



## Message from the Interim Director

#### Dear Colleagues:

As I pause to reflect on the past year in the Center for Teaching and Learning (CTL), I believe the most fitting word to describe the Center during FY2022 - 2023 would be "transformation." The most significant transformation within CTL was a change in leadership following the retirement of Dr. Joyce Weinsheimer, Center Director since 2016. During Joyce's tenure as the leader of CTL, she worked tirelessly to promote a campus culture that creates meaningful learning for all students, empowers people to engage in effective instruction, and values excellence in teaching.

While Joyce will be missed considerably by all of CTL's personnel and others in the Tech community, we are also tremendously excited to welcome Dr. Laura Carruth as the new Associate Vice Provost for Transformative Teaching and Learning, Executive Director of the Center for Teaching and Learning. Prior to joining CTL, Dr. Carruth served as Senior Director of the Center for Excellence in Teaching, Learning, and Online Education at Georgia State University. She has also been an associate professor in Georgia State's Neuroscience Institute and Department of Biology for the past 14 years.

Even though Dr. Carruth did not officially begin her new position in the Center during the past fiscal year, the search process was conducted and her selection made during that period. After Joyce's departure in the first week of February 2023, Dr. David Lawrence served as Interim Director of the Center until Laura's arrival on August 7, 2023.

A second major change that occurred in CTL during the past fiscal year involved personnel, with five new faculty joining the Center. The new faculty include: (1) Dr. Amanda Nolen, Faculty Teaching and Learning Specialist; (2) Dr. Karen Franklin, Faculty Teaching and Learning Specialist; (3) Dr. Rebecca Watts Hull, Assistant Director, Faculty Development for Sustainability Education Initiatives; (4) Dr. Lauren Barbeau, Assistant Director for Learning and Technology Initiatives; and, (5) Dr. Peter Ariev, Learning and Technology Specialist.



Despite all the aforementioned changes in FY2022 - 2023, the Center for Teaching and Learning had over 10,981 contact points with members of the Georgia Tech community. We hope you will peruse this report and get a glimpse into the events, workshops, awards, consultations, courses, and partnerships provided by CTL to encourage reflective and transformative teaching and learning.

Dr. Laura Carruth

Another significant change in the Center relates to organizational structure and reporting lines. During FY2022-2023, CTL began reporting to Dr. Laurence Jacobs, Senior Vice Provost for Education and Learning (SVP-EL). A primary goal for Dr. Jacobs is to elevate student success, education, and learning through the direct supervision of administrative and support services provided by the offices of Undergraduate Education, Graduate and Postdoctoral Education, and the Center for Teaching and Learning. To reflect this change in leadership and structure, the Director position within CTL was eliminated and a new Associate Vice Provost for Transformative Teaching and Learning, Executive Director of the Center for Teaching and Learning was established.

