy**, **Derek Dube**, **Khadijah A. Mitchell**, and **Mallory SoRelle**, authors of *What Inclusive Instructors Do: Principles and Practices for Excellence in College Teaching* (2021)

“Community in Teaching: A Conversation with Columbia Graduate Students” with **Diana Newby**, **Thomas Preston**, and **Ami Yoon**

“One Year Later: Learning in a Pandemic with Two Columbia Undergraduate Students” with **Sajan Bar** and **Michelle Yao**

To learn more and listen to the podcast:
<https://ctl.columbia.edu/podcast/>

8,337 podcast downloads for Seasons 1 and 2

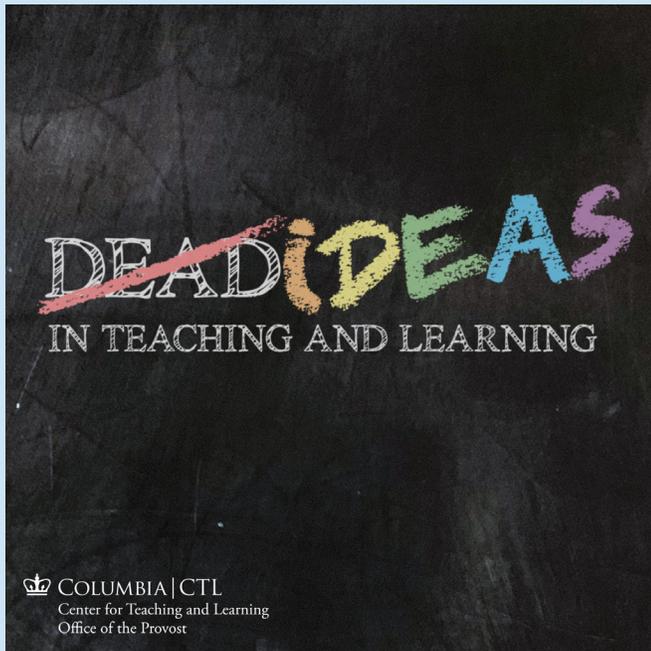
Dead Ideas in Teaching and Learning Podcast

"The CTL podcast *Dead Ideas in Teaching and Learning* provided inspiration and helped me connect with other educators such as Jesse Stommel, Diane Pike, and Jenny Davidson who think along the same lines as I do. They all talk about the importance of tapping into students' intrinsic motivation and engagement with learning, which is central to my philosophy of teaching."

- Babi Kruchin, Lecturer in Language, American Language Program, School of Professional Studies



Catherine Ross interviews Jesse Stommel remotely on the podcast.

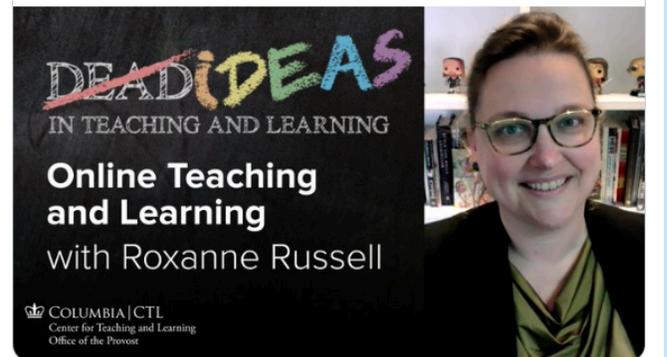


Roxanne Russell @Online_Edu_Rox

Energizing to talk with Catherine Ross about this singular moment for online learning after being immersed in it for so long. #onlineeducation #highered Highly recommend the entire series.

Columbia | CTL @ColumbiaCTL · Mar 11

What dead ideas do instructors and students hold about teaching & learning online? How can online activities benefit student engagement & inclusion? In this podcast, we speak with Roxanne Russell @Online_Edu_Rox, Director of Online Education @ColumbiaMSPH ctl.columbia.edu/podcast/

A book cover for "DEAD IDEAS IN TEACHING AND LEARNING" with the subtitle "Online Teaching and Learning with Roxanne Russell". The cover features the same chalk-style title as the previous image, with "DEAD" crossed out. To the right of the book cover is a photo of Roxanne Russell, a woman with glasses and a green scarf, smiling. The Columbia CTL logo is at the bottom left of the book cover.

11:57 AM · Mar 11, 2021 · Twitter for iPhone

A tweet from **Roxanne Russell**, Director of Online Education, Mailman School of Public Health, who was interviewed on the podcast.

Thank-a-Prof Initiative

The Thank-a-Prof/Thank-a-TA initiative aims to celebrate impactful teaching and learning at Columbia University and to recognize professors and TAs for their contributions. During the intense and uncertain world of COVID-19, a thank you note could be especially meaningful. In the 2020-2021 academic year, students across Columbia's departments and campuses submitted 1,094 thank you notes online to the CTL, which were forwarded to professors and TAs

To browse more thank you notes:

<https://ctl.columbia.edu/about/2021symposium-testimonials>

Sample thank you note:

"[...] you have truly gone above and beyond in the kindness, care, and love of learning you have instilled in each of your students in Contemporary Civilization (CC) this semester. It is spectacularly hard to keep students engaged in virtual school, and the fact that you had an entire class genuinely excited to engage in class and discuss Nietzsche at 4 PM on a Wednesday afternoon is a testament to your skill as an educator. I have truly enjoyed every single class we had together, and am so thankful to have had you as my CC professor this year. Thank you so much for all of your insights, and all of the amazing class discussions that you fostered amongst our class."

- Krishna Menon writing to Professor Annie Pfeifer, Assistant Professor of Germanic Languages, Course: Contemporary Civilization

Professor's response:

"I was very moved by the gratitude and support of the students—they were truly a bright spot in an otherwise difficult year. The appreciation goes both ways; I couldn't have asked for a better, kinder, and more engaged set of students to teach during a global pandemic. It's hard to imagine, but we managed to get to know each other well even though we were only connecting through Zoom. The students were incredibly motivated and focused to read, think, and discuss the texts together in spite of the challenging conditions. Most importantly, they were flexible and deep thinkers who were interested in bringing these texts to life and making connections between texts to our own contemporary civilization through discussions around race, gender, and equity. We all helped each other rise to the occasion and, thanks to help from the CTL, we found different ways of creating an online community—whether it be through breakout rooms, group projects, or 1-1 zoom discussions."

- Annie Pfeifer

Thank-a-Prof Thank-a-TA

Thank you.

Provost's Conversation on Online Learning

For this year's Provost's Conversation on Online Learning (PCoOL), the Chancellor and the Provost of Purdue University Global were invited to discuss how they are building and providing greater access to affordable, high-quality, world-class online education. Chancellor Frank Dooley and Provost Jon Harbor joined Vice Provost Soulaymane Kachani for a presentation and discussion over Zoom on January 7, 2021.

Provost's Conversations on Online Learning (PCoOL) feature public talks by leading experts and peers on the future of education, specifically around online education.

Through such conversations, we hope to learn and share knowledge to enhance teaching and learning efforts at Columbia not only online but also on campus to ensure the richest and most dynamic educational experience for all of our students. Past PCoOL guests have included the CEOs of edX, OpenClassrooms, 2U, and Coursera, and leaders in online education from the University of Pennsylvania and the University of Illinois at Urbana-Champaign.

View the presentation recording:
<https://youtu.be/vRLBpYQntTg>

Learn more:
<https://online.columbia.edu/pcool/>



PURDUE UNIVERSITY GLOBAL – Chancellor Frank Dooley & Provost Jon Harbor

Provost Conversation on Online Learning – Columbia University

January 7, 2021

Purdue University Global Chancellor Frank Dooley presents at the Provost's Conversation on Online Learning.

Science of Learning Research Initiative (SOLER)

The SOLER Initiative—a research division of the Office of the Vice Provost for Teaching, Learning, and Innovation (VPTLI)—is dedicated to facilitating the systematic generation of insights about teaching and learning in the context of Columbia courses and degree programs through the process of Discipline-Based Education Research (DBER).

In 2020, SOLER launched the Provost's SOLER Seed Grants (PSSG) program to fund and support faculty-led DBER projects. PSSG awardees receive up to \$5,000 in funding and extensive in-kind support. SOLER lowers the barriers for faculty to perform impactful DBER work within their departments by managing and collaboratively developing project elements such as study design, research instrument development, Institutional Review Board approval, data security and analysis, and dissemination of results. Some PSSG awards fund and assist faculty projects that are simultaneously supported by the Provost's Teaching and Learning Grants.

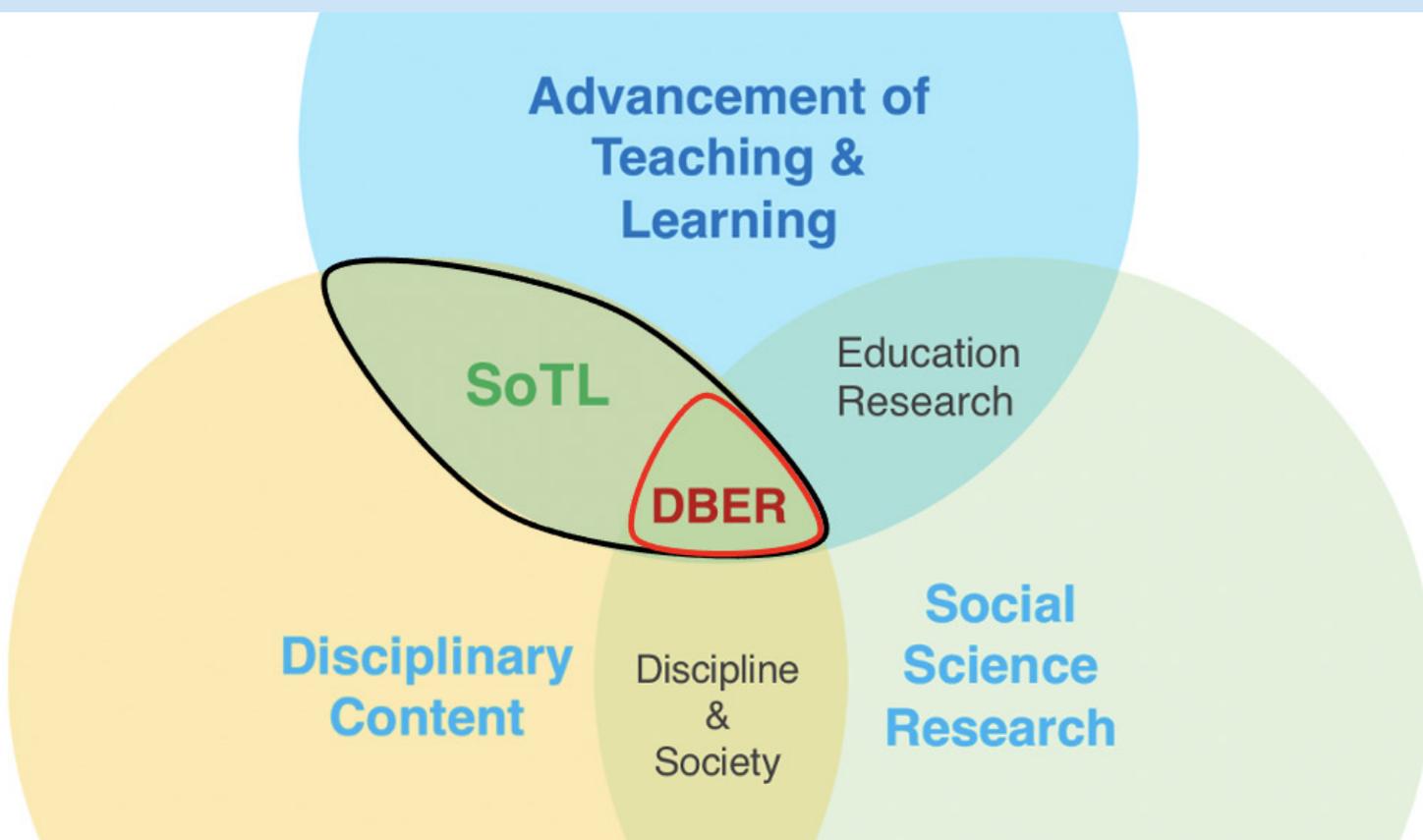
In April 2021, SOLER invited Columbia faculty and administrators to attend a virtual information session about the second PSSG cycle. At the information session, led by SOLER Program Director Adam Brown, attendees learned about the framework through which SOLER supports faculty-led DBER efforts at Columbia. Two 2020 PSSG faculty awardees—Brent Stockwell, Professor of Biological Sciences and of Chemistry, and Alfredo Spagna, Lecturer in Psychology—shared their insights and presented concrete examples of their PSSG-supported DBER projects.

View the presentation:

<https://soler.columbia.edu/content/events-presentations>

To learn more about SOLER:

<https://soler.columbia.edu/>



The intersection of research focus for SOLER.

Ongoing Support for Teaching through Disruption and Beyond

With an entire academic year of pandemic teaching now behind us, many people are asking what lies ahead for teaching and learning in a post-pandemic world. Predictions abound about how HyFlex classrooms, and educational technologies like Zoom and LMS platforms, will continue to shape teaching as we and our students return to campus. At the Columbia CTL, we are already preparing our instructors not so much for a return to 'normal' but for a return to better!

In this section and throughout this report you can see the many ways in which the CTL supported instructors and how instructors supported each other by sharing their teaching ideas through the CTL platforms.

Anti-Racist Pedagogy

Anti-Racist Pedagogy Resource and Reading Group

The CTL developed a new resource, "Anti-Racist Pedagogy in Action: First Steps," to provide a synthesis of anti-racist pedagogy research and practice for Columbia faculty and graduate instructors who strive to incorporate anti-racist pedagogy into their personal teaching practices. To access the resource:

<https://ctl.columbia.edu/resources-and-technology/resources/anti-racist-pedagogy/>

The CTL also led reading groups in the fall and spring semesters for faculty committed to learning more about and incorporating anti-racist pedagogy and practice into their teaching. To read more about this, visit the Support for Faculty section on page 30.

Learning Community: Pedagogies of Race and Oppression

The CTL partnered with the Graduate School of Arts and Sciences Office of Academic Diversity and Inclusion to offer a Learning Community for graduate students on Pedagogies of Race and Oppression. Over the course of two sessions in Fall 2020 and three sessions in Spring 2021, two cohorts of graduate students collectively engaged with topics in pedagogy and practice as they relate to race and marginalization, with particular emphasis on anti-racist and anti-oppressive pedagogical practices. To read more about this, visit the Support for Graduate Students section on page 46.

CUIMC: Introduction to Anti-Racism Pedagogy Discussion Session

CTL staff facilitated a discussion about anti-racist pedagogy for CUIMC instructors, exploring curricular

design strategies that help achieve anti-racist student learning outcomes.

CUIMC: Teaching and Assessing Anti-Racism Competencies Workshop

In a new workshop co-facilitated by Michelle Hall, CTL Director of CUIMC Programs and Services, and Samuel C. Quiah, Associate Director, Center for Education Research and Evaluation (CERE), participants discussed anti-racist pedagogy and explored curricular design strategies that help achieve anti-racist student learning outcomes. To read more about this, visit the Support for CUIMC Faculty section on page 42.

Voices of Hybrid and Online Teaching and Learning

The Voices of Hybrid and Online Teaching and Learning initiative, which ran throughout the academic year, showcased faculty and student reflections in the forms of video, audio, and text. Submissions focused on hybrid, HyFlex, or fully online teaching, curricular innovations, and learning experiences at Columbia during the pandemic.

The CTL aimed to highlight the amazing work that both instructors and students were doing to adapt and succeed in this unique teaching and learning environment. Submissions were featured on the CTL website, in weekly newsletters and social media campaigns, and showcased as an online gallery during the 2021 Celebration of Teaching and Learning Symposium. There were 28 submissions total.

Read, watch, listen to Voices submissions:

<https://ctl.columbia.edu/voices/submissions/>

Courses to Support Hybrid and Online Teaching

Hybrid & Online Teaching Institute

The CTL ran the Hybrid & Online Teaching Institute (H&OTI) on an ongoing basis throughout the 2020-21 academic year. The institute guides faculty through adapting their courses from face-to-face to online or hybrid formats. The institute consists of asynchronous content hosted in CourseWorks followed by a synchronous online experience with CTL staff and other faculty participants. Together, these experiences provide faculty with a comprehensive toolkit they can apply to their own course context whether this may be a seminar, small lecture, or large lecture class.

Supporting Hybrid and Online Learning and Teaching

Developed in Summer 2020, Supporting Hybrid & Online Learning & Teaching (SHOLT) is an on-demand, self-paced course designed to help Columbia graduate student instructors in support roles develop effective teaching practices in online and hybrid courses. Four online modules cover topics including teaching as a team online, creating community with [or among] students in online contexts, engaging students in active and collaborative learning online, and assessing student learning online.

1,137 registrations for the Hybrid & Online Teaching Institute

305 enrollments for Supporting Hybrid and Online Learning and Teaching

Resources for Teaching in All Modalities

The CTL developed the 29 online resources listed below to support Columbia instructors teaching in hybrid, HyFlex, and fully online formats, as well as to help instructors transition to in-person teaching. They can be found at:

ctl.columbia.edu/teachingonline

In addition, the CTL offered a wide array of synchronous and asynchronous services and programs in both hybrid and online formats to support faculty and graduate



“The major takeaway from this experience has been the overwhelming utility of online platforms for directed self-learning and engagement. In addition, the redesigned paradigm allowed us to reach a greater number of students, increasing our enrollment to 20 students every month. The other major takeaway for me was the amount of time needed to design shorter, high yield lectures with succinct learning points. CTL was instrumental in helping me with strategies to distill the content delivered.”

— **Pallavi Utukuri**, Assistant Professor of Radiology, CUIMC, on her experience with hybrid teaching in 2020



Hybrid/HyFlex Teaching Strategies

Hybrid/HyFlex Teaching & Learning

What is HyFlex? How does it work? What are some strategies for getting started? This guide helps instructors answer these questions by providing an overview and practical strategies for setting up HyFlex activities.

Five Tips for Hybrid/HyFlex Teaching with All Learners in Mind

Five tips for instructors who are teaching hybrid/HyFlex courses where the majority of students will be participating in face-to-face (synchronous) class sessions while a few students will be joining remotely.

“The CTL was very helpful in the transformation to remote instruction as I took its asynchronous course [Hybrid and Online Teaching Institute] and had a one-on-one consultation on revising my syllabus, goals, and strategies. During the semester, I benefited from a class observation and related conversation about my pedagogy including advice on what to improve and what to continue doing [...] Based on those lessons, I used several strategies to establish a relationship with students.”

— **Vicky Murillo**, *Professor of Political Science and International and Public Affairs*

“I have always appreciated how CTL courses... help me think of pedagogy and teaching in a systematic, organized, and measurable way. This course, too, helped me organize my thoughts as in ‘helping me put my teaching self together.’”

— **Participant in SHOLT**

student instructors. You can read more about these programs in the Support for Faculty section on page 30 and the Support for Graduate Students section on page 46.

Transition to In-Person Teaching

Transition to In-Person Teaching

In preparation for the transition to more in-person teaching, this resource encourages instructors to reflect back on their pandemic teaching experiences and identify what approaches they plan to carry forward.

Teaching in Flexible Learning Spaces

Flexible learning spaces encourage adaptable pedagogies and approaches to teaching and learning. While these spaces vary in nature, this resource offers some best practices that can be applied regardless of space..

Reflecting On Your Experiences with Remote Teaching: Making Meaning of Pandemic Teaching

Whether you are seeking to recover the joy of teaching after an online pivot during the pandemic, be a better online teacher, be more responsive to student needs, prevent teaching burnout, or plan ahead to teach an in-person, hybrid, or fully online course, it can be important to hit pause. This resource provides suggestions, tips, and questions to guide the self-reflective process.



CTL Associate Director **Suzanna Klaf** and Assistant Director **Rebecca Petitti** celebrate the success of facilitating a HyFlex session of the Hybrid & Online Teaching Institute with **Jenna Lawrence**, Lecturer in Ecology, Evolution and Environmental Biology.

Community Building in Online and Hybrid/HyFlex Courses

This research-informed guide provides strategies for building community in online and hybrid/HyFlex courses for both synchronous and asynchronous formats.

Supporting Hybrid/HyFlex Courses: A Resource for Course and Teaching Assistants

This resource provides an overview of HyFlex support approaches to supplement training provided in departments and schools.

Online Teaching Strategies

Active Learning for Your Online Classroom: Five Strategies Using Zoom

Simple strategies that combine active learning principles with online tools to promote student access and engagement with content, facilitate sharing of ideas, and encourage reflection on learning.

Adapting Your Face-to-Face Course to a Fully Online Course: A Guide

Suggestions for adapting the design of a face-to-face course by focusing on online capabilities, the intentional integration of technology, and emphasizing learner-centered and inclusive practices.

Asynchronous Learning Across Time Zones

Tips for setting up an online course that gives students and instructors the flexibility to engage with course material, activities, and each other from anywhere and at any time.

Collaborative Learning Online

Introduces the benefits of collaborative learning online, highlights some strategies for effective collaborative learning, and overviews some of the Columbia-supported tools to facilitate collaborative learning online.

Engaged Lecturing: Five Tips for Planning Live Online Classes

Five tips that emphasize the importance of keeping the focus on the students' experience and what they should be doing during a live online class session.

Graduate Student TAs: Adapting Your Teaching

Resources that graduate student instructors can draw on to stay connected to students and maintain learning in classes in which they are acting as Teaching Assistants.

Inclusive Teaching and Learning Online

Strategies for inclusive teaching online, structured around

the five principles of inclusive teaching as outlined in CTL's Guide for Inclusive Teaching at Columbia.

Learning Through Synchronous and Asynchronous Discussion

This resource presents key considerations in class discussions and offers strategies for how instructors can prepare and engage in effective synchronous and asynchronous classroom discussions.

Maximizing Student Learning

This resource provides strategies to be a successful online student, including tools to help implement these strategies.

Planning for Online Lab Sessions

Suggestions for considering the role of lab sessions in students' learning, along with specific tactics and resources instructors can employ to help provide meaningful online lab sessions.

Seven Strategies for Success in Six-Week Immersive Courses

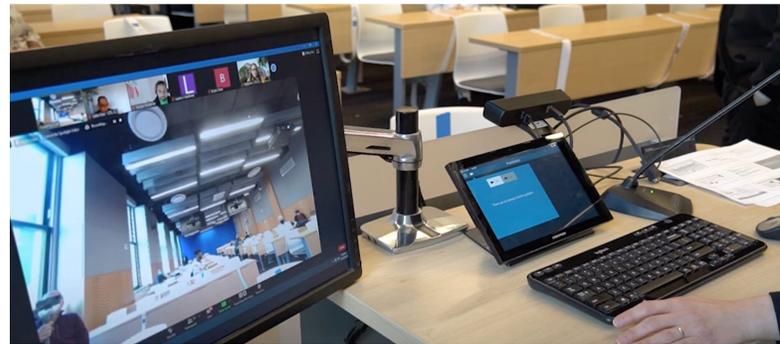
This resource distills the seven most impactful strategies to employ when designing an immersive course.

Teaching Large Online Courses Effectively and Efficiently

How do you maximize student learning, uphold academic integrity, and manage grading loads in a large online course? This resource highlights four strategies.

Working with TAs Online

Teaching Assistants can be invaluable partners for faculty and other course instructors. This resource offers recommendations and considerations for faculty who are working with TAs to run courses online.



View from the podium of a HyFlex session facilitated by CTL staff.

Teaching with Technology

Virtual Office Hours

An overview of Zoom and CourseWorks Conferences capabilities for online office hours.

Creating Assignments and Grading Online with Gradescope

This resource guides instructors through creating assignments and grading online with Gradescope, a tool designed to streamline and standardize the grading of paper-based, digital, and coding assignments.

Video Production Best Practices

Advice for video set up, recording, editing, and publishing, including technical considerations for creating active and engaging classroom experiences using video.

Grading in Online Courses at Columbia: Tips and Strategies

This resource is structured by common grading needs and provides “how to” details using CourseWorks (Canvas) and Gradescope.

Creating Online Exams

An overview of CourseWorks tools, options, and settings that can help implement exams efficiently and fairly and make the exam experience positive for both instructors and students.

Tools for Teaching Online

Teaching with Zoom

Guidelines for establishing a Zoom account, scheduling class sessions, hosting a class, taking attendance, and additional tools in Zoom.

Security and Privacy in Zoom

An overview of the Zoom settings and controls recommended by Columbia University IT (CUIT) and CTL to help ensure safety and privacy and to help keep unwanted external participants from entering your class space.

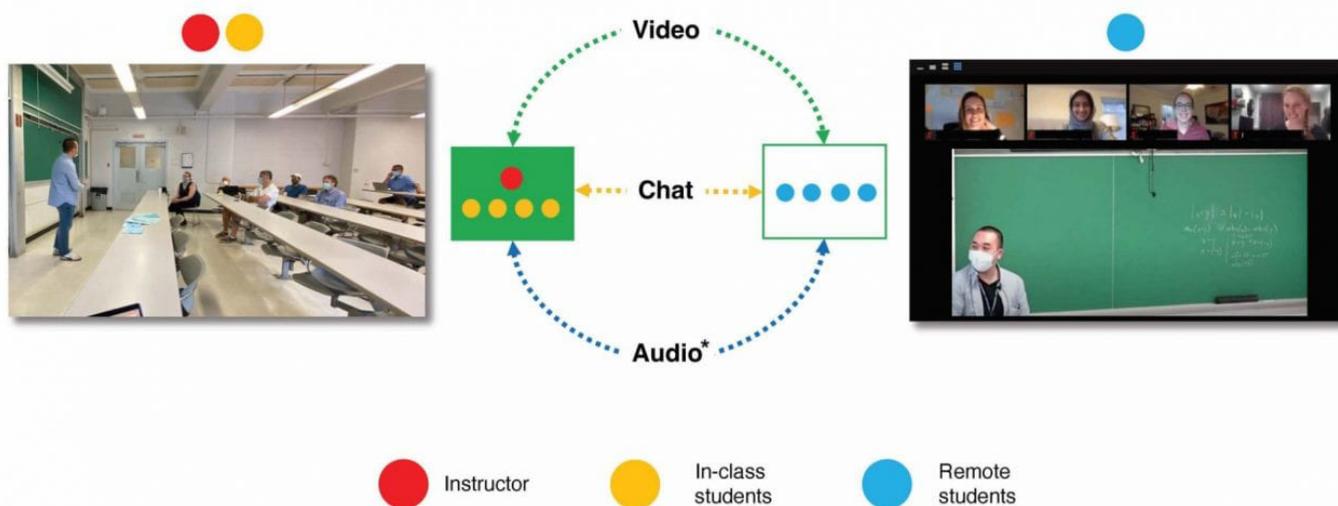
Teaching with Panopto

Guidelines on how to use Panopto to securely host a variety of media to share with students, including uploading and recording videos. This CourseWorks-integrated tool also supports in-video quizzes, video editing, screen captures, and more.

Teaching with Courseworks

How to set up discussions, take attendance, create and grade assignments, and create online exams and quizzes using CourseWorks, Columbia’s online learning management system.

350,432 total CTL website pageviews from July 1, 2020 - June 30, 2021, compared to last year during this time: a 64% increase.



*Two-way audio feed may not be available in all classrooms

The interplay of a HyFlex class, demonstrated in the CTL’s resource, “Hybrid-HyFlex Teaching & Learning.”

Provost's Teaching and Learning Grants

The Office of the Provost provided funding opportunities through five grant programs for faculty interested in integrating new educational methods and technologies into their classrooms and learning environments. The CTL offered logistical, organizational, and instructional support for faculty awarded funding from the Office of the Provost. For more details on the CTL's involvement in the Provost's Teaching and Learning Grant projects, see page 66 in the Instructional Technologies section.

Innovative Course Design Grants

The Office of the Provost's Innovative Course Design Grants 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 2021 AWARDEES

Below is the list of projects that will be developed and released in the 2021-2022 academic year with support or advice from the CTL.

Jean-Marie Alves-Bradford, *Associate Clinical Professor of Psychiatry*

PROJECT: "Incorporating Technology in an Advocacy, Allyship, and Upstander Skills Curriculum for Medical Students"

Dolores Barbazán Capeáns, *Lecturer, Latin American and Iberian Cultures* **Leyre Alejaldre Biel**, *Lecturer, Latin American and Iberian Cultures*

PROJECT: "Brainscape Lifelong Learning for Spanish Intermediate II: Developing Fluency in Spanish Language Acquisition through the Applications of Theories from the Science of Learning"

Nikhair Gaikwad, *Assistant Professor, Political Science*

PROJECT: "A Case Study Pedagogical Approach to International Political Economy"

Sarah Hansen, *Senior Lecturer, Chemistry*

PROJECT: "Mixing Modalities in the General Chemistry Laboratory"

Pascale Hubert-Leibler, *Lecturer, French and Romance Philology*

PROJECT: "Transferring the Contents of the Newly Redesigned Intermediate French I Course (UN FREN 2101) Onto an EdBlogs Website"

Ben Orlove, *Professor, School of International and Public Affairs; Director of Master's Program in Climate & Society, Department of Earth and Environmental Sciences* **Cathy Vaughan**, *Associate Director for Monitoring & Evaluation, Columbia World Project*

PROJECT: "Using Project-based Learning to Improve Student Learning about Climate-related Risk"

Nancy Owen, *Instructor, School of Nursing* **Karol DiBello**, *Associate Professor, School of Nursing*

PROJECT: "Telehealth Clinical Simulation for Public Health Nursing"

Amanda Sarafian, *Assistant Professor, Vagelos College of Physicians and Surgeons*

PROJECT: "Utilizing Case-based Teaching and Simulation Technology to Engage Students and Develop Clinical Competency in a Pediatric Occupational Therapy Graduate Course"

Zhongqi Shi, *Senior Lecturer, East Asian Languages and Cultures*

PROJECT: "Teaching Business Chinese Language and Culture with Podcasts"

Alfredo Spagna, *Lecturer, Psychology*

PROJECT: "Building a Bridge Between Theory and Practice: Blended Learning Meets Behaviora! Neuroscience"

Nakul Verma, *Lecturer, Fu Foundation School of Engineering and Applied Science* **Ansaf Salieb-Aouissi**, *Senior Lecturer, Fu Foundation School of Engineering and Applied Science*

PROJECT: "A Fast and Effective AI Approach for Student Feedback in Proof-Based Computer Science Courses"

SPRING 2020 AWARDEES

Below is the list of faculty who released courses in the 2020-2021 academic year with support or advice from the CTL.

Isobel Contento, *Mary Swartz Rose Professor of Nutrition and Education* **Pam Koch**, *Associate Research Professor of Nutrition*

PROJECT: "Facilitating Students' Learning the Processes of Designing Effective Environmentally Supportive Nutrition Education"

Denise Cruz, *Associate Professor of English and Comparative Literature*

PROJECT: "Reimagining the Humanities Lecture in a Transnational, Post-Pandemic World"

Karol DiBello, *Assistant Professor, School of Nursing*

PROJECT: "Flipped Classroom Redesign Proposal: Care Coordination 2020"

Dana March-Palmer, *Assistant Professor of Epidemiology and Associate Dean for Educational Initiatives*

PROJECT: "Redesign for Student Mastery and Success in Research Methods: Quantitative Foundations (PUBHP6031)"

Nataliya Pilipenko, *Assistant Professor in Medicine and Psychiatry*

PROJECT: "Clinical Interviewing in Primary Care Settings"

Ansaf Salleb-Aouissi, *Senior Lecturer in the Discipline of Computer Science* **Nakul Verma**, *Lecturer in the Discipline of Computer Science*

PROJECT: "A Fast and Effective AI Approach for Student Feedback in Proof-Based CS Courses"

Christopher Tedeschi, *Associate Professor of Emergency Medicine*

PROJECT: "Wilderness, Environmental, and Disaster Medicine: Reimagining an Austere Medicine Curriculum"

Alexandra Watson, *Lecturer, First-Year Writing / English*

PROJECT: "Room to Improve: Digital Tools for Measuring Student-Writer Growth"

Ovita Williams, *Associate Director of Field Education, Adjunct Lecturer, School of Social Work* **Courtney Cogburn**, *Associate Professor of Social Work* **Ericka Echavarria**, *Associate Director of Field Education, Adjunct Professor, School of Social Work*

PROJECT: "FIVE SESSIONS: Practice Dynamics of Power, Race, Oppression, and Privilege through Simulation-Based Learning"

Yevgeniy Yesilevskiy, *Lecturer of Mechanical Engineering* **Jeffrey Kysar**, *Professor and Chair of Mechanical Engineering*

PROJECT: "Introducing Experimental Design to Promote Active Learning"

Innovative Course Module Design Grants

The Innovative Course Module Design 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.

"The CTL helped shape my Innovative Course Module Design project both directly and indirectly. In-person consultation with CTL staff was valuable in finetuning my proposal, which investigates to what extent peer feedback and individual teacher feedback help international students become better writers of academic English. Suzanna Klaf provided support and a set of critical eyes for the proposal, which will receive funding in the next academic year."

— **Babi Kruchin**, *Lecturer in Language, American Language Program, School of Professional Studies*

SPRING 2021 AWARDEES

Below is the list of projects that will be developed and released in the 2021-2022 academic year with support or advice from the CTL..

R.J. Jenkins, *Curriculum Design Specialist, Columbia University Center for Veteran Transition and Integration, School of General Studies*

PROJECT: "#TappedPotential Narrative History as a Tool for Building Persistence Among Student Veterans".

Babi (Barbara) Kruchin, *Lecturer, American Language Program, School for Professional Studies*

PROJECT: "Improving International Students' Writing Skills through Reviews and Teacher Feedback in an Academic Writing Course"

Faculty Spotlight:

Denise Cruz, Innovative Course Design Recipient,
Presidential Award for Outstanding Teaching Recipient
Associate Professor English and Comparative Literature

Denise Cruz worked with the CTL to transform her lecture course Introduction to Asian American Literature into a synchronous and blended online format. Below, Denise shares three reflections on her experiments in course design. While the experience of teaching during the pandemic led to these reflections, ultimately she is interested in the aspects of a blended format that can be utilized in the post-pandemic classroom.

Reflection #1: Blended format is an opportunity to enhance core scaffolding of skills and assessment.

In prior versions of my course, the overall design was presented in part through the syllabus, but it functioned primarily as a schedule of readings, units and assignments. Our blended format led me to reconsider the syllabus and to use a modular approach, using CourseWorks more actively. I organized the course in modules, so they're released in a staggered series. The modules allowed me to enhance my approach to teaching literary methods and writing skills. For example, I created instructional videos on effective note-taking, literary analysis skills, and elements of an academic essay. I recorded the readings in part to prevent screen fatigue but also to encourage close and careful listening as itself a skill. The modular design allowed me to make learning objectives transparent and to integrate the lecture, the assessments, and the objectives along with the readings, into one cohesive form.

Reflection #2: Blended format can lead to enhanced student participation, community, and collaboration.

Students in large lectures often discuss the difficulty of participating, especially in larger group discussions. The blended format gives opportunities for more low stakes participation including live word clouds, live chat contributions that can be transcribed on paper, or a light board by the use of asynchronous discussion boards. These participation components could only improve rather than detract from a student's grade. I found that on a regular basis I had between 40 and 60 students participating per week. In part, because they knew that I would incorporate their contributions in the lecture itself. If anything, our online environment reminded me of the importance of giving my students a reason to come to class—to create

a community. I promoted a mediated conversation in the chat before class started with low stakes questions. I also put them into five-person virtual success pods so they had people to communicate with after class.

Reflection #3: As an instructor, model creative and intellectual vulnerability and risk-taking in course assessments.

The pandemic was a time when everyone felt raw, imperfect and stretched too thin. My recognition of these difficult conditions and the varied strategies we've used to do what we can was also a reminder that learning is difficult, especially now, but also all the time. I modeled the importance of playfulness and self-care as conducive to learning. For example, I did a live mud mask while the students gave me feedback on an introduction I had written. I pretended that we all went to a theater in New York when I taught David Henry Hwang's *M. Butterfly*. This emphasis on creativity led to fantastic final projects, including a graphic novel interpretation, a video essay that applied critical theory to multiple texts, and an interactive virtual museum. In the end, my students left me with so much inspiration because of the way they work together to foster community, curiosity and creativity, not to rebuild what we had before but instead to imagine something new.

This spotlight is a condensed version of Denise Cruz's video presentation at the 2021 Celebration of Teaching and Learning Symposium.

<https://ctl.columbia.edu/about/2021symposium/>



Catherine McManus, Assistant Professor of Surgery, Vagelos College of Physicians and Surgeons **Roman Nowygrod**, Professor of Surgery, Vagelos College of Physicians and Surgeons

PROJECT: "Unveiling the Hidden Curriculum: An Innovative Approach to Teaching Professionalism in the Operating Room during the Medical Student Surgery Clerkship"

Kathleen Mullen, Assistant Professor, School of Nursing

PROJECT: "Interactive Learning of Trauma-Informed Postpartum Assessment"

Shaoyan Qi, Lecturer, Department of East Asian Languages and Cultures

PROJECT: "Exploring Task-based Language Testing in an Introductory Chinese Course"

Dara Steinberg, Assistant Professor of Medical Psychology, Pediatrics Department and Psychiatry Department, Vagelos College of Physicians and Surgeons **Nobuko Hijjiya**, Herbert and Florence Irving Professor, Pediatrics Department, Vagelos College of Physicians and Surgeon **Megan Askew**, Postdoctoral Clinical Fellow, Pediatrics Department, Vagelos College of Physicians and Surgeon

PROJECT: "Training the Future Front Line: A Module to Teach Medical & Psychology Students Teamwork to Promote Multidisciplinary Collaboration in the Care of Pediatric Patients"

SPRING 2020 AWARDEES

Below is the list of projects developed and released in the 2020-2021 academic year with support or advice from the CTL.

Helen de Pinho, Assistant Professor of Population and Family Health

PROJECT: "Digital Instruction for Public Health Opinion Writing in the MPH Core Curriculum"

Sara Kross, Lecturer in Discipline, Director of the Master's Program, Ecology, Evolution and Environmental Biology (E3B)

PROJECT: "Conservation in the City: Exploring Topics in Conservation Biology Through Problem-Based Learning in New York City Parks"

Victoria Malaney-Brown, Director of Academic Integrity, Columbia College and Fu Foundation School of Engineering and Applied Science

PROJECT: "Wearing the Crown with Honor: Academic Integrity Expectations at Columbia College & Columbia Engineering"

Guadalupe Ruiz-Fajardo, Senior Lecturer, Latin American and

Iberian Cultures

PROJECT: "The Columbia Corpus of Spanish Conversations: 7 New Clips"

Zhongqi Shi, Senior Lecturer, East Asian Languages and Cultures

PROJECT: "Exploring the Impact of Academic Podcasting on Foreign Language Learning"

Natalie Voigt, Assistant Professor, School of Nursing

PROJECT: "Increasing Student Critical Thinking Through Case-based Learning Modules in Medical Surgical Nursing Education"

Massive Open Online Courses (MOOCs) Grants

The Office of the Provost's Massive Open Online Courses (MOOCs) Grants 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 on course design, media production, and course delivery.

SPRING 2021 AWARDEES

Below is the list of MOOCs that will be developed in the 2021-2022 academic year with support or advice from the CTL.

Tony Dear, Lecturer in the Discipline of Computer Science, The Fu Foundation School of Engineering and Applied Science & Columbia Video Network (CVN)

PROJECT: "Decision Making and Reinforcement Learning"

David Helfand, Professor of Astronomy **Ivana Nikolic Hughes**, Senior Lecturer in Chemistry

PROJECT: "Frontiers of Science: A Four-Course MOOC Series"

Terry McGovern, Harriet and Robert H. Heilbrunn Professor and Chair of the Heilbrunn Department of Population and Family Health, Mailman School of Public Health **Heather Krasna**, Assistant Dean

PROJECT: "Columbia Public Health Activist Academy"

SPRING 2020 AWARDEES

Below is the list of MOOCs that were developed in the 2020-2021 academic year with support or advice from the CTL

Sheena Iyengar, *S. T. Lee Professor of Business, Graduate School of Business* **Harry West**, *Professor of Professional Practice in the Department on Industrial Engineering and Operation Research*
PROJECT: "Think Bigger"

Marni Sommer, *Associate Professor, Sociomedical Sciences*
Maggie Schmitt, *Project Director, Gender, Adolescent Transitions and Environment (GATE), Mailman School of Public Health* **Caitlin Gruer**, *Program Manager, GATE*
PROJECT: "Menstruation in a Global Context: Addressing Policy and Practice ""

Large-Scale Teaching and Learning Grants

The 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 2021 AWARDEES

Below is the list of grants that will be developed in the 2021-2022 academic year with support or advice from the CTL.

Jonathan Amiel, *Associate Professor of Psychiatry at CUIMC; Senior Associate Dean for Innovation in Health Professions Education*
PROJECT: "Founding a Health Sciences Campus Anti-Racist Educator Community of Practice to Enhance Equity and Justice in Healthcare"

Beth Barron, *Associate Professor of Medicine, Vagelos College of Physicians and Surgeons, Department of Internal Medicine; Associate Director of CUMC/NYP Mary & Michael Jaharis Simulation Center*
PROJECT: "Reducing Bias in Standardized Patient Assessments of Medical Students"

Nikolas Kakkoufa, *Lecturer in Modern Greek; Director of Undergraduate Studies for the Program in Hellenic Studies, Department of Classics*
PROJECT: "Learning Greece from the Streets; An Urban E-Archaeology of the City"

Jenny Mak, *Adjunct Associate Professor, Fu Foundation School of Engineering and Applied Science; Executive Director of Professional Development and Leadership, Dean's Office, Academic Programs, Professional Development and Leadership*
Elizabeth Strauss, *Director of Professional Development and*

Leadership, Fu Foundation School of Engineering and Applied Science, Dean's Office, Academic Programs, Professional Development and Leadership
PROJECT: "Developing an Innovative Hybrid Curriculum for Professional Development and Leadership"

Joseph Michael, *Vice Dean for Education; Associate Professor of Epidemiology, Mailman School of Public Health*
PROJECT: "Mapping Public Health Curriculum for Anti-Racism and Equity"

Nim Tottenham, *Professor of Psychology* **Lila Davachi**, *Professor of Psychology* **Caroline Marvin**, *Lecturer in the Discipline of Psychology*
PROJECT: "Cultivating Science Identity and Increasing Persistence in STEM Expanding Access, Training, and Support for Undergraduate Researchers"

SPRING 2020 AWARDEES

Below is the list of grants completed and released in the 2020-2021 academic year with support from the CTL.

Caroline Marvin, *Lecturer in the Discipline of Psychology*
Trisha Lindemann, *Lecturer in the Discipline of Psychology*
Kevin Ochsner, *Professor of Psychology*
PROJECT: "Refining Goals and Redesigning the Flagship Introductory Psychology Course: Fostering Engagement for Deeper, Longer-Lasting Learning"

Matthew Perzanowski, *Associate Professor of Environmental Health Sciences*
PROJECT: "MSPH School-Wide Teaching Assistant Training"

Provost's Interdisciplinary Teaching Awards (ITA)

Provost's Interdisciplinary Teaching Awards (ITA) are designed to support faculty from different disciplines to work collaboratively on the design and launch of innovative interdisciplinary courses. Emerging from the deliberations of the Provost's Interdisciplinary Working Group, this program awards up to \$20,000 to teams of two or more faculty from different departments or schools to develop and offer undergraduate or graduate courses that integrate content and perspectives from different disciplines to enhance student learning.

SPRING 2021 AWARDEES

Below is the list of projects that will be developed and released with support or advice from the CTL.

William Eimicke, *Professor of Professional Practice, School of International and Public Affairs*

PROJECT: "Blended Learning/Panopto Lecture Support"

Andrea Solomon, *Vice Dean and Dean of Academic Affairs, Graduate School of Arts and Sciences*

PROJECT: "Sustaining and Broadening the Teaching Observation Fellowship Program for Columbia Graduate Students"

Maura Abbott, *Assistant Professor of Nursing, School of Nursing* **Adena Bargad**, *Assistant Professor of Nursing, School of Nursing* **Elise Desperito**, *Assistant Professor of Medicine, Vagelos College of Physicians and Surgeons*

PROJECT: "The Breast Cancer Care Continuum: Prevention, Screening, Diagnosis and Management for Health Equity"

Jonathan Cain, *Associate University Librarian for Research and Learning, Columbia University Libraries* **Jeremiah**

Trinidad-Christensen, *Head, Research Data Services, Columbia University Libraries* **Moacir de Sa Periera**, *Research Data Librarian, Columbia University Libraries*

PROJECT: "The Whys and Hows of Exceptional Scholarship and Research Data"

SPRING 2020 AWARDEES

Below are the projects developed and released in the 2020-2021 academic year with support or advice from the CTL.

Sharon Akabas, *Associate Professor of Nutrition and Associate Director of the Education Initiatives in the Institute of Human Nutrition* **Laurel Abbruzzese**, *Assistant Professor of Rehabilitation and Regenerative Medicine, Director of the Westside Dance Physical Therapy Performing Arts Fellowship, and Director of the Programs in Physical Therapy* **Sally**

Aboelela, *Assistant Professor of Nursing and Director of Online Prerequisites for Entry to Nursing (OPEN) Program*

PROJECT: "Interdisciplinary Weight Management Education to Address Weight Bias Across Health Professions: Toward Improved Health Care for People with Obesity"

Michael Harris, *Professor of Mathematics* **Gayatri Chakravorty Spivak**, *Professor of English and Comparative Literature*

PROJECT: "Mathematics and the Humanities: An Interdisciplinary Innovation"

Support for Faculty

6,565 interactions with Columbia faculty

2,975 services provided to Columbia faculty

1,157 faculty participants at CTL programs and events



CUIT and CTL staff host a Hybrid/HyFlex Classroom Info Session.

The CTL supports the professional and pedagogical 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 programs and services offered to Columbia faculty.

Highlights for Faculty

Anti-Racist Pedagogy Resource and Reading Group

The CTL developed a new resource, “Anti-Racist Pedagogy in Action: First Steps,” to provide a synthesis of anti-racist pedagogy research and practice for Columbia faculty and graduate instructors who strive to incorporate anti-racist pedagogy into their personal teaching practices. The resource centers on citing experts in this field, synthesizing their work to encourage further research and, most importantly, amplifying the voices

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of those who have been doing this work for decades. Classrooms serve as microcosms of the larger society, and the resources offered in this resource, while focused on pedagogical practices, support broader commitments to anti-racist actions in higher education.

To access the resource:
<https://ctl.columbia.edu/resources-and-technology/resources/anti-racist-pedagogy>

Meeting Faculty Where They Are: Multimodal Support

In order to meet pandemic teaching conditions during the 2020-21 academic year, CTL staff provided a wide range of offerings to accommodate and support faculty in a variety of modalities. The support included virtual office hours, daily from 9am–5pm, as well as virtual consultations and teaching observations. CTL staff developed asynchronous online resources and guides, asynchronous online courses, synchronous online workshops and discussion sessions, and hybrid sessions, in which faculty could choose to participate either online or in-person. The goal of this multi-modal support was to improve accessibility and flexibility so faculty could access CTL services regardless of their location or schedule during the pandemic.