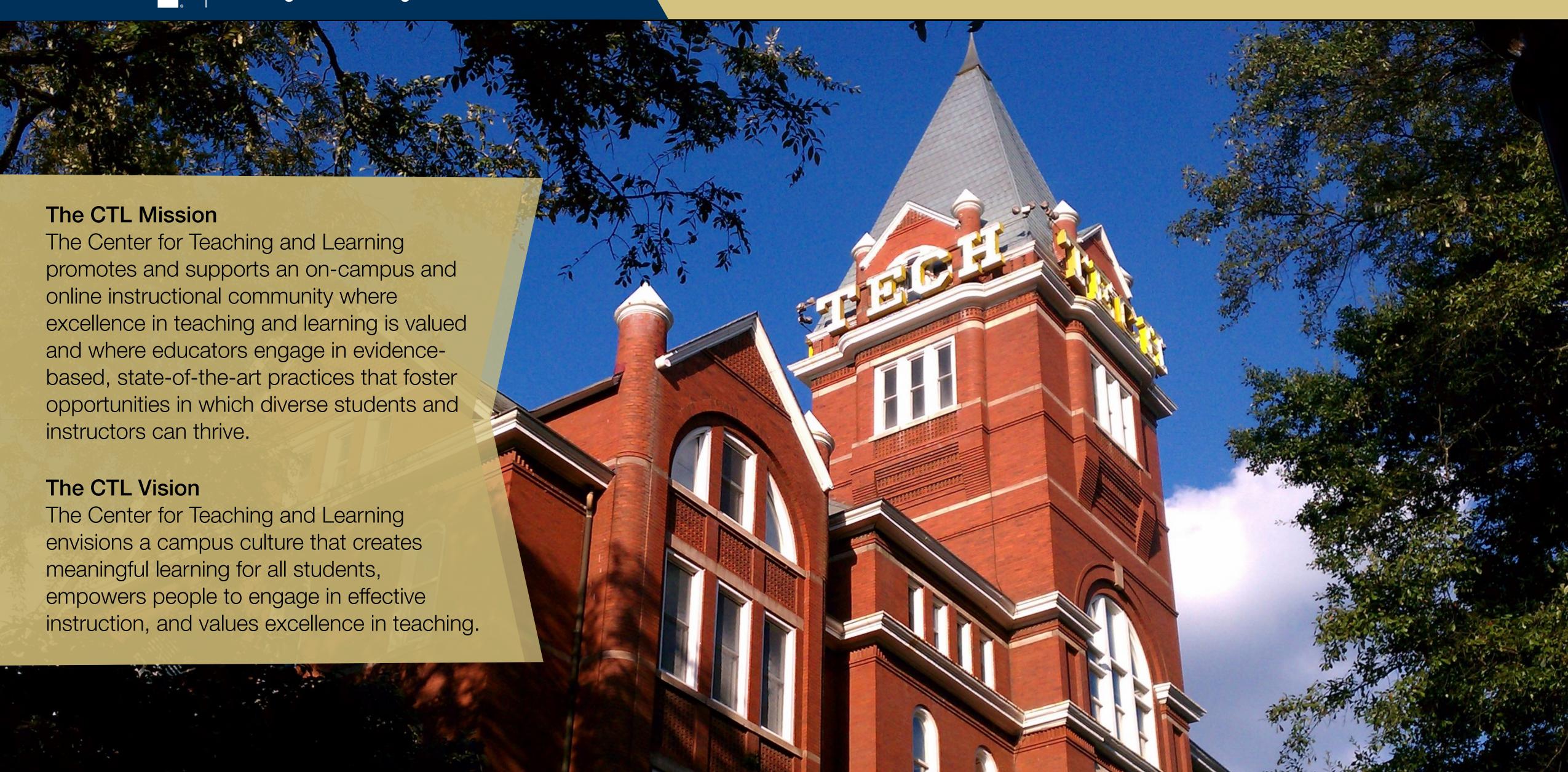
Best wishes,

David Lawrence

**David Lawrence** Interim Director



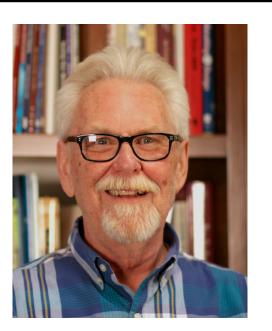
## Mission & Vision Statements



## Faculty and Staff



Joyce Weinsheimer, Ed.D. Director



David Lawrence, Ph.D. Interim Director



Carol Subiño Sullivan, Ph.D. Assistant Director, Faculty Teaching and Learning Initiatives



Amanda Nolan, Ph.D. Faculty Teaching and Learning Specialist



Karen Franklin, Ph.D. Faculty Teaching and Learning Specialist



Rebecca Watts Hull, Ph.D.
Assistant Director, Faculty
Development for
Sustainability Education
Initiatives



Vincent Spezzo, Ed.D. Assistant Director, Teaching and Learning Online



Lauren Barbeau, Ph.D.
Assistant Director,
Learning and Technology
Initiatives



Peter Ariel, Ph.D. Learning and Technology Initiatives Specialist



Kate Williams, Ph.D.
Assistant Director, TA
Development and Future
Faculty Initiatives



Tammy McCoy, Ph.D.
TA Development and
Future Faculty Specialist



Sarah Kegley, M.A. International TA Program Manager



Felicia Turner Academic Program Coordinator II



Anastasia Volokhova Administrative Professional II



Boni Yraguen Graduate Teaching Fellow



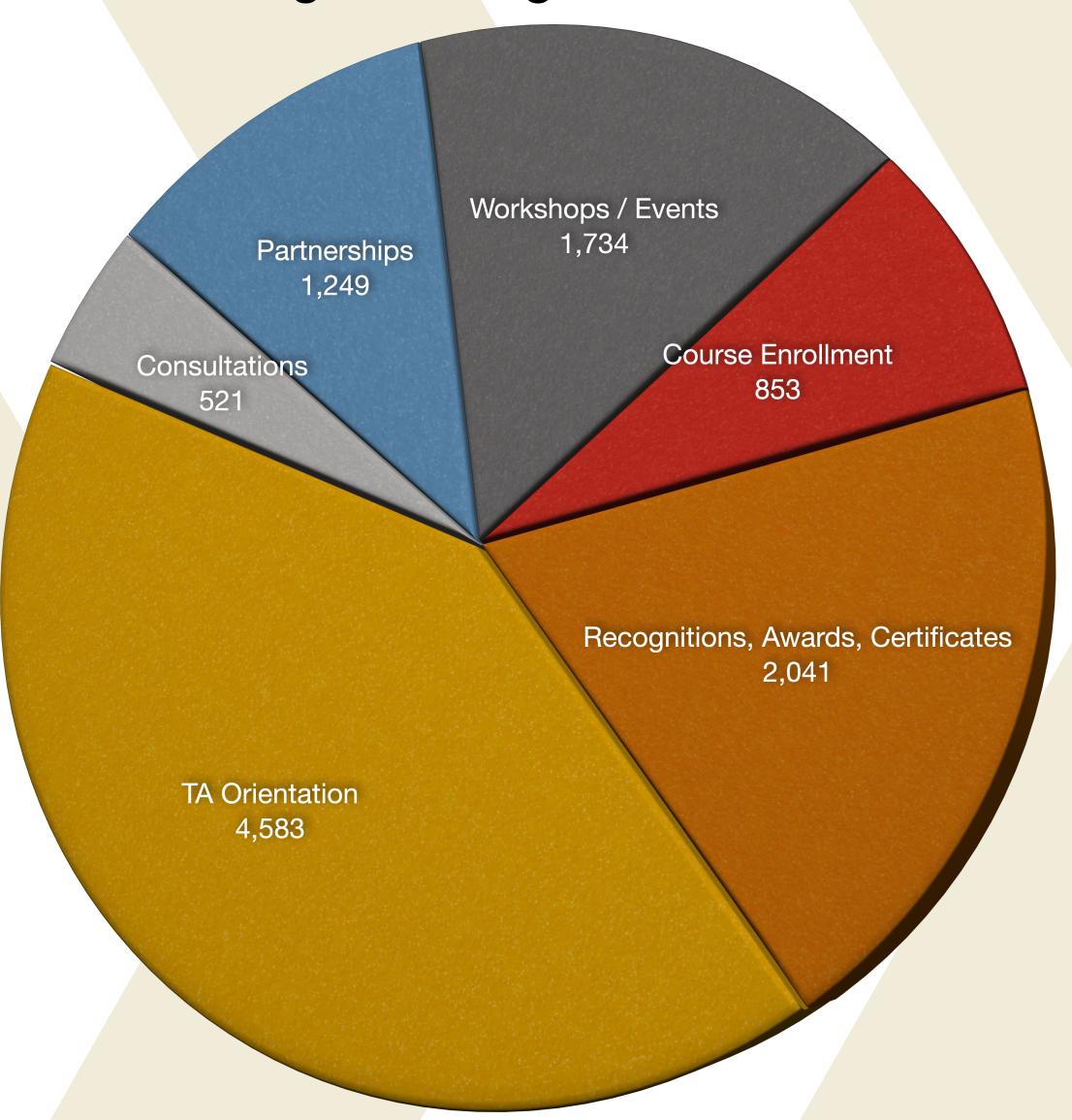
Declan Abernathy
Graduate Teaching Fellow



Chaohua Ou, Ed.D.
Assistant Director of
Special Projects and
Educational Initiatives