Two exciting new hybrid offerings included the “CUIT-CTL Hybrid/HyFlex Classroom Info Session” in which CUIT and CTL staff provided an opportunity for participants to familiarize themselves with the classroom technology available to support their teaching of a hybrid course, as well as the pedagogical resources available from the CTL. Second, the “(Hybrid) Hybrid & Online Teaching Institute Synchronous Session” offered faculty a 90-minute synchronous session to experience the hybrid modality as a learner would. Participants connected with colleagues teaching hybrid courses, shared ideas and teaching approaches, discussed challenges and solutions in breakouts, engaged in Q&A discussion, and planned for their course contexts. section on page 38 for more information.

Programs and Initiatives

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

STUDENTS AS PEDAGOGICAL PARTNERS

Students as Pedagogical Partners (SAPP) is a CTL initiative that brings the undergraduate student perspective and partners with students to transform teaching and learning at Columbia. For the 2020-2021 academic year, the CTL hired four Undergraduate Student Consultants on Teaching and Learning.

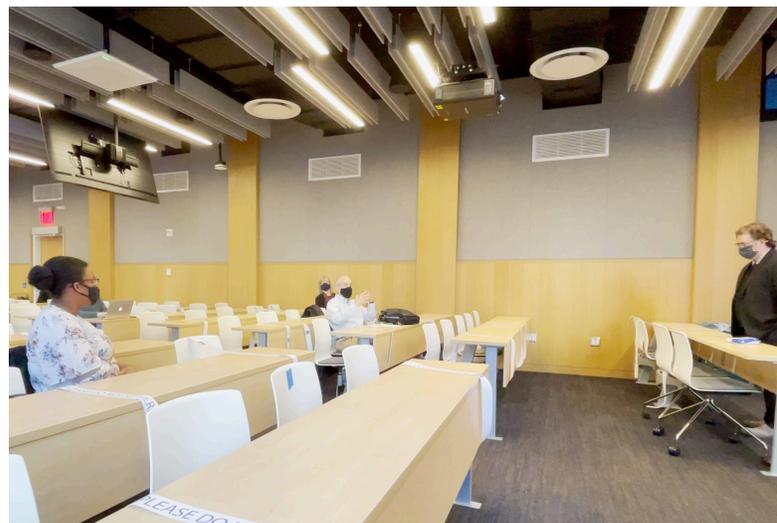
CTL staff and the SAPP student consultants partnered to develop the online resources “Learning Through Online Discussion,” “Community Building: The Learner’s Perspective,” “Feedback for Learning in the Science Classroom,” and “Four Virtual Teaching Practices to Bring into the In-Person Classroom.” These new resources joined ones created with SAPP student consultants the previous year on active learning, learner-centered teaching, and inclusive teaching. The student consultants also participated in an episode of the CTL’s podcast *Dead Ideas in Teaching and Learning*, and produced video, audio, and written submissions for the CTL’s “Voices of Hybrid and Online Teaching and Learning” initiative. Lastly, Columbia instructors were invited to submit their teaching and learning questions through SAPP’s “Ask a Student” initiative. Through these mediums, the students were able to share their experiences of online learning and provide meaningful insights for instructors.

Learn more at:

<https://ctl.columbia.edu/faculty/sapp/>

“Given our sociopolitical context and my own work and interest around antiracism in education, this reading group offered a great opportunity to engage in dialogue with and learn from others across disciplines who are engaged in this work. I found it so valuable to just have the space to share and hear about teaching and learning experiences that inform anti-racism efforts. Having a specific text/reading to provide grounding for the discussion as well as having Rebecca Petitti (Assistant Director at the CTL) to guide and facilitate the conversation really helped to explore and examine anti-racist pedagogical practices in a meaningful way [...] This reading group helped me to focus on—based on reflections on the readings and learning from the experience of my reading group colleagues—strategies to create an inclusive learning environment in the contexts in which I teach. Engaging with others in the reading group gave me a sense of hope—learning about how we are all struggling in different ways to do this work in anti-racist education across disciplines but also appreciating that there are individuals who are committed to moving this work forward is deeply gratifying.”

— **Shubha Dathatri**, *Assistant Professor of Medical Education, Center for Education Research and Evaluation, Vagelos College of Physicians & Surgeons*



The Hybrid (HyFlex) Classroom Information Session hosted by CUIT and CTL staff.



Meet the Student Consultants below and read about their experiences in the SAPP initiative.

"I learned how critical students can be in the way that we perceive teaching and learning. This initiative made me have more intentional conversations with many of my peers about how we feel about teaching at Columbia and what our experiences in the classroom have been like. And turns out that students have a lot to say. And that often, many of us are saying similar things- which leads me to believe that there is much work to be done with regards to adapting current methods and approaches. I also learned to be more humble when thinking about my professors and what they have to do, the work they need to put in, the challenges they face, especially in a year like that past one we had. Creating materials and resources made me think about all the counter arguments or thoughts that my instructors could have to the student perspective which in turn made me think more in depth about their perspective. Overall, I learned that more communication and feedback between students and instructors should be common practice and that we all have a lot to learn from one another."



Yarin Reindorp
Sophomore
General Studies

"I learned that professors are truly interested in hearing from our student perspective and that they value our feedback. I learned that because professors are trying their best, I should also aim to put my best foot forward for every class."



Donian Chyong
Senior
Columbia College

"Being a part of SAPP has made me more aware of the power of metacognition in learning. I didn't realize it before, but many of the courses that I've performed well in were actually because I knew the material of a subject well enough to understand what/why my professor was asking a certain question (i.e., what skill was being evaluated). Now, especially for courses that I struggle in, I've been more proactive about asking pointed questions that will help me understand why my professors are posing particular questions, and the concepts they are focusing on."



Michelle Yao
Junior
Columbia College

"This program has allowed me to reflect on the study habits that work for me. In the future I hope to spend more time in office hours and connecting with teachers because this program has shown me what matters to me as a student, which is learning about what interests me [...] about the STEM fields out there. Additionally, this program has helped train me to advocate for certain experiences as a student. Teachers often ask their students for feedback on what might help them to learn. I didn't always know how to respond, but now I have a much better understanding of how to interact with those questions in order to pose feasible solutions to make my learning experience at Columbia the best it can be!"



Sajan Bar
Junior
School of Engineering
and Applied Science

INSTITUTES AND INTENSIVES

The CTL offered the following institutes for faculty this year.

66 faculty participants in CTL institutes and intensives

928 faculty participants in Hybrid & Online Teaching Institute

Institutes

Institutes provide an immersive setting for faculty to develop new teaching approaches and skills with hands-on guidance from the CTL staff over a period of several days. All 2020-21 institutes were held in an online format.

Active Learning Institute

In this four-day immersive online experience, held in June 2021, faculty explored the purposes and benefits of active learning and learned how to apply these research-based practices by developing their own active and learner-centered (face-to-face or online) course units. Faculty completed a series of hands-on activities and discussions over Zoom and CourseWorks. Topics addressed included facilitating individual and collaborative learning activities, planning and creating effective online materials, and fostering and maintaining an inclusive course climate.

CUIMC Summer Institute for Teaching and Learning for CUIMC Faculty

This one-week online institute, held in July 2020, was devoted to exploring effective teaching and learning

Intensive Hebrew Grammar

Learning Objectives For Unit 3: Qal Sheleimim

Before Class

- 1. Identify and analyze* verbs in Qal Sheleimim in all tenses in the three sub-groups (Pa'al, Pi'el and Pu'al), the infinitive forms, and the passive participle, with and without vowels.
- 2. Construct these forms with and without vowels.
- 2a. Know the two future and imperative variant forms and when to use them.

During Class

- Think-Pair-Share F: Verb analysis in text. LO1 LO2 LO3
- Review & Discussion F: Rules for high-order verbs for high-order verbs. LO1 LO2 LO3
- Quiz on Reading F: Due 24 hours before class. LO1 LO2 LO3 LO4
- Students are presented with irregular verb & write "What do I know that helps".

Reading & Video LO1, LO2, LO3, LO4

Assignment 2 F/S: LO1 LO2 LO3 LO4

Feedback Form

3. Use phonological rules to explain variations from the regular vowel

Miriam Meir, Senior Lecturer of Hebrew Language at JTS, presenting her redesigned course unit map during the Active Learning Institute

strategies in health sciences education. The CUIMC Summer Institute is designed for junior faculty and senior faculty taking on a new teaching role to develop their skills as educators, learn about interactive teaching techniques, and collaborate with other faculty across the campus. Topics covered included: effective course design for face-to-face or online classrooms, designing student-centered activities, and creating inclusive learning environment.

Designing Interactive Learning Objects Institute

This three-day institute, held in late July 2020, was devoted to exploring the effective design and integration of interactive learning objects into active learning environments. Examples of learning objects are quizzes, games, simulations, and interactive graphics and videos. The institute introduced faculty to interactive digital activities that allow students to deeply engage with content, principles of online activity design, and assessment strategies to measure the impact on student learning. In addition to introducing best practices to inform the design of digital interactive learning objects, faculty experienced each step of the design process and engaged in peer review. Throughout the institute, faculty focused on mapping planned activities to specific student learning objectives for a unit in their course.

Hybrid & Online Teaching Institute

The CTL ran the Hybrid & Online Teaching Institute on an ongoing basis throughout the 2020-21 academic year. This institute guides faculty through adapting their courses from face-to-face to online or hybrid formats and consists of asynchronous content hosted in CourseWorks followed by a synchronous online experience with CTL staff and other faculty participants. Together, these activities provide faculty with a comprehensive toolkit they can apply to their own course context whether this may be a seminar, small lecture, or large lecture class.

Faculty Do Many Things

Faculty Goals

- Educator
- Researcher
- Clinician
- Community Service

Family & Life Goals

CTL Director **Michelle Hall** and Learning Designer **Nigel Frazier** work with faculty during the CUIMC Summer Institute for Teaching and Learning via Zoom.

OFFICE OF THE PROVOST FACULTY ORIENTATION

The Center for Teaching and Learning and Office of the Vice Provost for Faculty Advancement (OVPFA) partnered to develop the new online Office of the Provost Faculty Orientation to welcome and acclimate faculty to the 2020-21 academic year in August 2020. This virtual orientation program aimed to complement each school's orientation activities by introducing a range of University resources and offices devoted to supporting faculty's teaching and scholarship.

The orientation comprised a series of online self-paced CourseWorks modules and acquainted faculty with the CTL, Columbia Research, the Offices of Faculty Affairs and of Faculty Advancement, the University Libraries, the Office of Work/Life, Columbia University Information Technology, and the Office of Equal Opportunity and Affirmative Action.

The CTL also co-hosted a synchronous New Faculty Welcome event with the OVPFA. Interim Provost Ira Katznelson welcomed faculty, and Dennis Mitchell, Vice Provost for Faculty Advancement, and Catherine Ross, CTL Executive Director, shared information about the OVPFA and CTL, respectively.

WORKSHOPS AND EVENTS

Workshops and Events allow faculty to explore timely topics related to teaching, learning, and instructional technologies for 1-2 hours with the CTL. Workshops were held in online and HyFlex formats during the 2020-21 academic year. The CTL offered the following workshops and events.

Fall 2020 and Spring 2021

Engaging Students in Online Discussions

With intentional planning and facilitation, faculty can maximize student learning from online classroom conversations. In this workshop, faculty explored a three-step process as well as strategies to ensure that students engage in and learn from synchronous and asynchronous discussions, and leave class with clear takeaways.

Hybrid & Online Teaching Institute Synchronous Session

After completing asynchronous modules in CourseWorks, faculty joined the CTL for this 90-minute synchronous online session via Zoom to experience strategies recommended in the modules, share ideas and teaching approaches with colleagues, explore a case study, and engage in Q&A discussion. Participants reflected and planned for their hybrid or online teaching approach with their learners in mind.

Planning Live Online Class Sessions

"How do I avoid Zoom fatigue? Will lecturing help my students learn? What can I do to plan effective live online class sessions?" In this session, faculty addressed these questions through findings from the science of learning and considered ways of breaking up a synchronous online class session to promote student engagement and learning.

Reading Group: Anti-Racist Pedagogy Theory and Practice

Faculty joined the CTL and peer instructors committed to learning more about and incorporating anti-racist pedagogy and practice in their classrooms. In each session, participants engaged in discussion around a shared text and used the time and space to reflect on their own practice and classrooms.

Part 1

Asynchronous Modules

Estimated time:
45 minutes per module.

Part 2

Synchronous Sessions

90-minute interactive.

Teaching Large Online Courses

“How do I engage and build rapport with students in my large online course? How can I promote academic integrity? How can I use my TAs effectively?” In this session, participants explored these questions and discussed evidence-based strategies to make large online courses more manageable and rewarding for faculty and students alike.

Teaching Online with CourseWorks

Faculty explored how to create community, support student engagement, and assess student learning in the online context using CourseWorks, Columbia’s learning management system. This workshop provided an overview of the CourseWorks interface and highlighted a toolset that allowed participants to set up a course with clear expectations for students, create opportunities for a variety of assignment engagements, and nurture an environment that encourages a culture of inclusive communication.

Ways to Be More Inclusive in Your Online Course

In this session, faculty reflected on their teaching practices and considered five principles of inclusive teaching as they apply online. Participants conversed with peers, shared ideas, and left with strategies to implement in their courses.

Fall 2020

Hybrid/HyFlex Teaching Community (Reflection in Action)

Faculty joined the CTL for conversations with colleagues

977 faculty participants in CTL workshops

“I particularly appreciated CTL’s very practical, very user-friendly techniques on keeping a large online class motivated and engaged.”

— **A. Vivette Ancona**, *Lecturer in Economics*

about experiences with hybrid/HyFlex teaching. This informal community provided an opportunity for faculty to come together to learn from and support one another through an unprecedented remote semester.

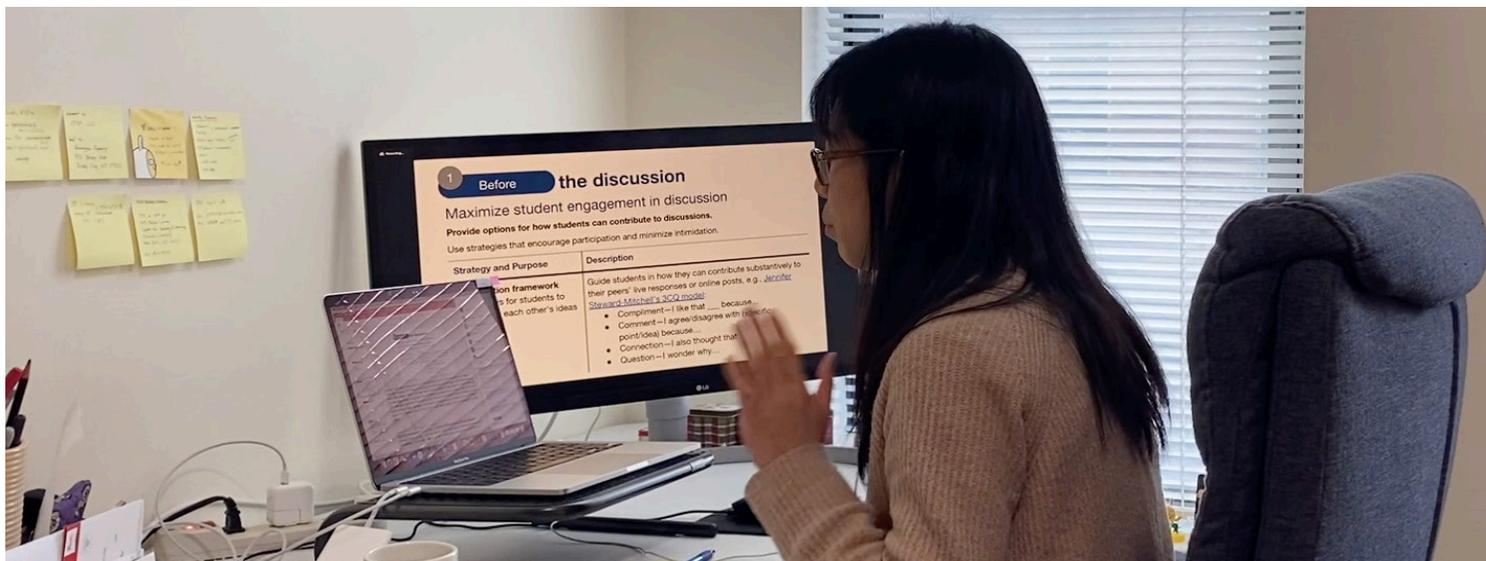
Online Teaching Community (Reflection in Action)

Faculty joined the CTL for conversations with colleagues about experiences with online teaching. This informal community provided an opportunity for faculty to come together to brainstorm, share ideas and strategies, and reflect on and refine their online teaching and learning practices.

Spring 2021

Active Learning Institute Virtual Reunion

Before the virtual reunion, Active Learning Institute alumni each prepared a planned active learning experience they have designed for one of their courses. During the virtual



The alternate view: CTL Assistant Director **Jamie Kim** leads the workshop “Engaging Students in Online Discussions” with faculty over Zoom from her home.

reunion, they worked in groups of 3-4 to workshop their planned active learning experiences and brainstorm solutions to anticipated or experienced challenges.

Assessment and Grading Online with Columbia Tools

Faculty explored tools, including CourseWorks and Gradescope, to create effective assessments and exams and grade student work more efficiently in online or hybrid courses.

Assessment Tune-Up for RFP Applicants

Faculty interested in applying for the Office of the Provost Innovative Course Design and Innovative Module Design grants attended this hands-on session to build or refine the evaluation and assessment portion of their proposals. Participants explored strategies for evaluating the effectiveness of their projects, including the assessment of student learning, and received feedback on their plans.

CUIT-CTL Hybrid/HyFlex Classroom Info Session

This joint session with Columbia University Information Technology (CUIT) provided an opportunity for participants to familiarize themselves with the classroom technology available to support their teaching of a hybrid/HyFlex course, as well as the pedagogical resources available from the CTL. Instructors participated both online and in-person simultaneously.

Dead Ideas in Science Teaching: Podcast Discussion

In Episode 3 of the CTL's Dead Ideas in Teaching and Learning podcast, physicist and Nobel laureate Carl Wieman shares his discovery of several dead ideas in science teaching. After listening to the episode, faculty joined fellow science and engineering colleagues to explore these dead ideas further and discuss how they can exorcise them from their teaching.

Dead Ideas Podcast Discussion: Assessment For and As

Learning

In the CTL's Dead Ideas in Teaching and Learning podcast Season 2, Episode 1: "Assessment For and As Learning", CUIMC faculty Jonathan Amiel and Aubrie Swan Sein discuss the dead ideas they encountered—especially around assessment—as they radically rethought and changed the curriculum and assessment strategies for first and second year medical students. After listening to this episode, faculty joined fellow science and engineering colleagues to explore these dead ideas further and discuss how they can exorcise them from their teaching.

Engineering Your Classroom for Active Learning Online (SEAS Teaching Community)

SEAS faculty conversed with their colleagues and CTL staff on their experiences with and ideas for implementing active learning in online engineering classes. This served as a teaching and learning discussion space for SEAS faculty to come together to brainstorm, share, and learn from one another.

Feedback for Learning

Faculty reflected on their current feedback practices, explored the connection between feedback and student learning, and learned how to give feedback that is actionable, timely, and efficient. Through activities and discussion, participants crafted individual plans that incorporate evidence-based feedback strategies that are transparent, time-saving, and effective into their teaching practice.

(Hybrid) Hybrid & Online Teaching Institute Synchronous Session

After completing asynchronous modules in CourseWorks, including "Module 5: Hybrid/HyFlex Essentials," faculty joined the CTL for this 90-minute synchronous online session to experience the hybrid/HyFlex modality as a learner would. Participants connected with colleagues teaching hybrid courses, shared ideas and teaching approaches, discussed challenges and solutions in breakouts, engaged in Q&A discussion, and planned for their own course context. Faculty participated both in-person and via Zoom.

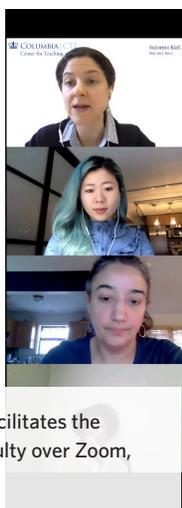
Let's Talk Hybrid/HyFlex Teaching: 30-Minute Check-Ins

Faculty participated in CTL-facilitated check-in conversations to talk with colleagues who are teaching hybrid/HyFlex courses this semester. Check-ins provided a space to share experiences, ideas, and teaching strategies; brainstorm solutions to issues; and celebrate successes together.

Doing, observing, reflecting



CTL staff **Suzanna Klaf**, assisted by **Sayaka Tsuda**, facilitates the session Planning Live Online Class Sessions with faculty over Zoom, in which they discuss active vs. passive learning.



Let's Talk Online Teaching: 30-Minute Check-Ins

Faculty participated in CTL-facilitated check-in conversations to talk with colleagues who are teaching online courses this semester. Check-ins provided a space to share experiences, ideas, and teaching strategies; brainstorm solutions to issues; and celebrate successes together.

Office of the Provost RFP Town Hall

At this Q&A event, CTL and CUIT staff answered questions from faculty about the types of Office of the Provost Teaching and Learning Grants offered in 2021, the kinds of projects eligible for grants, and the application process.

Proactive Strategies to Promote Academic Integrity in Undergraduate Courses

This workshop was co-facilitated with CC-SEAS Director of Academic Integrity Victoria Brown as part of Academic Integrity Awareness Week. Faculty explored reasons that students turn to unauthorized sources instead of approaching faculty. Faculty also developed their own narratives around Academic Integrity at Columbia in order to initiate conversations about upholding these values in their own courses.

WORKSHOPS TO GO

The Workshops To Go program is an on-demand offering for departments or programs interested in hosting a short workshop for their faculty. All workshops present evidence-based practices and are grounded in the science of teaching and learning.

With each Workshop To Go offering, faculty receive



CTL Associate Director **Suzanna Klaf** and Assistant Director **Rebecca Petitti** providing teaching support on Columbia's campus during the pandemic.

resources, strategies, and practices that can help them address common challenges in their classrooms. Department chairs and program directors select from a list of session topics offered in 30-, 60-, or 90-minute formats, and then work with CTL staff to customize the workshop to meet the needs of their faculty. All 2020-21 Workshops To Go were facilitated online. Below is a list of Workshop To Go sessions and the departments, schools, and/or offices that requested them:

- Learning Through Discussion:** CTL staff led this workshop for faculty at Columbia College in the Frontiers of Science Core Curriculum course.
- Planning Live Online Class Sessions:** CTL staff led this workshop for faculty in the Department of Neurology.
- Small Changes to Foster Inclusive Teaching:** CTL staff led this workshop for faculty at Teachers College, the Jewish Theological Seminary, the Department of Art History, and the Frontiers of Science Core Curriculum Course.

CUSTOMIZED WORKSHOPS

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. All workshops were facilitated online.

Schools & Offices

Barnard Center for Engaged Pedagogy (Summer Pedagogy Symposium)

- Inclusive Teaching with Columbia CTL @ Barnard (July 15, 2020):** This 90-minute session provided an overview of the five principles of inclusive teaching from the Guide for Inclusive Teaching.
- Hybrid & Online Teaching Institute (H&OTI) Synchronous Session (July 17, 2020):** This 90-minute session built on the 5 modules in the H&OTI CourseWorks course, allowed participants to experience online tools for teaching and engagement strategies, and provided opportunities for faculty to share experiences and ideas with peers and plan for the semester ahead.

Columbia College

- Hybrid & Online Teaching Institute Synchronous Session for Contemporary Civilization (August 26, 2020).
- Instructional Technologies for Online Teaching for Contemporary Civilization (September 1, 2020): The focus in this session was online teaching with CourseWorks, Panopto, and Poll Everywhere, with highlights of collaborative tools/features within each of these Columbia-supported technologies.

Department of Art History

- Small Changes to Foster Inclusive Teaching (October 27, 2020).
- Managing Classroom Climate: Responding to Microaggressions for Art History (November 17, 2020): This session for Art History faculty built on principles 1 and 5 from the Guide for Inclusive Teaching. Through breakout room discussions, faculty shared reflections on their classroom climate, experiences with microaggressions in the classroom, and practices in responding to microaggressions.

Department of Earth and Environmental Sciences

- Online Teaching Discussion Q&A (September 3, 2020): This workshop addressed faculty questions about online teaching with a focus on student engagement, community building, and assessment of student learning.

Department of Emergency Medicine

- Active Learning Strategies for Remote Teaching Environments (August 17, 2020).

Department of History

- Introduction to Zoom (September 1, 2020): In conjunction with CUIT, CTL staff led a 60-minute overview of the Zoom platform with a Q&A session for History faculty.
- Introduction to EdBlogs for Professor Samuel Roberts and HISTUN2523 students: This 60-minute overview of the EdBlogs platform focused on composing a post with links and media and submitting work for review. (September 23, 2020).

Law School

- CourseWorks Refresher for Columbia Law School Staff (September 23, 2020): This session provided an overview of administrative tools in CourseWorks, with a particular focus on the management of class media

content.

School of the Arts

- Hybrid & Online Teaching Institute Synchronous Sessions (August 19, 21, 24, 26, and 28, 2020): Held for faculty in the departments of Film, Visual Arts, and Writing.

School of Engineering and Applied Science

- New Faculty Orientation (September 25, 2020): CTL staff provided an overview of the CTL mission and CTL programs and services of interest to SEAS faculty, and led a Q&A segment for teaching-related questions.
- Department of Mechanical Engineering: Hybrid & Online Teaching Institute Synchronous Session. (July 30, 2020).

School of International and Public Affairs

- Hybrid & Online Teaching Institute Synchronous Sessions (July 13, 15, 17, 20, 21, 22, and 23, and November 16, 17, and 24, 2020). CTL staff led ten sessions for SIPA faculty to prepare for the Fall 2020 and Spring 2021 semesters.

School of Journalism

- Hybrid & Online Teaching Institute Synchronous Session (August 5, 2020): Discussions for Journalism faculty focused on HyFlex teaching of seminar courses in which the majority of students will be participating in-person.

School of Social Work

- CourseWorks Sessions (August 18, 26, and 27, 2020): In these three sessions, School of Social Work faculty were provided an overview of CourseWorks and the different features guided by the framework of "Setting Up Your Course Site", "Organizing Content", "Assessing Student Learning", and "Encouraging Communication".
- Teaching Online with PollEverywhere (January 5, 2021).
- Teaching Online with Discussions and Groups (January 7, 2021).

Study Abroad Program in Japan

- Teaching Online with CourseWorks (January 20, 2021).

Undergraduate Writing Program

- CourseWorks session (August 27, 2020): In this session, participants set up their grade posting

policy and created an assignment in CourseWorks in alignment with the Undergraduate Writing Program requirements. Participants were also provided an overview of the ways feedback can be delivered in the SpeedGrader.

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 4,194 one-on-one consultations with CTL staff to receive support for their teaching and learning needs throughout the year. These consultations were offered over Zoom and over the phone, either scheduled or during CTL virtual office hours for faculty seeking immediate support. Common consultation topics included course and curriculum design, hybrid and online teaching strategies, inclusive teaching strategies, educational grants, and assessment and evaluation.

TEACHING OBSERVATIONS

Through a structured process, CTL consultants observed instructors in their online, hybrid, and HyFlex classrooms and provided individualized feedback to improve their teaching. In the academic year 2020-2021, teaching observations were conducted for more than 25 faculty across four different schools across Columbia University. CTL staff also worked with schools, programs, and departments seeking to refine their peer teaching observation practice.

ASSESSMENT AND EVALUATION

Faculty requested 145 consultations focused on assessment and evaluation. CTL staff worked with faculty to identify and develop assessment methods, consult on assessment and evaluation strategies for grants that support teaching and learning, and provide professional development on a variety of assessment best practices.

LEARNING DESIGNER TECHNOLOGY SUPPORT

CTL Learning Designers help members of the Columbia teaching community effectively integrate instructional technologies into their teaching practice. Faculty and instructors can seek advice and support to experiment with a rich portfolio of online platforms and digital and media tools to turn classrooms and online environments 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.

This year the CTL supported a range of platforms and provided space, equipment, and education for the production of media and learning objects.

To learn more:

<https://ctl.columbia.edu/resources-and-technology/teaching-with-technology/>

Audience Response Systems

Learning Designers aided faculty with the use of Audience Response Systems (ARS), which are used in classrooms of all sizes to engage participants. Instructors used ARS to communicate with learners, collect answers

“For a number of years, the Arabic program at MESAAS (Middle Eastern, South Asian, and African Studies) has been working towards two goals: creating an online curriculum for all the levels we offer and launching online/hybrid courses. [Through a CTL consultation] I learned many important variables to consider. First, the difference between hybrid and HyFlex modes of instruction. Second, what the current technologies available at Columbia allow for and how they would help shape our approach to such courses. Third, the stages involved in preparing, executing, and evaluating such courses. Finally, the many ways CTL can support us throughout the whole process. [The consultation] made me realize what is possible as well as the limits of the technologies available, which levels and specifically courses are more adaptable to the online instruction modes, and finally, the different phases we need to follow in order to launch such courses.”

— **Taufik Ben-Amor**, *Gordon Gray Jr Senior Lecturer in Arabic Studies, Director, Columbia Arabic Summer Program in Amman*

to questions, and provide real-time feedback. In Poll Everywhere, the ARS system used at Columbia, learners respond to questions using their own web-enabled devices, such as a phone, tablet, or laptop.

CourseWorks Support

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

"The academic year 2020-2021 was my fiftieth year teaching at Columbia [...] I have always taught my large undergraduate lecture courses in the traditional way: that is, by lecturing. Transferring my 150-student Introduction to Human Rights course to the online environment for the spring 2021 semester was an intimidating prospect. I was hugely relieved when I learned that Nicky Hentrich [Learning Designer] of CTL was willing to give me as much help as I needed to figure things out. In a series of meetings, she suggested lots of good ideas to make the course clearer and more convenient for students and to increase student participation in learning, including how to make the syllabus more transparent, how to mix recorded lectures and live online lectures and discussions, how to organize the students in teams to write memos in preparation for discussion classes, how to use quizzes to help students benchmark their learning, and other good ideas. She also patiently taught me how to use Panopto and various Courseworks functions I had not used before. At my request, Suzanna Klaf [CTL Associate Director] did an assessment that helped identify what I was doing that worked and what I might change. She handled it in a way that let me feel supported, not criticized. With all the changes, I felt the course worked better than in the traditional format, and the student evaluations seemed to reflect that. I plan to bring many of the new methods I learned back to the classroom when we resume in-person teaching. It was a pleasure to learn new teaching techniques, try them, and see them work. I could not have done without the extensive support I received from Nicky and Suzanna."

— **Andrew J. Nathan**, *Class of 1919 Professor of Political Science*

annotation, and electronic portfolios.

DIY Media Production Spaces

The CTL maintains two DIY Media Production Spaces with technology suited for producing instructional multimedia content including interactive videos, screencasts, and annotated media. Instructors who request to use the facilities receive a consultation with a CTL Learning Designer, learn how to use the equipment and software, and discuss their learning goals for the course and how student learning can be enhanced using instructional media. As a support to faculty creating their own media, CTL Learning Designers and the media production team have produced the "Teaching with Do-It-Yourself 'DIY' Video" guide. This guide offers examples, principles, and best practices to help instructors create engaging classroom experiences using video, and provides information about the CTL's DIY Media Production Spaces.

EdBlogs

EdBlogs make it easy to share course content and create an online community using a blogging format. EdBlogs provides a blog for any course offered at Columbia University upon the course instructor's request.

Gradescope

Gradescope is a tool designed to streamline and standardize the grading of paper-based, digital, and coding assignments. Gradescope allows for handwritten assignments to be graded digitally, and for multiple graders to collaboratively develop and implement their grading rubrics. It supports problem sets and projects as well as worksheets, quizzes, exams, and papers.

Mediathread

Mediathread, an innovative platform developed at the CTL, supports collaborative multimedia analysis. Mediathread allows users to lift video, audio, and image items from a range of digital collections and then work with them in a course-specific website.

Panopto

Panopto is Columbia's media platform featuring full storage and streaming functionality for audio and video content. Panopto supports recording and live streaming of classes and other events and can be integrated with CourseWorks/Canvas and other services through LTI integration. Panopto is particularly useful for flipped classroom, lecture capture/review, and online programs.

Resources and Online Courses

The CTL develops online resources and courses for instructors covering a range of teaching and learning topics. These resources and courses provide a concise introduction to pedagogical approaches, the basics of effective implementation, and practical strategies to help instructors address the teaching and learning issues that they face in their classrooms.

On-Demand Teaching Resources

During the 2020-21 academic year, CTL developed many resources to support hybrid, HyFlex and online teaching, in response to the pandemic. These resources are listed in the “Ongoing Support for Teaching through Disruption” section on page 18.

For more, please visit:

ctl.columbia.edu/teachingonline/

Additionally, CTL developed the resources listed below.

For more, please visit:

ctl.columbia.edu/resources-and-technology/resources/

Developing Poll Questions to Engage and Assess Student Thinking in Science and Engineering Courses

In this guide, we share how instructors can develop and incorporate poll questions into their classrooms that engage students in higher-order cognitive processes, such as applying concepts or evaluating hypotheses, to assess students’ understanding.

Early and Mid-Semester Student Feedback

The CTL recommends capturing student feedback at various points within the semester, including mid-term. The goal of such feedback is to create a dialogue about students’ learning, not an evaluation of the instructor’s teaching. This resource outlines two approaches for collecting feedback from students.

Feedback for Learning

This resource offers strategies to make giving feedback easier and more effective. While there are specific technologies that can help facilitate feedback in an online or hybrid/HyFlex learning environment, the strategies presented are applicable to any kind of course such as large lecture or seminar and across any modality, such as synchronous, asynchronous, fully online, hybrid, or in-person.

Peer Review: Intentional Design for Any Course Context

This resource offers a number of considerations for instructors developing peer review activities in their classes. While there are specific platforms that can help facilitate peer review in online or hybrid classes, considerations remain the same across different class formats, e.g. in-person, HyFlex, online.

Promoting Academic Integrity

While it is each student’s responsibility to understand and abide by university standards towards individual work and academic integrity, instructors can help students understand their responsibilities through frank classroom conversations that go beyond policy language to include and/or articulate shared values. By creating a learning environment that stimulates engagement and designing assessments that are authentic, instructors can minimize the incidence of academic dishonesty. This resource provides strategies for promoting academic integrity.

Teaching During and After the 2020 US Elections: Resources for Faculty and Students

Regardless of the outcome, the 2020 US Elections could have been stressful for both instructors and students, thereby impacting the learning environment in courses. This resource outlines steps instructors could take to ensure that both they and their students were supported during that time.

Teaching Guide

Guide for Inclusive Teaching at Columbia

In 2017, the CTL authored and released the Guide for Inclusive Teaching at Columbia, which has received widespread interest. The online version of the guide has been accessed over 33,959 times in 129 countries since its release. The guide offers five research-based inclusive teaching principles, as well as practical, accessible, and usable evidence-based strategies that instructors can use immediately.

Online Courses

Assessment and Grading in CourseWorks 2.0

Launched in August 2019, this course provides instructors with an in-depth understanding of the assessment and grading features in CourseWorks. Participants learn about setting up assignments within CourseWorks using a range of tools. The course also helps participants navigate

Courseworks' grading features to assess assignments, quizzes, and discussions. Since its original launch in late Spring 2018, the courses have recorded 208 enrollments by faculty and instructors.

Blended Learning Essentials

This self-paced course provides an overview of blended learning and guides instructors through the design process for a lesson or unit of study. The course features videos of Columbia faculty and former recipients of the Provost's Innovative Course Design grants, who share their blended teaching and learning experiences.

Course Design Essentials

Launched in June 2020, this self-paced and self-enroll course brings the materials from the CTL's in-person "Course Design Essentials" offering into a CourseWorks course site to guide faculty through the design or redesign of a course. Participants learn about backward design and consider learner-centered and inclusive teaching practices as they draft course learning objectives, assessments, and plans for learning experiences on downloadable worksheets.

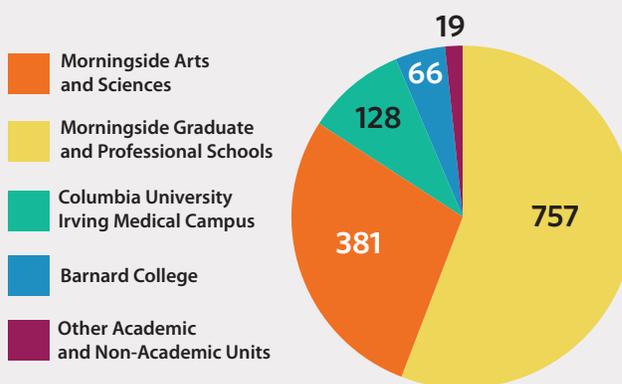
Inclusive Teaching: Supporting All Students in the College Classroom MOOC

In June 2019, the Columbia CTL launched the first ever MOOC (massive open online course) dedicated entirely to the topic of inclusive teaching in higher education. The course provides practical, accessible, and usable strategies that instructors can implement in their classrooms to create and maintain a supportive learning environment for all students. This course aims to provide instructors with tools that are immediately applicable to their teaching contexts. Since its launch, over 13,650 people have enrolled in the course.

Introduction to CourseWorks Online 2.0

Re-launched in January 2020, Introduction to CourseWorks Online provides instructors with an overview of the features and functionality of Columbia's learning management system, allowing them to build and support engaging courses. In this self-paced course, participants learn how to navigate CourseWorks, manage syllabi and course materials, and utilize communication features. The course provides tips and examples that highlight the use of CourseWorks tools as applicable to various teaching and learning contexts. Since its initial launch in Fall 2017, the course has recorded 395 enrollments by faculty and instructors.

1351 Faculty Enrollments for CTL Self-Paced Courses



Support for Faculty at Columbia University Irving Medical Center

The CTL offered a range of faculty development programs and services to provide CUIMC instructors with effective teaching approaches, resources, and instructional technologies. CTL staff also provided daily office hours to support faculty. In addition to the CUIMC Summer Institute for Teaching and Learning, the CTL facilitated several customized workshops and information sessions to address the specific teaching needs of schools, departments, and other academic units at CUIMC.

Highlights for CUIMC Faculty

“Self-Directed Learning Resources for Clinical Skills” with Dr. Beth Barron

Beth Barron, Associate Professor of Medicine at CUIMC, worked with the CTL on her Office of the Provost Innovative Course Design Grant project “Self-Directed Learning Resources for Clinical Skills” to redesign the Foundations of Clinical Medicine Tutorials course taught to first-year medical students. The course is responsible for developing the foundation of students' knowledge, skills, and attitudes for providing effective clinical care, which they will build upon for the rest of their careers.

A primary component of the course is learning how to perform a physical exam, which is accomplished via didactic introduction followed by in-person practice (on peers, standardized patients, and patients). An issue identified by Dr. Barron was that in the past, students had often come to in-person training under-prepared and, as

a result, in-person sessions had focused on basic demonstration rather than allowing students to ask detailed questions while focusing on practicing these high level skills. As part of the course redesign, and in collaboration with the CTL and several medical students, Dr. Barron developed highly detailed introductory resources, consisting of text, videos, and practice questions which students are required to complete prior to attending in-person sessions. Due to this work, participation and progress has been at an all-time high this year, with students demonstrating higher levels of skill and asking detailed questions during in-person practice sessions.

To learn more about Dr. Barron's project, watch her video presentation at the 2021 Celebration of Teaching and Learning Symposium at:

<https://ctl.columbia.edu/about/2021symposium/>

“Wilderness, Environmental and Disaster Medicine: Reimagining an Austere Medicine Curriculum” with Dr. Christopher Tedeschi

Dr. Christopher Tedeschi, Associate Professor of Emergency Medicine, worked with the CTL and his colleagues at CUIMC to develop a new one-month elective course for fourth-year medical students called “Austere Medicine”, as part of an Office of the Provost Innovative Course Design Grant. The course focuses on developing students' resource management skills during wilderness, environmental, and disaster situations.

While the course initially intended to rely heavily on in-person training, the team was forced to quickly adapt due to COVID-19 protocols. The team shifted to a hybrid model which included pre-work for students followed by virtual interactive discussion sessions to consolidate and synthesize ideas. The pre-work included interactive online modules in which students were presented with new concepts and scenarios (e.g., saving a drowning victim) interspersed with formative questions, allowing students to independently retrieve and consolidate new concepts. The course also implemented several small group activities, placing students in real-world situations in which they collaborated to develop implementation plans to address the challenges.

Lastly, CTL staff, in close collaboration with Dr. Tedeschi and his team, developed two virtual simulations: a medical kit simulation and a patient triage simulation. In the former, students practice packing their medical kit for various scenarios, such as on a mountain, in a desert, or on an unknown expedition. In the latter, medical stu-

1,666 interactions with CUIMC faculty
1,164 services provided to CUIMC faculty
245 CUIMC faculty participants at CTL programs and events
128 CUIMC faculty participants in self-paced courses

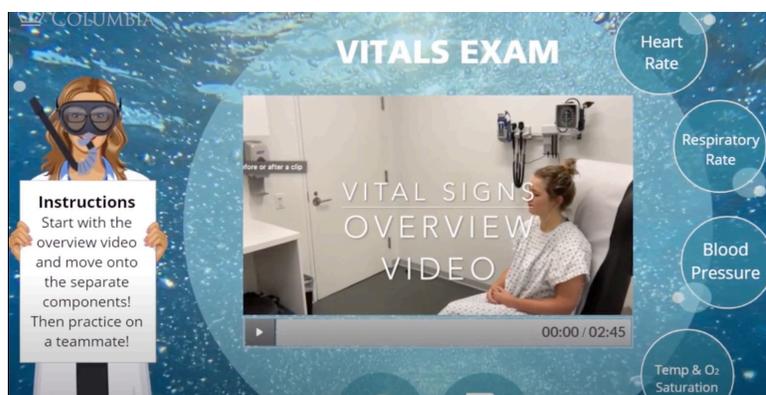
dents triage patients entering an emergency department during a city-wide flu-like outbreak, simulating the stress, anxiety, and resource limitation often faced in a real-life setting.

Introduction to Anti-Racism Pedagogy Discussion Session

CTL staff facilitated a discussion about anti-racist pedagogy for CUIMC instructors, exploring curricular design strategies that help achieve anti-racist student learning outcomes. The discussion session also identified appropriate strategies for assessing anti-racism in different learning contexts.

Teaching and Assessing Anti-Racism Competencies Workshop

In a new workshop co-facilitated by Michelle Hall, CTL Director of CUIMC Programs and Services and Samuel C. Quiah, Associate Director, Center for Education Research and Evaluation (CERE), participants discussed anti-racist pedagogy and explored curricular design strategies that help achieve anti-racist student learning outcomes.



A snapshot of the introductory modules developed by **Beth Barron** and CTL staff as part of her course redesign project.

They also identified appropriate strategies for assessing anti-racism in different learning contexts and reflected on their own learning and development goals as anti-racist educators.

Customized Workshops

The CTL facilitated the following customized workshops for CUIMC faculty

- School of Nursing Hybrid and Online Teaching Institute (July 22, 2020): After participating in the Hybrid and Online Teaching Institute asynchronous online course, School of Nursing faculty and staff participated in a CTL-facilitated synchronous session to review the principles of the course most relevant to them. The session also guided staff on technical components and pedagogical strategies for using collaborative documents in OneDrive.
- College of Dental Medicine Hybrid and Online Teaching Institute (July 30th, 2020): CTL staff facilitated a session for the College of Dental Medicine faculty on remote teaching best practices, including course design principles, the use of technologies to support active learning, and approaches to synchronous and asynchronous teaching modalities.
- School of Nursing Online Teaching Review Session (January 6, 2021): This session was a refresher of hybrid and online teaching practices for Nursing faculty in preparation for the Spring 2021 semester. Faculty reviewed pedagogical procedures, practiced using common online learning tools, examined how to make their classes more inclusive, and reviewed available resources for their assistance.
- Physical Therapy Writing Learning Objectives Workshop (March 31, 2021): This workshop for faculty in the Physical Therapy program supported faculty in writing and improving learning objectives for their courses. The workshop reviewed guidelines for writing objectives, offered rubrics for evaluating objectives, and summarized learning domains from Bloom's Taxonomy. In the workshop, faculty had the opportunity to apply these ideas and rewrite their own learning objectives.



Dr. Nataliya Pilipenko working with CTL Media Producer Abie Sidell on her Innovative Course Design project.

Faculty Spotlight:

Nataliya Pilipenko, Innovative Course Design Award Recipient, Assistant Professor of Behavioral Medicine, CUIMC

In Fall 2020, Nataliya Pilipenko worked with the CTL to redesign the Major Clinical Year Primary Care Clerkship course offered to medical students at Vagelos College of Physicians and Surgeons. Through an Office of the Provost Innovative Course Design Grant, the course was transitioned into a hybrid format to improve student learning and was released in July 2021. Below, we asked Dr. Pilipenko about her experience.

Describe the course. What were the main challenges of the previous iteration of your course? Why did you redesign the course?

This course is focused on advancing patient-centered interviewing skills when working with patients within primary care. The course covers six content domains: 1) agenda setting, 2) mechanics of interviewing, 3) biopsychosocial inquiry with focus on patients' explanatory model of illness, 4) working with patients' companions, (5) working with interpreters, and 6) EMR integration and telemedicine use.

Previously, learners reported challenges with several areas including agenda setting, interviewing techniques, managing information exchange, and incorporating concurrent documentation practices. My approach was to design a new course which is grounded in current literature, provides clear behavioral skills (and rationale for these skills), and allows learners opportunities to become more familiar with techniques by evaluating these via review of video vignettes that were created to demonstrate various interviewing behaviors.

Describe the blended/hybrid learning approach. Which activities or content were online versus face-to-face?

We created online components which included pre-recorded training modules (the clinical scenario video vignettes) covering the six course domains which are available to the students prior to the lectures. Learners are asked to watch these videos and to identify or rate target behaviors. In doing so, the learners develop the ability to identify successful interviewing strategies.

In synchronous sessions students participate in six brief

lectures delivered by the principal investigator (either face-to-face or via Zoom), along with discussions and patient care sessions. Students are provided with feedback on their patient care using metrics grounded in the didactic sessions.

What resources did you and your team need to design the course?

The CTL reviewed the course design and survey-based portions of the course. They also advised on what video equipment would be needed and supported us in remote recording workflows and editing for the clinical scenario vignettes. We used the Camtasia screen capture and editing tool.

What activities/assessments will you use to gauge impact of the new format on student learning?

Each student will be asked to complete a self-assessment of patient care sessions using a checklist outlining behaviorally-anchored goals. These checklists are discussed during the lectures and/or group discussions. Both challenges and successes in implementation of the interviewing skills are discussed.

Students' self-reports of knowledge pertaining to the skills as well as perceived competence with patient interviewing and performing the specific behaviors will be evaluated prior to each lecture/online training module and following the completion of the course. Information will be collected via the Qualtrics platform.

Students' experience of learning is also assessed during group discussion. This feedback, including the course's strengths and areas for improvement, is summarized and used for course improvement. Additionally, students' satisfaction ratings of the course are collected.

Do you have any advice for other faculty who are considering blending their courses?