## By the Numbers

### CTL Programming and Services



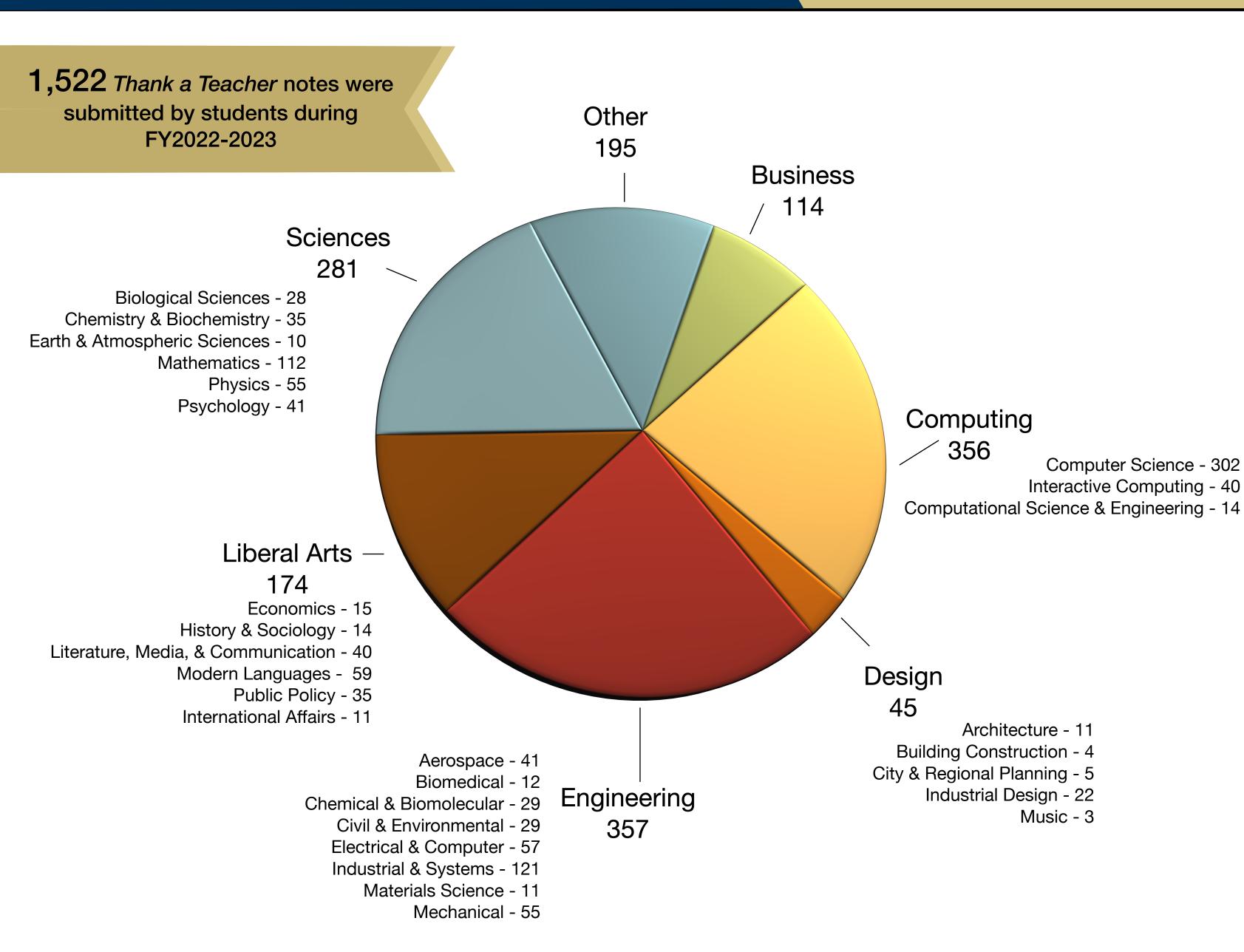
In FY2022 - 2023, the Center for Teaching and Learning had over 10,981 contact points with members of the Georgia Tech community.

- Courses
  - Students enrolled in CTL course offerings
- Recognitions, Awards, and Certificates
  - Thank a Teacher, CTL BP Awards, CIOS Recognitions, TA Awards,
     Tech to Teaching and CIRTL Certificates
- Workshops / Events
  - Celebrating Teaching Day and Teaching and Learning Forum
  - Attendees
- TA Orientation
  - Number of asynchronous training modules completed by graduate and undergraduate TAs and number of TAs completing face-to-face or synchronous training
- Consultations
  - One-on-one consults, class observations, and class dialogues
- Partnerships
  - Service conducted in collaboration with other stakeholders

**NOTE:** The data presented in the pie chart represents contact points, not unique individuals. For example, if a faculty member attends a CTL workshop and receives a Thank a Teacher note, then two contact points would be counted.