I would suggest trying this. Working on this course has helped me to think differently about my teaching in a more global sense—for example, learning new techniques to enhance learners' experience and critically appraising my own thinking behind curriculum design and implementation. I have discussed what I learned with other faculty and residents too.

Support for Graduate Students

5,546 interactions with Columbia graduate students

7,885 services provided to Columbia graduate students

2,494 graduate student participants in CTL programs and events



Senior Lead Teaching Fellows and CTL Assistant Director Caitlin DeClercq finally gather in person on Morningside campus in May 2021.

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The CTL supports the pedagogical and professional development of Columbia graduate students across the University who have current or future teaching responsibilities. This support includes an array of offerings for graduate students to help them reflect on, measure, and improve their teaching while at Columbia. Graduate students participating in the CTL’s programs and services develop a sense of pedagogical agency and the value of interdisciplinary exchange and peer-driven inquiry that help prepare them for the future in a variety of academic and professional settings.

To learn more about offerings for graduate students:
<https://ctl.columbia.edu/graduate-instructors/>

Highlights for Graduate Students

Learning Community: Pedagogies of Race and Oppression

CTL partnered with the Graduate School of Arts and Sciences Office of Academic Diversity and Inclusion to offer a Learning Community for graduate students on Pedagogies of Race and Oppression. Over the course of two sessions in Fall 2020 and three sessions in Spring 2021, two cohorts of graduate students collectively engaged with topics in pedagogy and practice as they relate to race and marginalization, with particular emphasis on anti-racist and anti-oppressive pedagogical practices. Participants reflected on their own positionalities, explored how various forms of oppression shape teaching and learning at and beyond Columbia,

and developed skills to support anti-racist and anti-oppressive pedagogical thinking and practice.

“TDPods” Collaboration

Conceived as a way to build community among graduate students fulfilling the requirements for the Advanced Track of the CTL’s Teaching Development Program (TDP), the TDPod program was launched in Spring 2021 to provide peer-to-peer support to participants as they assemble Teaching Portfolios. Meeting synchronously for biweekly peer review meetings and optional weekly coworking sessions, participants in the first TDPod cohort provided one another with formative feedback on teaching portfolio documents, supported each other in making progress toward TDP completion, and enjoyed a mechanism for accountability as well as community-building during a particularly isolating year.

Programs & Services

TEACHING DEVELOPMENT PROGRAM

This Teaching Development Program (TDP) allows Columbia doctoral students to cultivate, document, and articulate their teaching development across the arc of their graduate school career. Graduate students can participate in the TDP program on either of two tracks: Foundational or Advanced. Over 160 students registered in the TDP in 2020-21, bringing total enrollment to 465.

Completion of a TDP track earns a letter outlining track competencies and certifying completion from the CTL. Completion is also noted on Columbia transcripts for doctoral students in Arts and Sciences, the Fu Foundation School of Engineering and Applied Science, the Mailman School of Public Health, the School of Nursing, and the School of the Arts.

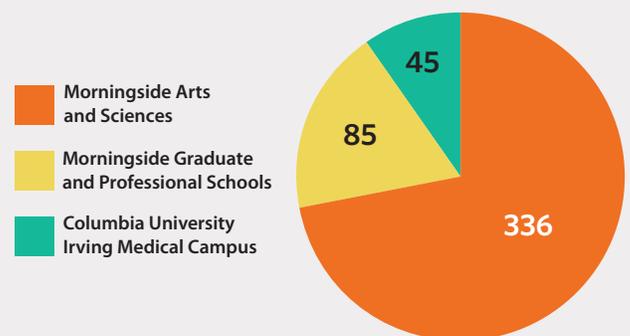
BEGINNING TO TEACH

The CTL offers programs and services throughout the year that introduce graduate students to fundamental concepts and practices in student-centered teaching. They help to deepen the experience of TAships, connecting early instructional experience to proven and sustainable pedagogical practices. Participation in these offerings with subsequent reflection helps to satisfy the Foundational Track for graduate students enrolled in the Teaching Development Program.

“I thought that Brendane Tynes and Dominic Walker [co-facilitators of the Pedagogies of Race and Oppression Learning Community] did an amazing job cultivating a temporary community, and creating an environment that was hospitable to a lot of vulnerability and personal sharing. This is unlike most other pedagogical spaces, and was absolutely necessary to the objectives of the workshop. This kind of personal, emotional, and political work is essential to working through the effects of racial capitalism that differently structure our everyday lives—and key to bringing about new pedagogical practices and relationships that support continual anti-oppression work. I consistently tried to ground my Lead Teaching Fellow projects and teaching in the same ethos of care, honesty, and anti-racist praxis that Dominic and Brendane modeled. The workshops were well-balanced between thinking critically about how to unmake racist practices in the classroom, and exercises that asked participants to reflect on their own educational experiences, and imagine new educational spaces that we would create. I came away from this experience grounded in self-reflective, evaluative work about my own racialized identity, and the responsibilities I have in crafting relational spaces of learning.”

— **M. Constantine**, *Ph.D. Candidate, Department of Anthropology, on the Learning Community: Pedagogies of Race and Oppression*

466 Participants in the Teaching Development Program across Columbia



"I decided to participate in the TDP because I had always wondered about my eligibility to teach and as an international student, the nature of teaching here in the US. The program helped me get used to some common language in the educational field as well as various teaching tools that can be used effectively in the classroom. However, the most valuable knowledge I gained was that I was not alone—that my peers from different fields also had the same questions, doubts, and concerns. The program gave me numerous insights and takeaways that I implemented while teaching last semester, such as openly encouraging students to demonstrate their abilities through various modes (verbal, written, in-class discussions, in small breakout room discussions, one-on-one meetings during office hours, etc.). It was gratifying to see students respond positively to my efforts in their feedback. I truly appreciate the TDP organizers for creating an extremely helpful and non-intimidating environment!"

— **Yuki Ishida**, *Ph.D. Candidate, Department of East Asian Languages and Cultures*

"The Teaching Development Program (and the support from the CTL in general) has helped me stay involved in education, even as I take a hiatus from full-time classroom teaching to complete the last years of my research-intensive doctoral degree. By attending CTL pedagogy workshops and seminars, I've not only gained a more comprehensive understanding of what a student-centered STEM classroom looks like but also reflected on how to implement the strategies in my own practice. As a bonus, I will have all of my teaching materials, including a Digital Teaching Portfolio, ready for the job market after finishing the TDP Advanced Track, which will take a lot of the stress out of applications!"

— **James Callahan**, *Ph.D. Candidate, Department of Chemistry*

Teaching Orientations

Teaching Orientations introduce graduate students to a range of teaching resources, procedures and policies at the university, and practical, evidence-based strategies that they can implement on the first day of class. In Fall 2020 and Spring 2021, CTL offered orientation in the form of a series of five new online, asynchronous modules and 90-minute debrief sessions with CTL staff.

ach: Creating a Day Plan and y Sheet

ule 4 - Campus urces & Support eaching ences

ule 5 - Next s for Your Teach- nd Professional ipment

https://youtu.be/qMwCPaJ7XhY_e



CTL Assistant Director Caitlin DeClercq leads a welcome video for the new online asynchronous modules for the graduate student Teaching Orientation. After completing the 5 modules, we invite you to join one of our synchronous sessions, which will t

These five modules addressed the following topics:

- Establishing instructional goals and an inclusive learning climate
- An overview of TA roles and online teaching support
- Creating a policy sheet and a first day of class plan
- Common TA challenges and campus resources that help to navigate them
- Next steps for teaching and professional development

The live sessions offered opportunities to discuss module highlights, get individual feedback on policy sheets and plans for the first day of class, and engage in Q&A.

Essentials of Teaching and Learning Workshops

The Essentials sequence of workshops familiarize graduate students with frameworks and tools they can use to facilitate student learning. Completion of the Essentials sequence is a requirement for completion of CTL's Teaching Development Program for graduate students. All Essentials workshops during the 2020-21 academic year were held online. A series of asynchronous modules helped participants prepare for live sessions.

2020-21 Essentials sequence (ran each semester)

Creating Inclusive Learning Environments: Participants learned about the key terms, frameworks, and principles of inclusive teaching, focusing on strategies and tools for including all students in the learning process.

Learning Objectives and Backward Design Participants learned about backward design, an end-in-mind approach

to instruction to facilitate students' learning.

Active Learning: Participants practiced developing class activities aligned with learning objectives that incentivize all students to participate.

Assessment and Feedback: Participants learned approaches for assessing student learning and providing feedback that encourages students to focus more on their improvement and less on bottom-line scores

ADVANCING YOUR TEACHING

Graduate students wishing to advance their teaching practice and engage more deeply with a community of peers can participate in a range of advanced programs, seminars, and institutes at the CTL. These offerings help participants engage with the scholarship of teaching and learning within a community of peers invested in teaching, apply conceptual frameworks and emerging technologies to innovate their teaching, and cultivate transferable professional skills.

Seminars

Seminars provide the opportunity for cohorts of graduate students to engage in a sustained series of conversations, modules, and workshops focused on selected topics in teaching and learning over the course of the semester.

This year the following seminar programs were offered to graduate students. All seminars were held online.



In an intro video, CTL Senior Assistant Director **Ian Althouse** welcomes participants to the Essentials of Teaching and Learning asynchronous course, which is completed by graduate students prior to the synchronous workshop series.

“The Innovative Course Design Seminar (ICDS) changed the way that I think about all aspects of course design, from learning objectives to assessments. I learned new approaches for scaffolding knowledge acquisition and skill development, as well as how to offer pathways for students to engage at different depths based on existing knowledge and/or level of interest. The seminar also provided me with a toolkit for continuously reflecting on and improving my teaching. Taken as a whole, ICDS empowered me to design more engaging and effective courses and changed the way that I approach teaching. Anyone who is committed to teaching will benefit from ICDS. The course I designed during ICDS helped me land a tenure track job and I am excited to be teaching it this fall.”

— **Peter Roady**, Ph.D. Candidate, Department of History

“I participated in the Inclusive Teaching Seminar and Evidence-Based Teaching in Science and Engineering Seminar to prepare for my future role as an instructor in an academic institution. As the classrooms become more diverse in terms of physical and cognitive abilities or socioeconomic and cultural backgrounds, we need to adapt our teaching practices to accommodate the different learning needs of the students in the classroom. These seminars provided a structured series of workshops that help us cultivate an inclusive classroom and facilitate student learning. They helped me reflect on my own beliefs, biases and positionality in the classroom as well as their potential impact on my teaching practices. After these workshops, I have a much more concrete understanding on how teaching practices affect student motivation, engagement and learning. They inspired me to adopt a more student-oriented perspective and develop strategies to support different learning needs and to utilize student diversity as an asset in the classroom.”

— **Sibel Sozuer**, Ph.D. Candidate, Department of Marketing, Columbia Business School

214 graduate student participants in CTL seminar programs

Assessing Teaching and Learning Seminar

The Assessing Teaching & Learning Seminar (ATLS) helps participants create a plan to assess teaching and student learning in the classroom. Over the course of four online modules, participants gained an understanding of Teaching as Research (TaR) by defining an original research question and developing their own TaR project proposal, drawing on the support of an online community of peers and the instructor. Participants learned about relevant data collection and assessment tools, both quantitative and qualitative, and completed a methods and data analysis section. The seminar culminated in June 2021 with the presentation of fully developed TaR proposals.

Evidence-Based Teaching in Science and Engineering Seminar

In the Evidence-based Teaching in Science and Engineering (ETSE) seminar, participants applied the principles of backward design to develop student learning objectives, aligned assessments, and active learning activities to better facilitate student learning, culminating in a syllabus for an introductory class in their discipline. This seminar was targeted toward graduate students and postdocs in sciences (natural, biomedical, health) and engineering who are teaching for the first time or looking to advance their teaching by engaging with the research on teaching and learning. ETSE ran in Spring 2021.

Inclusive Teaching Seminar

Graduate students participated in an in-depth series of workshops coordinated with Inclusive Teaching: Supporting All Students in the College Classroom, the massive open online course (MOOC) produced by the CTL that explores the principles and frameworks that define an inclusive teaching practice. The seminar took place in Spring 2021 and consisted of 6 sessions, each one debriefing a module of the MOOC.

Innovative Course Design Seminar

The Innovative Course Design Seminar, which ran in Fall 2020, allowed participants to explore evidence-based, inclusive, and online instructional design practices and apply these concepts to create a learner-centered syllabus that meets the challenges of teaching today. Participants applied the principles of backward design and inclusive teaching to develop context-specific learning objectives, aligned and scaffolded assessments, and a range of engaging activities across formats and contexts within the context of a single course, whether online, hybrid, or HyFlex.

Events and Courses

Ivy Plus Teaching Transformations Conference

Since 2017, the CTL has partnered with colleagues within the Ivy+ community to produce a one-day conference for graduate students who are especially committed to improving pedagogy. In 2021 the Ivy+ Teaching Transformations Summit ran online, designed and co-hosted by Columbia's CTL. Around 85 graduate students and administrators from Columbia, Brown, Caltech, Cornell, Dartmouth, Harvard, MIT, Penn, Princeton, Rice, Vanderbilt, and Yale gathered to share teaching approaches and engage in a series of frank and generative discussions. This summit was a unique chance for Columbia graduate students to form national connections with peers and professionals actively working to improve the academy through teaching development.

Supporting Hybrid and Online Learning and Teaching (SHOLT)

Developed in Summer 2020, Supporting Hybrid & Online Learning & Teaching (SHOLT) is an on-demand, self-paced course designed to help Columbia graduate student instructors in support roles develop effective teaching practices in online and hybrid courses. Four online modules cover topics including teaching as a team online, creating online community with students, engaging students in active and collaborative learning online, and assessing student learning online.

Advanced Topics in Teaching Workshops

In 2020-21, the CTL provided several advanced workshops to graduate students looking to acquire new pedagogical frameworks and to innovate their teaching. All workshops were held online.



Sample syllabi created by graduate students during the Innovative Course Design Seminar emphasizing creativity and student engagement.

Designing and Using Effective Rubrics: In this workshop, participants learned to apply an inclusive teaching lens to assessment design and feedback delivery through the development of rubrics. Participants explored three types of rubrics and tried their hand at developing an inclusive rubric for assessing student participation—an area often assessed, but at risk of being inconsistent or following opaque criteria. (Spring 2021)

Identifying and Engaging Students' Prior Knowledge: Participants explored a range of questions about how and why engaging students' prior knowledge matters and applied these provocations to their own teaching contexts. For example: What skills, knowledge, resources or values do your students bring to the classroom? Which of these resources might be beneficial to student learning? Which might pose challenges? What might you do with this information in service of your goals for student learning and course climate? (Spring 2021)

Learning by Observing: The Art of an Effective Teaching Observation: This workshop provided participants with a model for conducting observations of teaching that focus on instructional intention and student engagement techniques, as well as insights about the observer's own teaching development through observational practices. (Fall 2020 and Spring 2021)

Learning Communities, Journal Clubs, and Lounges

CTL Learning Communities, Journal Clubs, and Lounges are offerings for graduate students that build community around teaching development. They are designed to organically address graduate student interests as they cultivate instructional practices in today's teaching and learning environments.

"I really appreciated the time we spent thinking about prior knowledge as a benefit that can be amplified and activated in the classroom. This is a new perspective for me, and has really shifted how I think about student prior knowledge. It also reinforced the notion of thinking about students' whole identity, and considering not just their academic experiences but also their social and cultural experiences in what they bring to the classroom. I valued the information gained from the presentation and from discussions with others in terms of interventions and activities that we can use to gauge and activate student prior knowledge. I plan to use a number of these in my own teaching, such as setting personal learning goals, creating concept maps, and providing numerous reflection prompts. I found it useful to think about how to use these tools throughout the course, not just in the beginning as an intake survey, and to apply them not just for the sake of the teacher to know where gaps are but also for the student to gauge their own understanding and progress."

— **Stefanie Siller**, Ph.D. Candidate, Department of Ecology, Evolution, and Environmental Biology on participating in the *Identifying & Engaging Students' Prior Knowledge* workshop

CTLgrads Learning Communities

Drawing on support from the CTL, Senior Fellows from the CTL's fellowship programs work in interdisciplinary pairs or groups to design and co-facilitate two sequential discussions on teaching and learning topics. This year Senior Fellows hosted the following learning communities for their peers, all of which were held online:

Welcome to Session 1 of "Citational Practice as Critical Feminist Pedagogy"

A CTLgrads Learning Community

Hosted by Cat Lambert & Diana Newby

An online learning community hosted by CTL Senior Fellows. <https://bit.ly/37kWSbG>



Fall 2020

Considering the Whole Self in Teaching and Learning: Mental and Physical Wellbeing in the Classroom

- Adam Massmann, Earth and Environmental Engineering
- Abby Schroering, Theater

Pedagogies of Race and Oppression

- Brendane Tynes, Anthropology
- Dominic Walker, Sociology

Spring 2021

Access and Activism: Teaching Research Skills in the Undergraduate Classroom

- Yarran Hominh, Philosophy
- Kevin Windhauser, English & Comparative Literature

Citational Practice as Critical Feminist Pedagogy

- Cat Lambert, Classics
- Diana Newby, English & Comparative Literature

Pedagogies of Race and Oppression

- Brendane Tynes, Anthropology
- Dominic Walker, Sociology

CTLgrads Journal Club

CTLgrads Journal Club for graduate students and postdocs met every other week through the academic year. The sessions introduced participants to the research on teaching various disciplines (also known as Discipline-Based Education Research, or DBER) and engaged peer-reviewed articles through group discussions. Participants focused on how they can use education research in their own fields and beyond to inform their own teaching practices. Journal Clubs were held online.

This year Journal Club sessions focused on literature about learning online, as well as maintaining academic integrity in college classes. Journal Club readings helped to inform subsequent Teachers' Lounge conversations.

Teachers' Lounge

In the CTL's Lounges, graduate students and CTL staff converse informally about teaching approaches, drawing from research and one another's classroom experiences. 2020-21 Teachers' Lounges drew on research explored in CTLgrads Journal Club on engaging and effective online teaching, and linked that research to insights drawn from actual experiences in Columbia classes. Teachers' Lounges were held online.

Cognitive Overload for Instructors Teaching Online

In this session, participants considered the often competing demands on attention faced by instructors in the online environment and their impact on instructional efficacy and authority. Participants shared and listed various tactics that instructors can use to incorporate new technologies and pedagogical approaches, while at the same time minimizing the cognitive load associated with each. (Fall 2020)

Cognitive Overload for Students in the Online Class

In this session, participants considered the often competing demands on attention when learning in the online environment, and discussed the impact of these demands on retention and understanding. Participants then discussed questions such as: What can instructors do to focus and pace the attention of their students while interacting with them in digital spaces? How can supplemental or asynchronous materials help? In response, participants shared tactics for lessening extraneous cognitive load on students. (Fall 2020)

Presence and Engagement in the Online Class

In this session, graduate students considered how the online learning environment affects the ability of instructors and students to be fully present and engaged. Participants collectively generated a number of ideas for increasing participation and engagement that can drive learning online. (Fall 2020)

Lessons from a Pandemic: Productive Participation

In this session, participants discussed ways to inspire and assess student participation in online or HyFlex classes and thought about what tactics might map over to and enrich in-person instruction. (Spring 2021)

Lessons from a Pandemic: Testing and Trust

How has the experience of running classes online clarified what is important about traditional ways of measuring our students' knowledge and capacities? What adjustments have we needed to make when designing and giving tests for students in order to navigate the emotional and logistical challenges of this difficult and unsettled time? This Lounge centered on a frank discussion of topics such as proctoring, maintaining or relaxing standards, accommodations, and trust. (Spring 2021)

2,280 graduate student participants in CTL workshops

APPROACHING THE JOB MARKET

Approaching the Job Market Workshops

CTL offers an array of workshops for graduate students preparing to represent their teaching experiences and priorities in applications, interviews, and campus visits. In 2020-21, these workshops included the following. All were held online.

Syllabus from Scratch: Participants explored key elements of an effective syllabus and defined learning goals and assessment methods to promote student learning. (Fall 2020)

The Teaching Statement and Teaching Portfolio: Participants learned about the content and format of a teaching statement and teaching portfolio for the academic job market, identified and analyzed the characteristics of each, and began drafting a teaching statement and collating evidence for a teaching portfolio. (Fall 2020)

Writing a Diversity Statement: In this workshop, participants learned about the components of a reflective and thoughtful diversity statement and brainstormed a first draft. (Fall 2020)

Building Your TDP Teaching E-Portfolio: In this session, participants learned about the functionality of the new Columbia Digital Sandbox platform supported by Columbia University Libraries, engaged with example e-portfolio templates, discussed best practices for showcasing their teaching development through visual and verbal media, and took the first steps toward setting up their own teaching e-portfolio to guide future work. (Spring 2021)

Representing Your Teaching Summer Intensives: In a week of events, participants focused on representing their teaching in different parts of their academic job application: teaching statements, teaching portfolios, syllabi, diversity statements, and presenting their teaching in interviews and on the market. (Summer 2020)

Teaching Statement Online: In this multi-week online workshop, participants learned about, wrote, and revised a teaching statement in order to define their instructional values and prepare for the academic job market. (Spring 2021)

SERVICES

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

instructors. All services in the 2020-21 academic year were held online.

Consultations

Graduate students requested 726 one-on-one consultations with CTL staff to receive support for their teaching and learning needs. Common consultation topics included syllabus design, integrating instructional technologies into class activities, lesson planning, and creating and refining a teaching statement and teaching portfolio.

Microteaching

The CTL offered microteaching practice sessions for small groups of graduate students and postdocs to rehearse teaching practices and get direct feedback and support. These sessions were led by doctoral students who completed CTL training to become Microteaching Facilitators

81 graduate student participants in CTL Microteaching sessions

Mid-Course Reviews

The CTL offered Mid-Course Reviews (MCR) for graduate student instructors seeking quick, anonymous student 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.

Teaching Observations

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

Teaching Consultants

Teaching Consultants (TCs) are trained by CTL to provide classroom teaching observations, facilitate microteaching sessions, and run mid-course reviews for graduate students who request these services. In 2020-21, Senior TCs mentored the Teaching Consultant cohort, provided consultations to graduate students, and worked with CTL on special projects.

2020-2021 Senior Teaching Consultants:

Mary Catherine Stoumbos , Music	Zachary Domach , Religion
----------------------------------------	----------------------------------

2020-2021 Teaching Consultants:

Tylar Colleluori , Italian	Thomas Preston , Germanic Languages
Claire Dillon , Art History and Archaeology	Abby Schroering , Theater
Anne Potter , Theater	Caleb Tulloss , Electrical Engineering

254 graduate student participants in CTL Mid-Course Reviews

“Sometimes TAs have to lead discussion sections for two or more different groups of students for the same course (say a large introductory course or a global core). I had very different experiences with my groups and it was hard to assess what was working and what wasn’t. The MCR helped me understand exactly that. I got insight into why I was doing well with one group and not so much with the other. I incorporated the feedback that the MCR collated, implemented suggested changes, and had a much better experience with both groups in the second half of the semester!”

— **Rohini Shukla**, *Ph.D. Candidate, Department of Religion*

“The meetings with my MCR facilitator Tylar Colleluori, both before and after the MCR, felt very intentional and meaningful. During the pre-MCR meeting, Tylar made it clear that this would not be a request for generic feedback from my students, but actually would be tailored to my specific concerns about the course. The post-MCR debrief was helpful in interpreting my student’s feedback, especially when it came to turning their statements into actionable feedback. My students seemed to validate some of the bold choices I had made as a teacher, and about which I wasn’t sure. For example, I spent a significant amount of time on the first day of class coming up with a meaningful community agreement for the workshop and trying to signal a commitment to inclusive teaching, which many students tied during the MCR to the comfortable learning environment we had created together. That emboldened me to keep spending significant class time fostering a space where it’s okay to be vulnerable and honest while trying to do some serious learning.”

— **V Allard**, *M.F.A. Candidate, Department of Writing, School of the Arts*

140 graduate student participants in CTL Teaching Observations

“I originally signed up for a Teaching Observation to receive feedback on how I could better manage course flow and better integrate different forms of media into my lesson plans. However, the biggest lesson I took away from the post-observation meeting was how to be more confident and positive about my pedagogical choices and to appreciate when a lesson goes well. It was also helpful that I could work with a graduate student from my own department because all of their recommendations were both precise and easily integratable.”

— **Chas Firestone East**, *Ph.D. Candidate, Department of Italian*

“The CTL provided a trained teaching observer for my first ever full-length lecture. It was a valuable experience, and when I give another lecture next semester those students will benefit from it. The key thing I learned from it is that, while I want the lectures that I attend to be dense with information, I should make the lectures that I give less dense, and more accessible. They need brief breaks in which students may shift gears or recover their attentive energies.”

— **Nolan Bensen**, *Ph.D. Candidate, Department of East Asian Languages & Cultures*



Student Spotlight:

Claire Dillon, Ph.D. Candidate, Department of Art History and Archaeology; Teaching Observation Fellow (TOF), 2019-2020, Teaching Consultant (TC) 2020-21

In what ways have your own teaching practices been strengthened by your sustained pedagogical development?

My experience as a fellow and consultant helped me better articulate my own pedagogical development. This was especially useful as I completed the Advanced Track of the Teaching Development Program (TDP) this year, and began to consider how these skills can be leveraged within and beyond academia. The CTL provides so many opportunities to cultivate teaching strategies not only by learning and implementing them, but also by analyzing, discussing, and presenting them in a range of settings, from programs with sustained cohorts of graduate students to private consultations for the job market.

My experiences as a TOF and TC also allowed me to implement the strategies that I had learned in the Innovative Teaching Summer Institute, the Inclusive Teaching Seminar, and all of the other CTL programs I've attended. Working with peers created unique opportunities to reflect on and expand our knowledge by exchanging ideas and trying out new techniques, and this community was all the more valuable after we were thrown into online instruction and had to quickly adjust our methods of instruction. Teaching is always a work in progress, and this collaborative experience allowed me to fully take advantage of that process.

Please provide two strategies that you use in your own

teaching practice that other graduate student instructors might consider incorporating into their own practice.

1. Decode your discipline: The process of decoding your discipline entails identifying obstacles that students will encounter when beginning to learn the skills of a given field. Since graduate instructors have years of experience in their disciplines, it can be difficult to anticipate the challenges of approaching this material for the first time. A decoding interview is one way to address this issue: presenting a disciplinary task to someone outside of your field can provide new insight to identify gaps between an instructor's expectations and their students' abilities to meet them. Breaking down expectations in an interdisciplinary conversation helps instructors clarify their language and lessons to better support their students throughout a course.

2. Implement backward design and scaffolding: Backward design begins by identifying a course's learning objectives and determining how they will be assessed throughout a course, before designing the rest of the class around these components. By moving backward from the goals and assessments, it's easier to design all lessons and assignments so that they cumulatively prepare students to meet their objectives. This allows instructors to scaffold, or create additional supports for students, as they gradually learn to master specific skills and concepts. While many instructors do this instinctively, practicing backward design and scaffolding as deliberate strategies helped me identify gaps in my instruction. For example, after a decoding interview about the first assessment of many art history courses—the formal analysis paper—I used backward design to create new scaffolds for my students before giving them this assignment. I decided to incorporate more deliberate, in-class practice with this skill, and designed a shorter preliminary assessment to help prepare them for the paper assignment. After writing the paper, students provided consistent feedback that practicing these skills in and outside of class enhanced their capabilities and confidence when writing the paper.

For the full spotlight:

ctl.columbia.edu/graduate-spotlight/claire-dillon

“In the unique circumstances of the pandemic, student teachers found themselves in need of considerably more support, and importantly, new kinds of support not commonly offered during normal years of teaching. For me, the most valuable part of my experience [as an LTF] was not only the opportunity to convey best practices of teaching, but also building up a (virtual) community of graduate teachers and TAs, instilling confidence, boosting morale, and in doing so improving the experience of both teaching and learning in the Columbia community.”

— **Francesca Zhao**, PhD student, East Asian Languages and Cultures

and Design Fellowship, the CIRTL Fellowship, and the Teaching Consultant opportunity, as well as support for doctoral students attending teaching conferences.

57 graduate student fellows and teaching consultants

Lead Teaching Fellows

Lead Teaching Fellows design and facilitate teaching-related events and workshops for peers in their home departments, with support from the CTL. The fellowship provides an interdisciplinary professional development experience for students across campus who are committed to exploring and advancing pedagogical practices.

This year Senior Lead Teaching Fellows mentored a roster of 33 Lead Teaching Fellows as they designed and produced 66 teaching-related workshops and discussions across the University. See page 60 for a list of workshops facilitated by Lead Teaching Fellows for their schools and departments. Fellows also participated in a series of interdisciplinary gatherings to plan and reflect on their departmental events.

FELLOWSHIPS

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

This year the CTL offered the Lead Teaching Fellowship, the Teaching Assessment Fellowship, the Technology



Teaching Fellows and CTL staff gather in December 2020 over Zoom to celebrate the holiday season.

2020-2021 Senior Lead Teaching Fellows

Yarran Hominh , Philosophy	Cat Lambert , Classics
Adam Massmann , Earth and Environmental Engineering	Diana Newby , English and Comparative Literature
Abby Schroering , Theater	Kevin Windhauser , English and Comparative Literature

2020-2021 Lead Teaching Fellows

M Constantine , Anthropology	Chazelle Rhoden , Anthropology
Zoë Dostal , Art History & Archeology	Andrew Liebau , Biological Sciences
Justin Shaffer , Biological Sciences	Natalie Saenz , Chemistry
Mary-Evelyn Farrior , Classical Studies	Emma Ianni , Classics
Marissa Swan , Classics	Sara Hamilton , Earth and Environmental Engineering
Jonathan Lambert , Earth and Environmental Sciences	Francesca Zhao , East Asian Languages and Cultures
Catherine Suffern , English and Comparative Literature	Ami Yoon , English and Comparative Literature
Cosima Mattner , Germanic Languages	Skye Savage , Germanic Languages
Aleksandra Jakubczak , History	Andrew Wyatt , Italian
Elliot Oblander , Marketing	Karim Malak , Middle Eastern, South Asian, & African Studies
Sean Colonna , Music	Sonja Wermager , Music
April Ancheta , Nursing	Martina Botti , Philosophy
Donald Casler , Political Science	Benjamin Silver , Psychology
Emily FitzGerald , Religion	Nick Tackes , Religion
Alex Pekov , Slavic Languages	Vera Senina , Slavic Languages
William Frey , Social Work	Elizabeth Adetiba , Sociology
Florian Grosset , Sustainable Development	

Teaching Assessment Fellows

Teaching Assessment Fellows (TAFs) are Columbia University doctoral students who work closely with the Center for Teaching and Learning during the academic year to support and assess teaching initiatives. TAFs engage directly with strategies and methodologies for evaluating the efficacy of teaching as they help to analyze the impact of teaching projects proposed by Columbia faculty and funded by the Office of the Provost.

TAFs and Project Assignments:

- **Alyssa Basmajian**, Sociomedical Sciences: Wilderness and Disaster Medicine course design (Christopher Tedeschi, Emergency Medicine) + Re-Imagining Radiology Education: An Interactive Blended Learning Approach to Radiology Education Using the Flipped Classroom Pedagogy (Pallavi Utukuri, Radiology)
- **Lauren Horst**, English & Comparative Literature: Reimagining the Humanities Lecture in a Transnational, Post- Pandemic World (Denise Cruz, English)
- **Jessie Oehrlein**, Applied Physics and Applied Mathematics: Introducing Experimental Design to Promote Active Learning (Yevgeniy Yesilevskiy, Mechanical Engineering)
- **Nicholas Pang**, Sociology: Refining Goals and Redesigning the Flagship Introductory Psychology Course: Fostering Engagement for Deeper, Longer-Lasting Learning (Caroline Marvin, Psychology) + Re-Imagining Radiology Education: An Interactive Blended Learning Approach to Radiology Education Using the Flipped Classroom Pedagogy (Pallavi Utukuri,

Radiology)

- **Stefanie Siller**, Ecology, Evolution, and Environmental Biology: Conservation in the City: Exploring Topics in Conservation Biology through Problem-Based Learning in New York City Parks (Sara Kross, E3B)
- **Mary Catherine Stoumbos**, Music: Exploring the Impact of Academic Podcasting on Foreign Language Learning (Zhongqi Shi, EALAC)

Technology & Design Fellows

CTL Technology & Design Fellows are doctoral students interested in user experience and information design, media analysis, and/or educational technology who work closely with the CTL to improve the use of technology in learning. In Spring 2021, the Technology and Design Fellow worked closely with the CTL developers who build and support Mediathread, a CTL-designed, web-based community platform that supports multimedia analysis in many courses at Columbia and beyond. For more information about Mediathread, visit:

<https://mediathreadctl.columbia.edu/>

“I applied to the TAF program because I wanted to gain research experience and to improve my teaching. The lessons I have learned throughout the TAF program will serve me well in the future for my own research projects and when I plan to TA or teach my own course. I will be better prepared to assess not only how well the students are engaging with the coursework, but how well they are responding to my teaching design. I have also learned quite a lot about teaching and how course design impacts student learning. The ability to read and analyze student responses concerning a particular teaching design has taught me about teaching techniques and possible problems that one may encounter when using a particular pedagogical approach. I have learned about the benefits of creating and implementing innovative teaching designs. Another TAF and I discussed how we enjoy the traditional structure of the classroom, but through this program we have learned that rethinking how one teaches can have a monumental impact on student learning and engagement. In the face of the COVID-19 pandemic instructors and students alike were able to weather extremely difficult circumstances in large part because of innovative teaching designs.”

— **Alyssa Basmajian**, Ph.D. Candidate, Department of Sociomedical Sciences

Technology and Design Fellow:

- **Milan Terlunen**, English and Comparative Literature

Fellows in Academic Administration

In 2020-21, in partnership with GSAS, the CTL hosted two Fellows in Academic Administration to serve as Teaching Development Program (TDP) Consultants. In this capacity, the FAAs tracked and assessed TDP participant activities, collaborated with CTL staff to conduct semester-long assessment projects to quantify program impacts and understand participant experiences, and suggested strategies for communication, outreach, and administration.

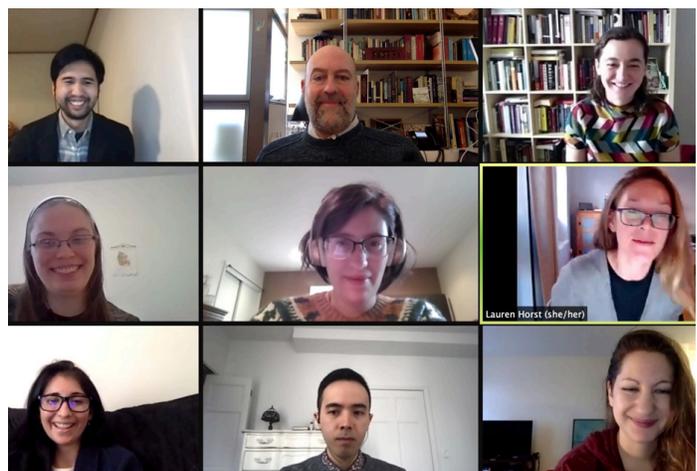
2020-21 Teaching Development Program

Consultants (FAAs) and Assessment Projects:

- **Abby Schroering**, Theater: Go for the Goals: Measuring the Impact of Lead Teaching Fellow-Led Events Documented in the TDP (Fall 2020)
- **Niyati Shenoy**, Middle Eastern, South Asian, & African Studies: Pathways for the Disciplines: Findings and Takeaways from TDP Participant Feedback (Spring 2021)

Teaching Conference Support

Doctoral students who wished to attend conferences or training centered on teaching practices in higher education were sponsored by the GSAS Office of the Dean and funded by the Office of the Provost. Students received funds for attending or for presenting at a conference or training that helped them develop as instructors or explore discipline-based educational research (DBER).



Teaching Assessment Fellows and CTL staff meet over Zoom.



Student Spotlight:

Jessie Oehrlein, Ph.D., Department of Department of Applied Physics & Applied Mathematics; Teaching Assessment Fellow, 2019-2021

What have you enjoyed most about your work in the TAF program?

I've loved working collaboratively with interdisciplinary teams. My main two projects as a TAF (the CTL's Inclusive Teaching MOOC and a course redesign for Mechanical Engineering Lab I) both had larger teams of folks who really wanted to be involved in the assessment process. So I got to spend a lot of time with people involved in different parts of these projects—faculty, student teaching assistants, CTL learning designers, and TAF mentors—thinking about the data we wanted to collect and exploring the data we had and asking what was interesting, what we wanted to know, what stood out to us. And because we were bringing different backgrounds and different relationships with the courses/projects into the assessment process, our answers to those questions differed and often complemented each other well. I really rediscovered that I like being part of projects that need a range of expertise and that need many people involved in different ways.

How was the experience of working with faculty on live assessment projects?

Working with the faculty and other members of the project teams was one of my favorite parts of being a TAF. Initially, there's a period of trying to learn as much as possible: reading the project proposal, asking

the project team questions, figuring out where things stand. I came into one project where data was already collected and ready for analysis; in the other, we were mid-course and still needed to develop some of the assessment instruments. Both years, I was new to some of the assessment methods that we wanted to use, so with the help of the TAF mentors and other TAFs, I was learning those as we went and often then turning around and helping to teach the rest of the project team about those methods. Having the faculty participating in the assessment work meant that their subject matter expertise and teaching approaches could really inform the assessment, and I think that led to more useful results.

And working on live assessment projects was sometimes unpredictable! The assessment process didn't always go like we had planned or hoped. But we were always still able to collect and analyze multiple kinds of data to get a well-rounded view of student learning and experience in the courses. For example, maybe there were assessment questions we had hoped to answer in a lot of depth with focus groups, but we could still learn something about the answers to those questions from survey data if we changed our approach a bit.

In what ways has interacting with peers strengthened your own teaching practices?

There are approaches or strategies that I've incorporated into my classroom directly as a result of a peer's emphasis on that approach and how much they've shared about it. The example that always comes to mind for me on this front is reflection. I knew that metacognitive work was in many ways where the learning really happens for students, but the push from knowing that and acting on it occasionally to really prioritizing reflection in the classroom was a peer—a peer who had read about and tried out lots of approaches to reflection, who was happy to talk about all of it, who clearly thought it was important, with whom I could work through some of the literature and my own ideas on reflection. But more broadly: observing peers and being observed by peers have directly given me ideas and teaching moves that I use in my own classroom.

For the full spotlight:

ctl.columbia.edu/graduate-spotlight/jessie-oehrlein

Supported students and conferences:

- **Zachary Domach** (Religion) and **Andrew Richmond** (Philosophy): POD Network Annual Conference. November 11-13, 2020
- **Jessie Oehrlein** (Applied Physics and Applied Mathematics): Joint Mathematics Meetings and American Meteorological Society Annual Meeting. January 6-15, 2021.
- **James Callahan** (Chemistry): NARST 94th Annual International Conference. April 7-10, 2021.

CUSTOMIZED PROGRAMS

- 1 Session for the School of Professional Studies: TA Town Hall, July 2, 2020
- 3 Sessions for Core Orientation (2 on Syllabus Design and 1 on Inclusive Teaching Discussions), August 24 and 26, 2020
- 1 Session for the Graduate School of Arts and Sciences, Office of Academic Diversity and Inclusion: Fellows Facilitation Session, November 23, 2020
- 1 Session for the School of Social Work's Doctoral Proseminar: Introduction to CTL Resources, December 9, 2020
- 1 Session for School of the Arts: Teaching Development Program Launch, January 15, 2021
- 1 Session for the Department of Economics: Introduction to Mentorship Workshop, February 19, 2021
- 1 Session for the Department of Music G6000 Course: Active Learning, March 19, 2021
- 1 Session for the Graduate School of Arts and Sciences, Office of Academic Diversity and Inclusion, Summer Research Program: Curriculum Planning, May 25, 2021

66 of workshops facilitated for departments by Lead Teaching Fellows

202 graduate student participants in customized workshops

Peer Observation Programs

The CTL runs Peer Observation Programs (POP) in the Graduate School of Arts and Sciences' Teaching Scholars program and the Core Curriculum. POP participants pair up, observe one another's classes, and debrief with each other, drawing on guidance and instruments provided by the CTL. POP meetings in the CTL allow the full cohort of participants to prepare for and reflect on the peer observation process. The following POP programs were held in the 2020-2021 academic year:

- Core POP Kickoff, October 23, 2020
- Teaching Scholars POP Kickoff, December 2020
- Core POP Mid-Year Meeting, January 22, 2021
- Teaching Scholars POP Mid-Semester Meeting, March 19, 2021

LEAD TEACHING FELLOW EVENTS

LTF events are led by Lead Teaching Fellows to serve graduate student instructors in their respective departments. Below is a list of events designed and facilitated by Lead Teaching Fellows in the 2020-2021 academic year. All events were held online. In addition, due to remote pandemic working conditions, several Lead Teaching Fellows opted to create interactive, asynchronous resources to better meet the needs of their departmental colleagues. These resources are noted as such below.

Anthropology

- Interactive Resource: Learning Teaching Writing (M Constantine, Fall 2020)
- What Do We Value When We Evaluate Writing? (M Constantine, Spring 2021)
- Interactive Resource: "Tools & Support for Leading Discussion Sections" TAing Anthropology Resource Archive (Chazelle Rhoden, Fall 2020)
- How to Cultivate Personal Wellness while Focusing on Anti-Oppressive and Student-Centered Pedagogical Practices? (Chazelle Rhoden, Spring 2021)

Art History and Archeology

- Art History TA Orientation (Zoë Dostal, Fall 2020)
- Cultivating Critical Pedagogy in Art (Zoë Dostal, Spring 2021)

Biological Sciences

- Face-to-Screen-to-Face: How to Be the Most Effective



Student Spotlight:

Niyati Shenoy, Ph.D. Candidate, Department of Middle Eastern, South Asian and African Studies; Fellow in Academic Administration Teaching Development Program (TDP) Consultant, 2020-21

What motivated you to apply for the TDP Consultant position through the GSAS Fellowship in Academic Administration? What did you gain from the experience?

After I enrolled in the TDP during my second year at Columbia, I became curious about how a program to teach teaching might be designed and run. I was aware that the TDP was a relatively new program, but also that many, many graduate students were already finding it helpful as a space to combine their research and disciplinary interests with their thoughts about, and ambitions for, good teaching. Working as a Fellow in Academic Administration seemed like a way to leverage the skills we were learning as individual instructors teaching specific courses—course design, student engagement, assessment—into a sort of mini-glimpse at department-level, program-level, and curriculum-level planning. For example: How is a series of courses, or a ‘concentration’, actually designed? I gained a lot from this experience, especially some much-needed practice at broad, meta-level thinking about things such as intention, structure, and purpose in a context that was not immediately tied to my academic discipline.

What have you enjoyed most about your engagement with TDP offerings?

The thing I still enjoy the most about engaging with the

TDP is being able to see how others think. Reading peers’ draft syllabi during the Innovative Course Design Seminar, for instance, and asking questions about them afterward, was very interesting—as was experiencing practice lessons or lectures from totally different fields during microteaching sessions. I got even more of this as a TDP Consultant, because I was reviewing workshop reflections and getting to know more about how fellow graduate students understood the work of teaching.

In what ways have your own teaching practices been strengthened by your sustained pedagogical development?

For my dissertation, I am researching the varied approaches of British colonial law to sexual violence in nineteenth century India to uncover better explanations for the prevalence of sexual violence in India today. Participating in the TDP has helped me understand more clearly that though this topic is a heavy one, the things I have learned in the course of trying to understand this history can be resources for my own teaching, and that the history itself is not just something tragic to pass over in sadness and discomfort, but a source of accountability and commitment. In short, I think the CTL has changed the way I reflect on my own motivations and made me more empathetic and aware as an instructor.

Provide a strategy that you use in your own teaching practice that other graduate student instructors might consider incorporating into their practice?

One of the mainstays of my teaching practice is a belief in close reading and the particular staying power of voices from the past. In discussion sections I frequently hand out short passages from historical source material that students haven’t seen before, and devote some time to discussing and interpreting them even if they aren’t what is assigned. The main purpose of this, for me, is having a low-stakes activity to impress upon students that there is no ‘right’ way to interpret, or even react to, the past; any and all reactions, identifications, thoughts, and musings are welcome. Ultimately my hope is to show that ‘history’ is fundamentally a speculative, contingent, and reversible quality, not a destiny filled with rights and wrongs, fixed and unfixable.