## Thank a Teacher Program



The *Thank a Teacher* program recognizes outstanding contributors to the learning environment at Georgia Tech. Any student can submit a *Thank a Teacher* note to a faculty member, TA, or staff member on campus. Recipients are honored each spring semester at the annual Celebrating Teaching Day.





### **Events**

### **Fall Teaching Kickoff**

Each August, the Center for Teaching and Learning hosts a day-long Fall Teaching Kickoff event, which is a series of interactive workshops to help get participants geared up and ready for the first day of class. In 2022, CTL offered three virtual workshops during Fall Teaching Kickoff.

#### Syllabus Clinic for New Instructors

Research shows that the way your syllabus is constructed can affect your students' ability to learn in your class. In addition, making decisions about specific course policies is often a matter of being clear on university-wide rules, then balancing tradeoffs based on your context and style. In this session, participants engaged in a working session to revise a of their syllabus, while receiving guidance and feedback from the Center for Teaching and Learning.

Facilitated by: Dr. Carol Subiño Sullivan, Assistant Director, Faculty Teaching and Learning Initiatives, Center for Teaching and Learning

#### Engaging Students in Meaningful Experiential Learning

In fall 2022, Georgia Tech announced a new Transformative Teaching and Learning Strategy to support faculty in developing experiences with the potential to help Tech students grow as creative, ethical, globally aware leaders who can solve complex, real-world problems. Incentives to help faculty participate (and persist) in offering high impact practices, transformative classroom experiences, and community connections will be part of this initiative.

Participants at this session learned more about this strategic initiative and practices their colleagues were using to create transformative learning experiences for their students. Participants were also invited to consider your own transformative teaching plan and to connect with colleagues with similar interests.

The panel of innovative educators included:

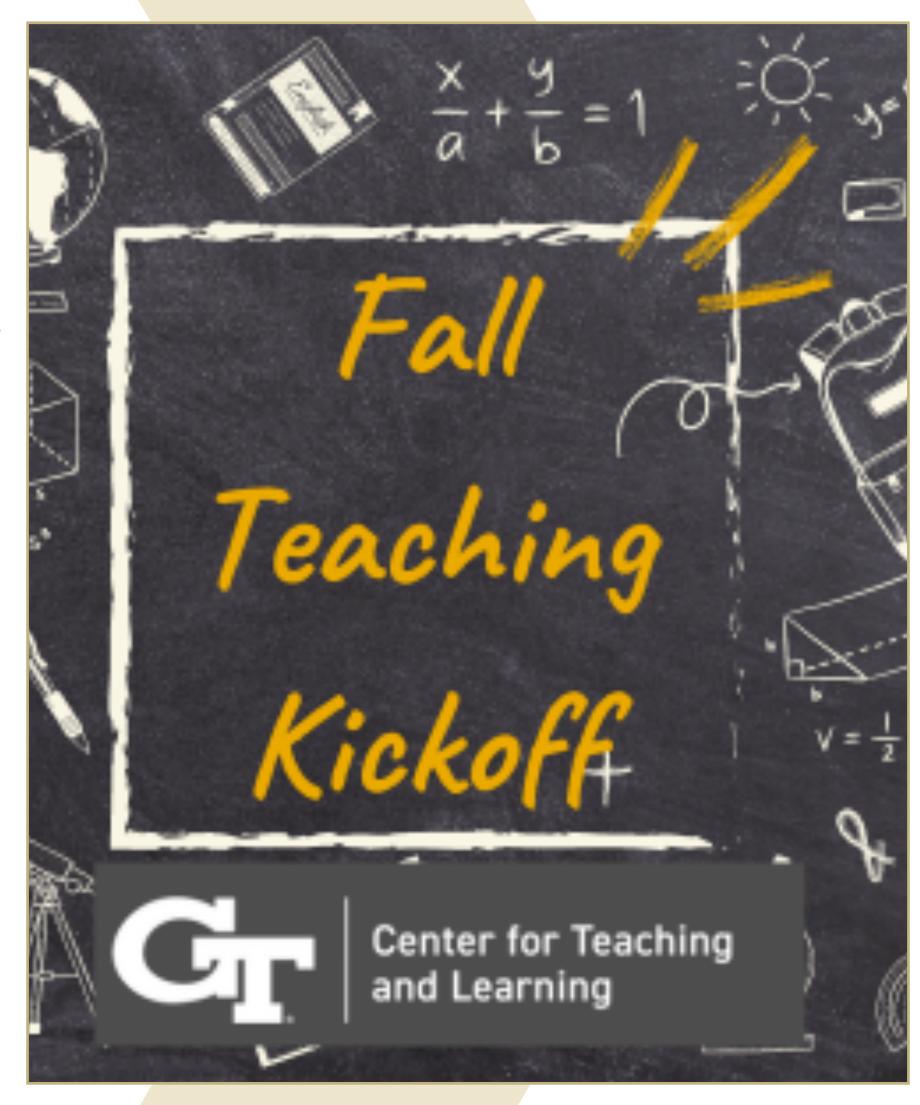
- **Dima Nazzal**, Principal Academic Professional, Industrial and Systems Engineering: Dr. Nazzal engages students in experiential and project-based learning through cornerstone and capstone design courses.
- Amanda Nolen, Professor of Education at the University of Arkansas and new CTL Faculty Teaching and Learning Specialist at Georgia Tech: Dr. Nolan will share examples of how she has assessed the impact of experiential learning on student learning in her courses.
- Teresa Snow, Senior Academic Professional, Biological Sciences: Dr. Snow integrates the UN Sustainable Development Goals into a global "at home" course.
- Linda Wills, Associate Professor, Electrical Engineering: Dr. Wills leverages Gradescope to help her students learn from common errors.