- Virtual Teacher (Andrew Liebau, Fall 2020)
- Interactive Resource: 2020 and Beyond: How to Make the Most of the Virtual Learning Environment (Andrew Liebau, Spring 2021)
- Student Assessment in the Online Classroom (Justin Shaffer, Fall 2020)
- Not Just a TA: Opportunities for Professional Growth in Instruction and Mentorship (Justin Shaffer, Spring 2021)

Chemistry

- Zoom Chemistry: Tackling Online TA-ing (Natalie Saenz, Fall 2020)
- Effective Mentoring Methods in the Lab Environment (Natalie Saenz, Spring 2021)

Classical Studies

- Supporting Undergraduate Students in Classical Studies (Mary-Evelyn Farrior, Fall 2020)
- Reinventing the Wheel: Personalizing Standard Course Offerings (Mary-Evelyn Farrior, Spring 2021)

Classics

- Collaborative Teaching: Ethics & Strategies (Emma Ianni, Fall 2020)
- Interactive Resource: Collaborative Teaching: Ethics & Strategies Dropbox (Emma Ianni, Spring 2021)
- Crafting a Genuine Classroom: Breaking Down Barriers In-Person and Online (Marissa Swan, Fall 2020)
- “It’s Just the Way it Is”: Critiquing Graduate Student Pedagogy in the Field of Classics (Marissa Swan, Spring 2021)

Earth and Environmental Engineering

- Establishing a PhD Student Peer-to-Peer Mentoring Scheme (Sara Hamilton, Fall 2020)
- Mentoring in a Lab Setting (Sara Hamilton, Spring 2021)

Earth and Environmental Sciences

- Re-examining Teaching Strategies for Foundational Earth Science Topics (Jonathan Lambert, Fall 2020)
- Scaffolding Assessments in the Natural Sciences (Jonathan Lambert, Spring 2021)

East Asian Languages & Cultures

- Interactive Resource: “Teaching and Learning in Asian Studies” Podcast (Francesca Zhao, Fall 2020)
- EALAC PhD TA Experience Sharing Session (Francesca Zhao, Spring 2021)

English and Comparative Literature

- Designing Rubrics for Transparent and Efficient Essay Grading (Catherine Suffern, Fall 2020)
- User-Friendly Online Whiteboard & Collaboration Tools for Hybrid and Remote Instruction (Catherine Suffern, Spring 2021)
- Efficient Essay Grading for University Writing (Ami Yoon, Fall 2020)
- Interactive Resource: Feminist Pedagogy (Ami Yoon, Spring 2021)

Germanic Languages

- Teaching Language with Poetry (Cosima Mattner, Fall 2020)
- Spring Cleaning of German Department Teaching Materials Dropbox Archive (Cosima Mattner, Spring 2021)
- Assessing Textbook Materials: A Cross-Language Dialogue (Skye Savage, Fall 2020)
- Visual Design for Instructors (Skye Savage, Spring 2021)

History

- How to Teach Undergrads Academic Writing (Aleksandra Jakubczak, Fall 2020)
- Interactive Resource: Translating TA Training into a Teaching Portfolio for the Job Market (Aleksandra Jakubczak, Spring 2021)

Italian

- Creating an Inclusive Italian Language Classroom (Andrew Wyatt, Fall 2020)
- Never Grade Again: Rethinking Assessment and Grading Systems (Andrew Wyatt, Spring 2021)

Marketing

- Transitioning from PhD to Junior Faculty (Elliot Oblander, Fall 2020)
- Teaching with the Case Method (Elliot Oblander, Spring 2021)

Middle Eastern, South Asian, & African Studies

- From Classroom to Job Market: MESAAS Pedagogy, Instructor Identity, and the Disciplinary Straitjacket (Karim Malak, Fall 2020)
- MESAAS Pedagogy on the Job Market (Karim Malak, Spring 2021)

Music

- Inclusive Mastery Objectives Workshop (Sean Colonna, Fall 2020)
- Empowering Students and Communicating High Expectations Through Responses to In-Class Participation (Sean Colonna, Spring 2021)
- Teaching to Listen (Sonja Wermager, Fall 2020)
- Designing Projects to Promote Student Inquiry and Engagement (Sonja Wermager, Spring 2021)

Nursing

- Classroom Tips for Nurse Educators: Fostering Inclusivity as the Most Trusted Professionals (April Ancheta, Fall 2020)
- Interactive Resource: Columbia University School of Nursing Microsoft Teams Site (April Ancheta, Spring 2021)

Philosophy

- What Counts as Shared Knowledge in the Philosophy Classroom (Martina Botti, Fall 2020)
- The Art of Asking Questions (Martina Botti, Spring 2021)

Political Science

- Inclusive Teaching in a Post-COVID World (Donald Casler, Fall 2020)
- Political Science Teaching Workshop Series (Donald Casler, Spring 2021)

Psychology

- Being a Teacher vs. a Person Who Teaches (Benjamin Silver, Fall 2020)
- Exploring and Confronting Injustice in the History of Psychology (Benjamin Silver, Spring 2021)

Religion

- What We Talk About When We Talk About Religion: TA-ing in the Time of Plague (Emily FitzGerald, Fall

2020)

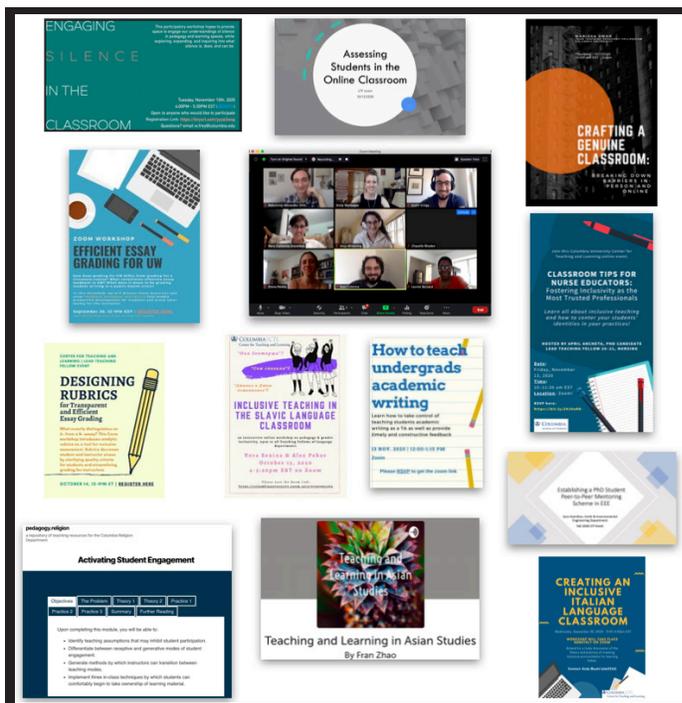
- “Why Bother?”: How to Battle Malaise in Ourselves and Our Students (Emily FitzGerald, Spring 2021)
- Interactive Resource: Activating Student Engagement (@Pedagogy.Religion) (Nick Tackes, Fall 2020)
- Course Design Workshop: Rethinking Assumptions, Grades, Assessment (Nick Tackes, Spring 2021)

Slavic Languages

- Inclusive Teaching in the Slavic Language Classroom (Alex Pekov & Vera Senina, Fall 2020)
- Creating a Competitive Teaching Portfolio (Alex Pekov & Vera Senina, Fall 2020)
- Songs & Poems in Teaching Slavic Languages (Alex Pekov, Spring 2021)
- Interactive Resource: Columbia SlavGrad: Teaching Materials Archive (Vera Senina, Spring 2021)

Social Work

- Engaging Silence in the Classroom (William Frey, Fall 2020)
- Hopes and Fears of Teaching (William Frey, Spring 2021)



A sample of advertisements for online departmental LTF events.

Sociology

- Teaching During Crisis (Elizabeth Adetiba, Fall 2020)
- Marginalized Identities, Empowered Minds: Steps for Ensuring Classroom Success while Navigating Personal Identity (Elizabeth Adetiba, Spring 2021)

Sustainable Development

- Hosting Inclusive and Effective (Virtual) Office Hours (Florian Grosset, Fall 2020)
- Interactive Resource: Reflecting on Teaching Engagement (Florian Grosset, Spring 2021)

Instructional Technology Support

The CTL Instructional Technologies group works collaboratively with Columbia instructors and CTL colleagues to support teaching and learning through the purposeful use of media and technology, engaging in a range of projects requiring software development, interface and experience design, media production, and project management.

The group is composed of two teams: the media production team and the software development and design team. Leveraging their extensive experience, both teams seek to build digital experiences that augment the curriculum, exploring how technology and media can improve and enhance the student's learning experience. All CTL projects adhere to best practices, using well-documented processes to create efficient, effective, and accessible content, tools, and resources. Where possible, projects are shared to the benefit of audiences beyond the university.

The group advocates for and oversees a range of educational technology platforms. Members of the group represent the CTL at the University's IT Leadership Council and the Academic Technologies Leadership Group. The group ensures that the CTL's practices are compliant with University policies around accessibility, identity protection and data stewardship, issues that have become critical and complicated.

During the 2020-21 academic year, the CTL Instructional Technologies group was instrumental in supporting and implementing online resources and systems to support faculty, staff and graduate student instructors teaching in remote and hybrid environments due to COVID-19. The group also provided CTL staff support with the infrastructure, internal communication, and training necessary to successfully work remotely.

Instructional Technology Projects in 2020-2021

SUPPORT FOR PROVOST'S TEACHING AND LEARNING GRANTS

The Instructional Technologies group is an essential resource for the Provost's Funded Teaching and Learning Grant projects, including the Innovative Course Design program and the Massive Open Online

Courses (MOOCs) program. The group provides project management, media production, software development and technology expertise to faculty partners. See page 24 for the full list of 2020-2021 Provost's Funded Teaching and Learning Grant projects.

Below are highlighted projects that required considerable work from the Instructional Technologies group in the 2020-2021 academic year:

New Projects

Academic Integrity Pre-Arrival Tutorial

Victoria Malaney-Brown, *Office of the Dean, Director of Academic Integrity, Columbia College & Columbia Engineering*

CTL staff collaborated with Victoria Malaney-Brown to enrich the Academic Integrity Pre-Arrival Tutorial course experience, which all SEAS and Columbia College incoming undergraduates must complete during the summer prior to their first class. Work included incorporating additional video content, making case studies more interactive, and updating a post-tutorial survey. All of these facets required a re-imagining of how they are currently implemented. In the course, students must consider what it means to pursue academic integrity at Columbia, think through and share their perspective on ethical scenarios, and review available Columbia personnel and resources that can help them "Wear the Crown with Honor."

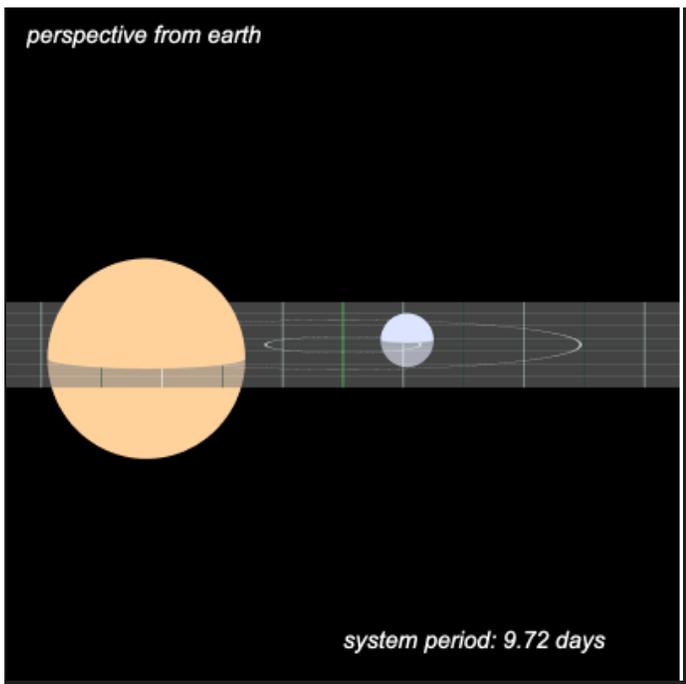
Austere Medicine

Christopher Tedeschi, *Associate Professor of Emergency Medicine at CUIMC*

CTL staff worked with Christopher Tedeschi on his Innovative Course Design Grant, "Austere Medicine," to conceive and build a unique introduction to emergency medicine practices. The multifaceted project included two multimedia interactives, instructor lecture and how-to videos, Storyline modules, and a rich CourseWorks instance. All the materials were designed to instruct students in practicing medicine in resource-limited settings. The learning materials were rolled out in Professor Tedeschi's Summer A session of "Wilderness, Environmental and Disaster Medicine."

Read more about this project on page 43.

URL: austere-medicine.ctl.columbia.edu



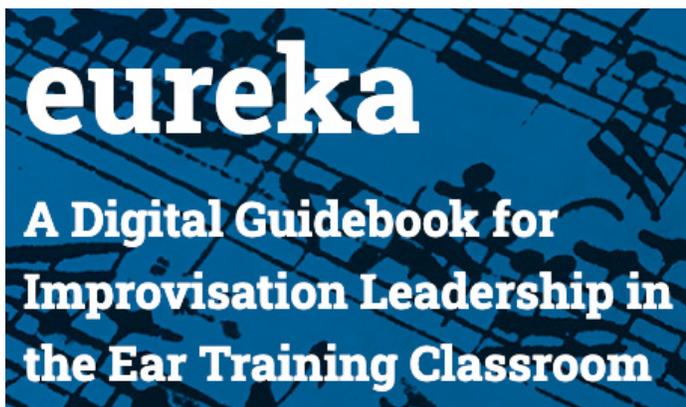
Astronomy simulation of the Eclipsing Binary Star simulator.

Astronomy Simulations

David Helfand, *Professor and Chair, Department of Astronomy*

The Astronomy Simulations team continued its mission to port Flash-based simulations to a more sustainable technology. The simulations were originally created under the direction of Professor Kevin Lee at the University of Nebraska-Lincoln and are used by Professor Helfand in his Columbia courses. This year, five additional simulations were completed: the Exoplanet Transit simulator, the Eclipsing Binary Star simulator, the Motions of the Sun simulator, the Hydrogen Atom simulator, and the Gas Retention simulator

URL: columbiactl.github.io/astro-simulations/



The Books to Bytes research cycle.

Books to Bytes: Navigating the Research Ecosystem

Barbara Rockenbach, *Associate University Librarian for Research and Learning, Columbia University Libraries*

Launched in September 2020, the Books-to-Bytes project provides students and instructors an engaging and accessible guide to navigating the University's research ecosystem. The tool includes six multimedia-rich modules that define the research cycle, provides students with practical strategies, and covers related topics such as recognizing bias and managing citations. The modules are available to all students and faculty via CourseWorks.

URL: library.columbia.edu/services/faculty/modules.html

Clinical Exam Interviewing in Primary Care Settings

Nataliya Pilipenko, *Major Clinical Year, Primary Care Clerkship, Vagelos College of Physicians and Surgeons*

CTL staff worked with Nataliya Pilipenko to combine several modalities of teaching and learning by redesigning the "Clinical Interviewing in the Primary Care Clerkship" into a flipped, virtual class with in-person clinical encounters, lecture videos, and a bibliography of resources for independent study, video vignettes of scripted clinical encounters to demonstrate target interview behaviors, and self-assessments. The course aims to promote students' comfort and competence when interviewing patients in clinical, primary care settings.

Read more about this project on page 45.

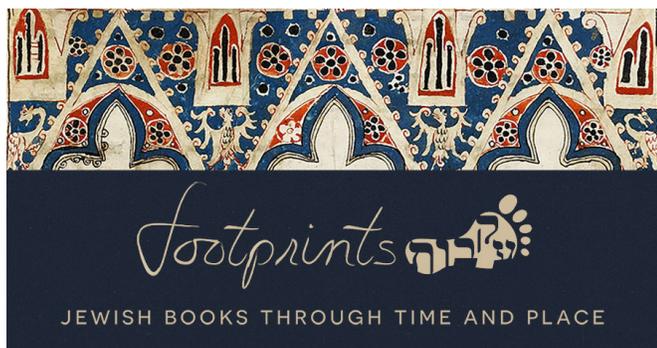
Eureka

Peter M. Susser, *Senior Lecturer in Music*

CTL design, development, and media staff worked with Peter Susser to create a unique online music-improvisation guidebook, entitled Eureka. The open-

source resource is filled with descriptions and video demonstrations of improvisational techniques and teaching examples for use in the classroom by adjunct faculty. Professor Susser debuted the guidebook for his department in Fall 2020. Fun fact: Eureka received its striking landing page imagery from a facsimile edition of Bach's Cello Suites.

URL: eureka.ctl.columbia.edu



Footprints DICTA Grant

Marjorie Lehman, Associate Professor of Talmud and Rabbinics at JTS; **Michelle Chesner**, Columbia University Librarian for Jewish Studies

CTL staff collaborated with DICTA: The Israel Center for Text Analysis, a non-profit organization in Jerusalem whose mission is the development of cutting-edge text processing algorithms in the service of Jewish studies research. Through a grant from the Rothschild Foundation Europe, the teams collaborated to improve the Footprints application search functionality and, in the process, enhance Dicta's own algorithms for language processing.

URL: footprints.ctl.columbia.edu

Footprints Pathmapper

Marjorie Lehman, Associate Professor of Talmud and Rabbinics at JTS; **Michelle Chesner**, Columbia University Librarian for Jewish Studies

CTL staff made the Footprints Pathmapper tool available for scholars and researchers to more deeply explore the historical journey of the Jewish book. The tool allows users to identify book copies through an advanced search interface. The resulting data sets are then displayed on a geographical map, on a time-based heatmap, and in tabular form. Pathmapper allows users to visualize book copy dissemination patterns in hopes of revealing compelling narratives of knowledge, faith, and culture in the global Jewish diaspora.

URL: footprints.ctl.columbia.edu

Learning Design Accessibility Toolkit

CTL staff developed the Learning Design Accessibility Toolkit, a set of accessibility resources with guidance on best practices for written and video content. The kit includes information on creating accessible PDFs via Microsoft Word documents, a checklist on video accessibility, and a guide to best practices with captions and transcripts.

Locus Tempus

Locus Tempus, an open-source digital mapping tool developed by CTL staff, was launched for faculty and students in Spring 2021. The application is designed to facilitate map-based learning activities across disciplines, by engaging students as repository builders, researchers and curators. The application was piloted in the Summer A course "The Writers of Prague" taught by Christopher Harwood, Lecturer in Czech. Locus Tempus integrates with CourseWorks, allowing faculty to easily set up assignments from their courses.

Read more about this project on page 69.

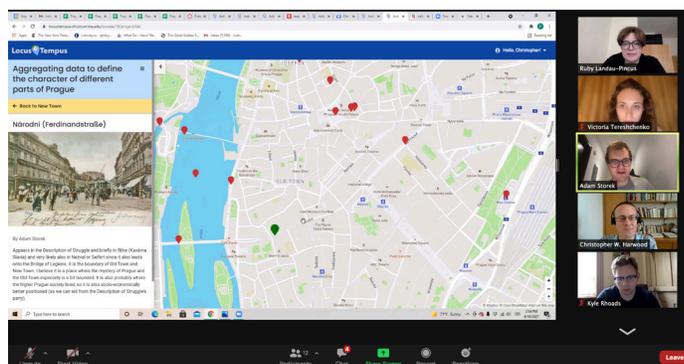
URL: locustempus.ctl.columbia.edu

Reimagining the Humanities Lecture in a Transnational, Post-Pandemic World

Denise Cruz, Associate Professor, English and Comparative Literature

Professor Denise Cruz transformed the online lectures in her Asian American Literature course to maximize student engagement. She worked with the CTL to produce DIY videos and develop strategies to make her large online lecture course more student-centered and dynamic.

Read more about this project on page 26.



Christopher Harwood, Senior Lecturer in Czech, utilizes Locus Tempus, the digital mapping platform, with his students.



Faculty Spotlight

Christopher Harwood, Senior Lecturer in Czech

In the Summer A term in 2021, Christopher Harwood integrated the CTL-developed application Locus Tempus into the instruction of his course, “The Writers of Prague.” Below, we asked Professor Harwood about his experience

What were the main challenges of your course? What motivated you to integrate this new technology?

In June 2020, I volunteered to teach my Writers of Prague comparative literature course during the Summer A session in 2021, instead of the Spring 2021 semester for which it was originally scheduled. Shifting the course content from the usual 13- or 14-week semester to the intensive six-week summer course format raised many challenges. I wanted to have some activities for each 3-hour-and-10-minute class session with which I could break up the main routines of lecture on historical context and author biography and discussion of literary texts. At the same time, I was eager to find new ways to help students get to know the city of Prague more thoroughly: its geographic layout, its different neighborhoods, its major landmarks, the historical events that have shaped it, and the specific ways it has been imagined and mythologized in texts by such diverse authors as Guillaume Apollinaire, Rainer Maria Rilke, Gustav Meyrink, Franz Kafka, Jaroslav Hašek, Vítězslav Nezval, and Marina Tsvetaeva. Locus Tempus proved to be a valuable tool for achieving both of these goals.

How was the student experience enhanced?

In several class sessions, students spent 45 to 90

minutes with Locus Tempus mapping locations in Prague referenced in one or more literary texts. For each location they mapped, students attached an image, identified the context within the literary work where it is mentioned or alluded to, and in some exercises commented on the mythic, symbolic or emotional associations connected with it. Each student worked individually mapping a set of points, and when they were finished, we reviewed their responses together as a class. This proved to be a good way for students to get to know places in Prague, both by doing their own research and by observing their classmates’ work.

What evidence from your activities showed the effectiveness of this new integration?

There is no doubt that students who used Locus Tempus with me this summer developed a much more specific and accurate sense of Prague geography than had students in previous iterations of the course. They became very aware of the ways characters in literary texts move through different spaces in Prague, and of the associations and connotations that specific locations have in different authors’ works. While my course redesign for the intensive format of the Summer A term forced me to drop several texts from the syllabus that I teach in the full-semester format, students this summer demonstrated unusually intensive personal engagement with course material in their written assignments and contributions to class discussion.

Do you have any advice for other faculty who are considering utilizing a new teaching technology such as Locus Tempus?

Expect that it will be a big challenge for you as an instructor to make a major change in your teaching modality or to make extensive use of new teaching technology. It will almost certainly put you out of your comfort zone for a while, but it is precisely under such circumstances, when you are off balance, that you can make some breakthroughs to new and more effective ways of teaching, and convince yourself to jettison techniques or habits that may not be as effective as you had thought they were. Having weekly check-ins with CTL staff to review my plans and experiences with Locus Tempus was a great way both to refine my own teaching goals and strategies and to develop more confidence in my ability to apply Locus Tempus.

For the full spotlight:

ctl.columbia.edu/spotlight/christopher-harwood/

The Columbia Corpus of Spanish Conversations

Guadalupe Fajardo Ruiz, *Senior Lecturer in Spanish*

Professor Ruiz Fajardo's Introductory Spanish II course contains a unique collection of short video recordings of natural conversations among Spanish speakers in different settings around the globe. The CTL provided the instructor and TAs with media production guidance and pedagogy support to implement transcription and linguistic activities to teach interactional and transactional competence.

Updated Projects

Case Consortium @ Columbia University

Originally developed in partnership with the School of Journalism, Case Consortium @ Columbia is a collection of over 80 curated case studies. This year, CTL staff converted more than one hundred videos, and updated the audio files, re-encoding them to a standard format, given the demise of Flash-based media. The case studies currently span many disciplines, including journalism, public health, and sustainable development, and are a heavily used public resource.

URL: casestudies.ctl.columbia.edu



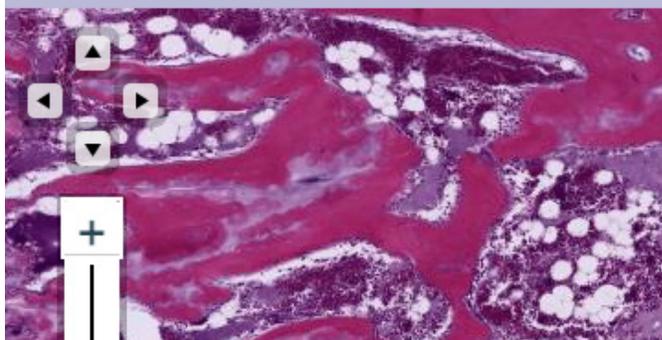
EconPractice

Thomas Groll, *Discipline of International and Public Affairs, SIPA*

In 2018, CTL staff worked with Thomas Groll to develop EconPractice, an online environment for authoring and interacting with economics concepts, as part of his Innovative Course Design project "Adaptive e-Learning in Economics". This year, CTL staff worked to enhance existing graph types and add new, more complex graphs. The CTL also expanded this project beyond the Columbia community, launching a pilot program with 80 students at New York University.

URL: econpractice.ctl.columbia.edu

Rib and cartilage. Human or guinea pig. H&E



Virtual microscopic view of a rib and cartilage using the Histology Lab Manual.

Histology and Pathology Lab Manuals

Patric Spitalnik, *Professor of Pathology and Cell Biology, CUIMC*

Originally developed in 2007, these two popular virtual microscopy sites received a refresh in Spring 2021. The core lab slide viewer was reimplemented in a more sustainable technology, improving accessibility and responsiveness and ensuring the sites will remain viable for years to come. The lab manuals are heavily used by first-year medical and dental programs, grounding students in the structural and functional relationships of cells, tissues, and organs.

URL: histologylab.ctl.columbia.edu, pathologylab.ctl.columbia.edu

Retablo de la Independencia



(4 of 31) [La ilustración y la revolución](#)

A student uses Mediathread to analyze a portion of an image in the Hispanic Cultures II: Ideas, Imágenes, Discursos course

Mediathread

The CTL celebrated the 10th anniversary of its unique web-based media annotation tool in 2020 with a major release. Mediathread is embedded in dozens of Columbia courses

each semester to allow for collaborative exploration, annotation, and analysis of multimedia content including video, audio, and images. CTL staff modernized and streamlined the user interface to provide a more accessible and intuitive experience for faculty and students. In addition, staff completed core infrastructure improvements and added a new discussion-based assignment type. The Mediathread platform was used in X69 courses this year, with students creating 7,821 media annotations.

URL: mediathread.ctl.columbia.edu

MASSIVE OPEN ONLINE COURSES (MOOCs)

The CTL provides comprehensive production and media support for the design, creation, and delivery of MOOCs using two partner organizations: edX and Coursera.

Crisis Resource Management

Vivek K. Moitra, *Allen I. Hyman, M.D. Professor of Critical Care Anesthesiology at CUIMC*

David O. Kessler, *Associate Professor of Pediatrics in Emergency Medicine at CUIMC*

Jessica Spellman, *Associate Professor of Anesthesiology at CUIMC*

Released: Oct 7, 2020

This course aims to provide the critical skills to effectively make decisions and manage teams in a crisis situation, especially teams of strangers—a common occurrence for many health workers dealing with the COVID-19 pandemic.

Indigenous Peoples' Rights

Elsa Stamatopoulou, *Director, Indigenous Peoples' Rights Program, Institute for the Study of Human Rights*

Released: Oct 21, 2020

This course examines how Indigenous Peoples have been contesting norms, institutions, and global debates in the past 50 years, how they have been re-shaping and gradually decolonizing these systems at international and national levels, and how these complex and historic circumstances and political actions produced a global Indigenous identity.

Learning Success

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

Sara Remedios, *Associate Dean of Students and Director of Academic and Learning Initiatives, School of General Studies*

Josh Edwin, *Associate Dean of Students, School of General Studies*

Released: Oct 14, 2020

This course, an abridged version of an earlier course, provides students everywhere with learning strategies to be successful in higher education courses, covering foundational study skills, strategies for more effective reading, writing, test preparation and time management, and proven tips for students taking STEM and other technical courses. It also covers metacognition—the awareness and understanding of one's own thought processes—in relation to learning, as well as growth versus fixed mindsets, to provide students with a better understanding of how they learn.

New Editions and Re-releases in 2020-2021

Civil War and Reconstruction XSeries

Eric Foner, *Dewitt Clinton Professor Emeritus of History*

- Civil War and Reconstruction 1 (1850-1961)
Relaunched: July 1, 2020
- Civil War and Reconstruction 2 (1861-1865)
Relaunched: July 22, 2020
- Civil War and Reconstruction 3 (1865-1890) *Relaunched: December 2, 2020*

This series is broken into three MOOCs covering material spanning from 1850 to 1890. The series examines the causes of the war, the road to secession, the conduct of the Civil War, the coming of emancipation, and the struggle after the war to breathe meaning into the promise of freedom for four million emancipated slaves. One theme throughout the series is what might be called the politics of history: how the world in which a historian lives affects his or her view of the past, and how historical interpretations reinforce or challenge the social order of the present.

MOOCs Active in 2020-2021

Attaining Higher Education

Beth E. Morgan, *Director of Higher Education Transition and Partnerships, Center for Veteran Transition and Integration, School of General Studies*

Released: April 3, 2019

Corporate Finance Series

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

Fourth and fifth editions released: August 7, 2019 and January 15, 2020

Three course series:

- Introduction to Corporate Finance
- The Free Cash Flow Method for Firm Valuation
- Risk and Return and the Weighted Average Cost of Capital

Inclusive Teaching: Supporting All Students in the College Classroom

Amanda Irvin et al., Director of Faculty Programs & Services, Columbia CTL

Released: June 29, 2019.

Indian & Tibetan River of Buddhism

Robert A.F. Thurman, Jey Tsong Khapa Professor of Indo-Tibetan Studies, Department of Religion

Released: May 15, 2019

Protection of Children in Humanitarian Settings

Hanna-Tina Fischer, Associate, Program on Forced Migration and Health, Mailman School of Public Health

Mark Canavera, Associate Director, Care and Protection of Children (CPC) Learning Network, Mailman School of Public Health

Mike Wessells, Professor, Program on Forced Migration and Health, Mailman School of Public Health

Released: July 13, 2019

University Studies for Student Veterans

R.J. Jenkins, Curriculum Design Specialist, Center for Veteran Transition and Integration

Sara Remedios, Associate Dean of Students and Director of Academic and Learning Initiatives, School of General Studies

Josh Edwin, Associate Dean of Students, School of General Studies

Released: 2017

Women Have Always Worked - XSeries

Alice Kessler-Harris, R. Gordon Hoxie Professor of American History, Department of History

New edition released: January 30, 2019

Four course series:

- Seeking Women's Rights: Colonial Period to the Civil War
- Wage Work for Women Citizens: 1870-1920
- Negotiating a Changing World: 1920-1950
- Fighting for Equality: 1950-2018

MEDIA PRODUCTIONS

The media team produces impactful videos for online courses, resources for instructors, and promotional materials that leverage digital pedagogy and expand the CTL's visibility. The media team has established their



CTL Media Producer **Alexis Aurigemma** manages media support for a faculty workshop facilitated by Assistant Director **Rebecca Petitti**.

expertise as producers and practitioners in the field of classroom and online teaching and learning. Their work focuses on leveraging video and exploring new technologies to produce course content that maximizes learning and follows best practices for digital accessibility.

Media Projects in 2020-2021

Dead Ideas in Teaching and Learning Podcast Series

The Dead Ideas In Teaching and Learning podcast series launched in October 2020, growing its listenership to 8,337 downloads by the end of May 2021. The podcast's host, CTL Executive Director Catherine Ross, works closely with the media team to produce the series. Each episode provides opportunities for listeners to confront dead ideas while reflecting on their teaching and learning practices.

Read more about this project on page 13.

Voices of Hybrid and Online Teaching and Learning

The Instructional Technology group worked closely with the CTL Faculty Services and Programs group to develop a process for instructors and students to share their online and hybrid teaching and learning experiences. The media team processed the audio and video files for the bi-weekly posts on the CTL website. The audio recordings and videos are all now available on the ColumbiaLearn YouTube channel.

Read more about this project on page 18.

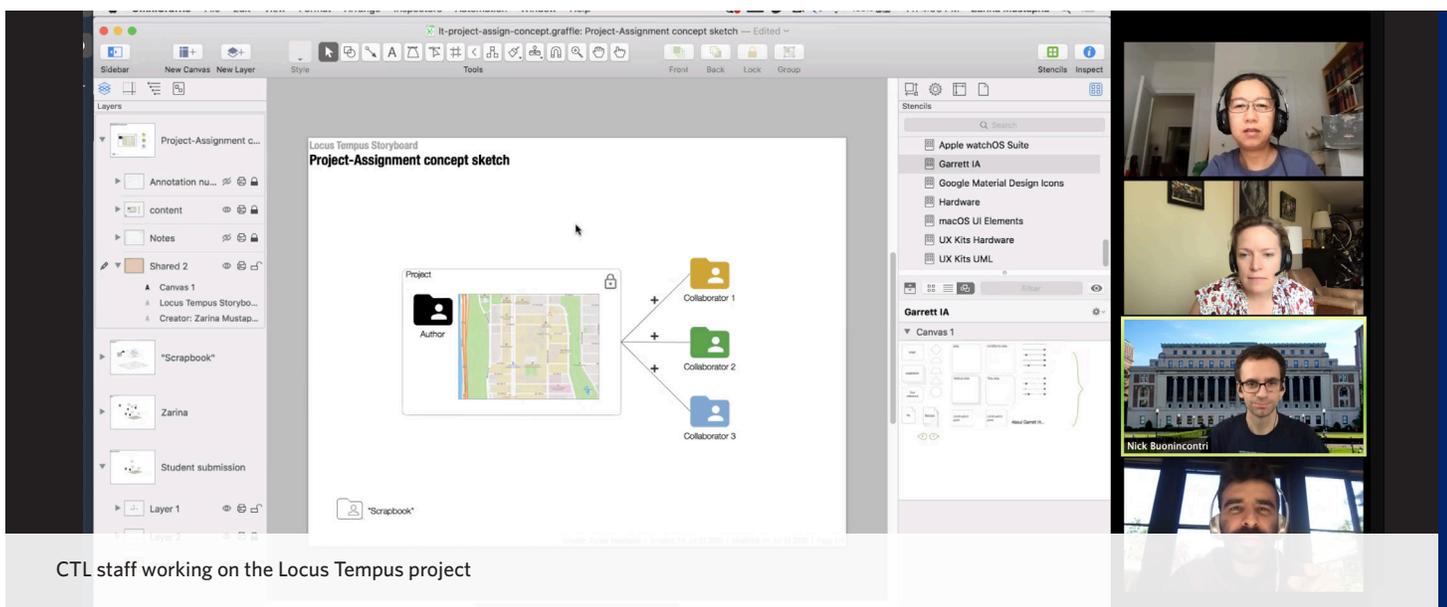
The Celebration of Teaching and Learning Symposium

The media team hosted and produced this year's Celebration of Teaching and Learning Symposium as a live webinar over three days. The team produced videos for the panelists and moderators that were played live during the webinar.

Read more about this project on page 10.

Additional Videos Produced

- Provost's Conversations on Online Learning
- Provost Grant Funded Projects (formerly an in-person town hall)
- Provost Grant Funded Projects: The Assessment and Evaluation Plan
- Mediathread: A Media Annotation Tool for Education promotional trailer
- Footprints promotional trailer
- Indigenous Peoples' Rights MOOC trailer
- Crisis Resource Management MOOC trailer
- CTL online video resource support:
 - Course Design Essentials
 - Teaching with Courseworks
 - Learning Through Synchronous and Asynchronous Discussion
 - Collaborative Learning Online Resources in Google Suite
 - Tools for Assessment in Courseworks



CTL staff working on the Locus Tempus project

Technology Platforms and Support

The Instructional Technologies group successfully completed its 2021 IT Risk Management (ITRM) survey and review with the Columbia University Information Technology (CUIT) security team. After the review, the CTL Instructional Technologies group led staff training aimed at raising awareness of new ITRM survey considerations including insider threat and ransomware.

As engagement with the Columbia community moved entirely online, the Instructional Technologies group worked to incorporate digital submissions for the Thank-a-Prof/Thank-a-TA initiative into CourseWorks. Enhancements were made to automate letter creation, polish the design and ensure accessibility standards were met.

The group reflects and writes about its work in service to teaching and learning via the Compiled blog, producing 10 articles over the past year.

URL: compiled.ctl.columbia.edu

Internal and External Engagement —

Publications

- Ross, C., Irvin, A., and Kachani, S. (2021, June 16). Dead Ideas: Reflections for Post-Pandemic Learning. Inside Higher Ed. <https://www.insidehighered.com/advice/2021/06/16/pandemic-has-called-question-host-generally-accepted-teaching-practices-opinion>
- Irvin, A., Ross, C., and Kachani, S. (2021, May 24). What College Students Wish Professors Knew About Inclusive Online Teaching. EdSurge. <https://www.edsurge.com/news/2021-05-24-what-college-students-wish-professors-knew-about-inclusive-online-teaching>
- Irvin, A. (2021, January). Self-Disclosure in the Classroom. Columbia University LGBTQ+ Guide, Office of the Provost. <https://provost.columbia.edu/sites/default/files/content/Faculty%20Advancement/LGBTQ%20Resources/Columbia%20University%20LGBTQ%2B%20Resource%20Guide%20-%202021-01-06.pdf>
- McCreesh-Tosell, S., Torline, J., Gouse, H., Robbins, R., Mellins, C., Remien, R., Rowe, J., Peton, N., Rabie, S., Joska, J. (2021). Staff Perceptions of Preimplementation Barriers and Facilitators to a Mobile Health Antiretroviral Therapy Adherence Counseling Intervention in South Africa: Qualitative Study. JMIR Mhealth Uhealth. <https://mhealth.jmir.org/2021/4/e23280/PDF>

Conference Presentations and Invited Workshops

- Althouse, I. (2021, April). Essentials of teaching and learning: Encounter, engage, reflect. Invited workshop series for the Masters in Design Studies capstone course at CENTRO, Mexico City, Mexico. Online.
- Althouse, I. (2020, September). Language and Literature Pedagogy Discussion. Pontificia Universidad Católica del Perú, Lima, Peru. Online.
- Chen, C.V.H.-H., Phillipson, M., Wright, M. (2020, November). Assessment Fellowships: Empowering Graduate Students, Serving Faculty, Expanding Center Capacity. Featured synchronous presentation, 2020

POD Network Conference, Online.

- Chen, C.V.H.-H., Banta, S. (2021, May). Building Community in an Online, Synchronous Introductory Engineering Course. 2021 Pandemic Pedagogy Research Symposium, Online.
- Irvin, A. and Klaf, S. (2021, June). Inclusive Teaching for All Courses for Air University faculty. Certificate of Advanced Digital Education and Engaged Learning Seminar, SPS Center for Technology Management.
- Irvin, A. and Ross, C. (2021, May). Inclusive Teaching Discussion, College of Idaho, Online.
- Irvin, A. (2021, June). Making Teaching More Inclusive and Equitable. Times Higher Education podcast, Online.
- Matiz, M. (2021, April). The First Massive Open Online Course on Indigenous Peoples' Rights panel discussion. United Nations Permanent Forum on Indigenous Issues.
- Nelson, C. N., DeClercq, C., Tynes, B. A., & Walker, D. T. (2021, June). Staff-Student Collaboration: Engaging Anti-Racism and Anti-Oppression Frames in Pedagogy and Teaching Practice. 2021 Graduate Careers Consortium Conference, Online.
- Petitti, R. (2021, June). Meaningful Course Design to Increase Student Engagement with Course Readings. The Teaching Professor Virtual Conference, Online.

Representation at Conferences and Events

- CIRTL Fall 2020 Virtual In-Person Meeting, Online, November 14-15, 2020.
- CIRTL Spring 2021 Virtual In-Person Meeting, Online, March 4-5, 2021.
- Ivy+ Directors Meeting, Online, December 8, 2020.
- OLC Innovate 2020, Online, June 15-26, 2020.
- Graduate Careers Consortium Conference, Online, June 23-25, 2021.
- Pandemic Pedagogy Research Symposium, Online, May 5, 2021.
- POD Network 2020 Annual Conference, Online,

November 11-13, 2020.

- The Teaching Professor Virtual Conference, Online, June 2021.
- Reaching and Teaching Every Learner Everywhere Workshop, Online, February 10, 2021.

Columbia University Committee Work

- Chen, C.V.H.-H., Irvin, A., Phillipson, M., Ross, C. School of General Studies Advisory Board for Arthur Vining Davis Grant Submission.
- Dreher, S. and Matiz, M. Information Technology Leadership Council.
- Foo, J.C. Academic Integrity Working Group.
- Foo, J.C. School of Engineering and Applied Science Committee on Instruction.
- Guzman, J. College of Dental Medicine Committee on Instruction.
- Hall, M., Co-Chair, CUIMC Education Resource Committee (ERC).
- Hall, M., Kingon, A., Matiz, M., and Rowe, J., Ogden, S. Academic Technology Leadership Group.
- Hall, M., and Kingon, A. COVID-19 Dean of Students Bi-Weekly Planning Committee.
- Hall, M., and Kingon, A. VP&S Care Curriculum Committee.
- Hall, M., and Kingon, A. VP&S Educate Committee.
- Hall, M., and Kingon, A. VP&S Educate Curriculum Committee.
- Irvin, A. and Ross, C. 2020/2021 Academic Planning Committee (Nexus).
- Kingon, A. Fundamentals Curriculum Revision Committee.
- Kingon, A. Education Technology Advisory Committee (ETAC).
- Kingon, A. VP&S Fundamentals Curriculum Subcommittee Meeting.
- Klaf, S. Directors of Undergraduate Studies Meeting, Arts & Sciences.
- Matiz, M. Libraries Recovery Planning Group. Affiliate Leadership Subgroup.
- Matiz, M. Provost's Faculty Committee on Educational Innovation (CEI).

- Petitti, R. Task Force on Inclusion and Belonging.
- Petitti, R. Anti-Bias Training Working Group.
- Ross, C. EPPC Committee. Diversity in the Classroom Subcommittee. Course Evaluation Subcommittee.
- Ross, C. Policy and Procedures Committees of Arts & Sciences. Subcommittee on Teaching Modalities.
- Ross, C. Senate Education Committee. Co-Chair, Evaluation of Teaching Subcommittee.

External Committees and Boards

- Chen, C.V.H.-H. CIRTLL Leadership Team.
- Chen, C.V.H.-H. CIRTLL Fall 2020 Virtual In-Person Meeting Planning Committee, Chair.
- Chen, C.V.H.-H. CIRTLL Spring 2021 Virtual In-Person Meeting Planning Committee.
- Chen, C.V.H.-H. Evaluation and Program Planning. Reviewer.
- Hentrich, N. Critical Media Pedagogy Special Interest Group. Society for Cinema and Media Studies. Co-Chair.
- Irvin, A. The Scholarly Teacher Editorial Board.
- Irvin, A and Ross, C. Hudson College Center for Teaching, Learning, and Innovation Advisory Board.
- Irvin, A., Foo, J.C., and Althouse, I. City University (Hong Kong) Teaching Development Grant External Review Committee.
- Irvin, A. and Ross, C. Teaching and Learning Global Leadership Group.

Appendix A:

CTL Leadership and Staff

Leadership Council

Soulaymane Kachani , Chair, Vice Provost for Teaching, Learning, and Innovation	Catherine Ross , Executive Director, Center for Teaching and Learning
A. Maurice Matiz , Senior Director, Instructional Technologies	Amanda Irvin , Senior Director, Faculty Programs and Services
Michelle V. Hall , Director, CUIMC Programs and Services	Mark L. Phillipson , Director, Graduate Student Programs and Services

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

Communications and Outreach

Laura Nicholas , Manager

Faculty Programs and Services

Amanda Irvin , Senior Director	Suzanna Klaf , Associate Director
Jessica Rowe , Associate Director, Instructional Design	John C. Foo , Assistant Director, Science and Engineering
Jamie Kim , Assistant Director	Rebecca Petitti , Assistant Director
Paul Joseph Stengel , Senior Learning Designer	Aurora Collado , Learning Designer
Andrew Corpuz , Learning Designer	Nicole Hentrich , Learning Designer
Sam Sadeh , Learning Designer	Mike Tarnow , Learning Designer, Science and Engineering

CUIMC Programs and Services

Michelle V. Hall , Director	Ashley Kingon , Associate Director
Nigel Frazier , Learning Designer	Jason Guzman , Learning Designer

Graduate Student Programs and Services

Mark L. Phillipson , Director	Ian Althouse , Senior Assistant Director
Christopher Chen , Senior Assistant Director	Caitlin DeClercq , Assistant Director

Instructional Technologies

A. Maurice Matiz , Senior Director	Susan Dreher , Associate Director
Stephanie Ogden , Associate Director	Vincent Aliberto , Senior Media Producer
Devon Anirudh , Senior Technical Specialist	Alexis Aurigemma , Media Producer

Nick Buonincontri , Programmer	Michael R. Deleon , Senior Media Producer
Natalia Dittren , Associate Programmer	Jon Hanford , Video Technical Specialist
Meesha Meksin , Project Manager	Zarina Mustapha , Senior Front-end Developer
Nik Nyby , Senior Programmer	Marc A. Raymond , Senior Designer
Abie Sidell , Media Producer	

Administration

Sarah Carswell , Executive Assistant	Sayaka Tsuda , Programs Coordinator
---------------------------------------------	--------------------------------------------

Appendix B:

CTL Advisory Board

<p>Soulaymane Kachani, <i>Co-Chair</i> Vice Provost for Teaching, Learning, and Innovation; Senior Vice Dean and Professor, Fu Foundation School of Engineering and Applied Science</p>	<p>Catherine Ross, <i>Co-Chair</i> Executive Director of the Center for Teaching and Learning</p>
<p>Carlos Alonso Dean, Graduate School of Arts and Sciences; Morris A. & Alma Schapiro Professor in The Humanities, Vice President for Graduate Education, Faculty of Arts and Science</p>	<p>Jonathan Amiel Associate Professor of Psychiatry; Senior Associate Dean for Innovation, College of Physicians and Surgeons</p>
<p>Sarah Cole Parr Professor of English and Comparative Literature; Dean of Humanities, Faculty of Arts and Sciences</p>	<p>Pat Grieve Nancy and Jeffrey Marcus Professor of the Humanities, Department of Latin American and Iberian Cultures, Faculty of Arts and Sciences</p>
<p>Fredrick Harris Professor of Political Science; Dean of Social Sciences, Faculty of Arts and Sciences</p>	<p>Julia Hirschberg Percy K. and Vida L. W. Hudson Professor of Computer Science</p>
<p>Lisa Hollibaugh Dean of Academic Affairs, Columbia College</p>	<p>Kris Kavanaugh Associate Vice President, Columbia Libraries</p>
<p>Julie Kornfeld Vice Provost for Academic Programs; Associate Professor of Epidemiology, Columbia University Medical Center</p>	<p>Ellen Meier Professor of Practice, Teachers College; Director of the Center for Technology and School Change</p>
<p>Janet Metcalfe Professor of Psychology; Director of Graduate Studies, Department of Psychology, Faculty of Arts and Sciences</p>	<p>Dennis Mitchell Executive Vice President for University Life; Senior Vice Provost for Faculty Advancement; Professor of Dental Medicine (Community Health and Periodontics) at the Columbia University Medical Center</p>
<p>Barclay Morrison Professor of Biomedical Engineering; Vice Dean of Undergraduate Programs, Fu Foundation School of Engineering and Applied Science</p>	<p>Letty Moss-Salentijn Edward V. Zegarelli Professor of Dental Medicine (in Anatomy and Cell Biology); Vice Dean for Curricular Innovation and Interprofessional Education in the College of Dental Medicine</p>

<p>Diana Rose Newby Graduate student, Department of English and Comparative Literature</p>	<p>Justin Pearlman Vice Provost for Communications and Engagement, Office of the Provost</p>
<p>Brent Stockwell Professor of Biological Sciences and Chemistry, Department of Biological Sciences, Faculty of Arts and Sciences</p>	<p>Ann Thornton Vice Provost and University Librarian, Columbia University Libraries</p>
<p>Greg Wawro Professor of Political Science; Chair, Department of Political Science, School of Arts and Sciences</p>	

Appendix C:

Data Summary of AY 2020-2021 Programs and Services

1 a. Unique Individuals Served by the CTL

By University Status/Affiliation

Graduate students	1,359
Faculty	1,952
Administrators and university staff	460
Postdocs	52
Research scientists	36
Undergraduate students	20
Total	3,879

By School

Arts and Sciences	1,568
Barnard College	150
College of Dental Medicine	43
Vagelos College of Physicians and Surgeons	253
Columbia Business School	68
Columbia Law School	158
Fu Foundation School of Engineering and Applied Science	403
Graduate School of Journalism	44
Jewish Theological Seminary	46
Mailman School of Public Health	242
School of Architecture, Planning and Preservation	37
School of International and Public Affairs	297
School of Nursing	132
School of Social Work	126
Teachers College	78
Other academic units	121
Other non-academic units	113
Total Columbia-affiliated individuals	3,879
Total external visitors	85
Total unique individuals served	3,964

1 b. CTL Interactions with Clients

By University Status/Affiliation

Faculty	6,565
Graduate students	5,546
Administrators and university staff	1,334
Postdocs	127
Research scientists	89
Undergraduate students	110
Total	13,771

By School

Arts and Sciences	6,867
Barnard College	393
College of Dental Medicine	149
Vagelos College of Physicians and Surgeons	986
Columbia Business School	206
Columbia Law School	322
Fu Foundation School of Engineering and Applied Science	1,174
Graduate School of Journalism	126
Jewish Theological Seminary	123
Mailman School of Public Health	648
School of Architecture, Planning and Preservation	115
School of International and Public Affairs	799
School of Nursing	824
School of Social Work	319
Teachers College	199
Other academic units	254
Other non-academic units	267
Total Columbia-affiliated interactions	13,771
Total external visitor interactions	100
Total interactions	13,871

2. Programs and Events

Client Interactions By Program Type

Workshops	3,595
University-wide events	195
Self-paced courses	2,672
Institutes	69
Outreach events	257
Total program and event interactions	3,193

3. Services

Client Interactions By Program Type

Consultations	3,748
Project consultations	1,228
Course consultations	392
General CTL consultations	172
School/Department/Program consultations	240
Professional development consultations	265
CTL Fellows Support consultations	337
Technology support	2,563
Assessment and evaluation services	211
Total service interactions	5,408

Center for Teaching and Learning

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