Facilitated by: Joyce Weinsheimer, Director, Center for Teaching and Learning, Carol Subiño Sullivan, Assistant Director, Faculty Teaching and Learning Initiatives, Center for Teaching and Learning, and Laurence J. Jacobs, Senior Vice Provost for Education and Learning

#### Engaging with Canvas: Leveraging Homepages and Modules

Whether you'd like to extend your reach to your students when they are outside the classroom, teach a class that is online, or offer something in between, leveraging Canvas can be a key step to fully engaging your students. In this session, we explored two of the first areas of Canvas your students see: the course Homepage and Modules. We discussed how the Homepage can be an active area for communication and guidance, examined the best practices for utilizing Modules as tools of organization, storytelling, and scaffolding, and then generated ideas for how each of these online components can work together to create a dynamic experience for your students.

Facilitated by: Dr. Vincent Spezzo, Assistant Director of Teaching and Learning Online, Center for Teaching and Learning.





### **Events**

### **Celebrating Teaching Day**

This event, designed to honor teaching excellence at Georgia Tech, took place on March 16. The keynote speaker, Dr. Kevin Gannon, Director of the Center for the Advancement of Faculty Excellence and Professor of History at Queens University of Charlotte engaged Tech faculty with his talk, "Getting Real About 'Rigor'." He drew on research he presents in his book, *Radical Hope: A Teaching Manifesto* (West Virginia University Press, 2020), to highlight that what faculty usually consider as rigor and what students experience in so-called "rigorous" classes are vastly different things. He asked the audience to consider the question: What if, instead of promoting meaningful, challenging learning, we're actually placing barriers in front of our students? His talk also recommended specific strategies to challenge students in ways that promote, rather than prevent, their success.

The event also featured a poster session. Presenters highlighted 23 educational initiatives recently carried out by CTL's faculty fellows, faculty learning communities, Brittain Fellows, and other members of the broader Georgia Tech community.

Thank a Teacher recipients and recipients of the 2022 Student Recognition of Excellence in Teaching CIOS Honor Roll and CIOS Award were honored. Poster displays of notes and the verbal reading of notes exemplified the positive impact that Georgia Tech educators are having on their students' learning experiences.

**124 members** of the Georgia Tech community participated in Celebrating Teaching Day.

**100%** of attendees gave the event an overall rating of very good or excellent and an average rating of **4.0** / **5.0** with 5 being excellent.

### **Events**

### **Teaching and Learning Forum**

This year's forum, hosted by the Center for Teaching and Learning focused on processing and reflecting on student feedback from CIOS. We considered how to analyze, reflect on, and incorporate student feedback productively.

We incorporated tools to analyze feedback such as looking at themes through a matrix as well as themes around key words used by students. After reflection and lunch, we considered ways to incorporate feedback into course design. These tools included a road map for easy, moderate, and re-imagined changes as well as strategies to communicate with and support feedback from students.

The event had 17 participants with 80% ranking it as very good or excellent.

The event was held on May 15, 2023.

Facilitated by Dr. Karen Bunch Franklin





### Transformative Teaching and Learning | Faculty Initiatives

The Transformative Teaching and Learning (TTL) Strategic Initiative calls us to:

Promote innovation in teaching and learning practices by providing faculty support to innovate and scale transformative teaching practices and creating conditions for all students to engage in meaningful experiential learning.

The 2023 TTL Faculty Initiative Pilot engaged faculty in the development of Georgia Tech's objective to ensure all students have access to transformative learning experiences.

### **TTL Faculty Initiative Kick-off**

Faculty participants in this half-day workshop explored and ideated potential transformative teaching and learning approaches that lead to significant learning. Attendees heard from faculty colleagues about their incorporation of high impact teaching practices to foster transformative learning. Participants were invited to develop their own transformative teaching innovation and apply for the TTL Innovation Incubator faculty grant.

Thirty faculty representing diverse faculty ranks attended the kickoff workshop and 100% rated the event as very good or excellent.

- •"As we think about these strategies, it will be great to consider equity and for whom those work
- •"Energizing and exciting thank you for providing the opportunity to think and brainstorm

### TTL Innovation Incubator Faculty Grant

To provide faculty incubator space to enable pedagogical innovation, instructors were invited to apply for the TTL Innovation Incubator grant to receive financial and programmatic support to plan, implement and evaluate a transformative teaching project.

The pilot prioritized proposals of teaching innovations that focus on:

- 1.Incorporating **High Impact Practices** and/or the
- 8 Key Elements of High-Impact Practices that have emerged from the academic literature on student success.
- 2.Embedding experiential learning within traditional course structures.
- 3. Creating community connections that enhance student-to-student interactions, faculty-to-student interactions, and/or student-to-community interactions within traditional course structures.



#### **TTL Innovation Incubator Faculty Grant Recipients**

	•
Misemer, Leah	VIP Program
Ross, Kyla & Nazzal, Dima	BME/ISYE
Doremus, Stacey	LEAD/Public Policy
Khazaal, Natalie	Modern Languages
Rebeka, Aleks	Scheller
Borela, Rodrigo	Computing Instruction
Nagel, Kristine	Computing Instruction
Wills, Linda	ECE
Dobranski, Shannon	OUE + FYSA faculty
Urmanbetova, Aselia	Economics
Rudchenko, Tatiana	Scheller

### **Partner Events and Initiatives**

### **Sustainability Education Initiatives**

### Teaching with the UN Sustainable Development Goals (SDGs)

During the past year, CTL continued to advance its collaboration with other Georgia Tech units on course design and teaching with sustainability and the United Nations Sustainable Development Goals (SDGs) through several initiatives and a new CTL position.

The UN SDGs are a set of 17 broad and interconnected goals that address the global challenges humanity faces. They are comprehensive and visionary, including ending poverty and hunger, reducing inequality, and strengthening the health of human communities and ecosystems globally. Incorporating the SDGs into our teaching can help students make connections between their disciplinary knowledge and skills and the world's most pressing challenges. These "real world" connections also often make course content more relevant to students, enhancing motivation.

During the 2022-23 academic year, the Center for Teaching and Learning partnered with Serve-Learn-Sustain (SLS), Sustainability Next, and partners from Kennesaw State University, University of Georgia, and Georgia Southern University to advance multi-institutional collaboration on faculty development in sustainability education.

- Fall, Spring, and Summer 2022-23: Georgia Community of Practice on Teaching with the UN SDGs
- Spring 2023: New CTL position and launch of Undergraduate Sustainability Education Committee (USEC) and Sustainability Education Innovation Awards
- Spring 2023: Extension of Georgia Community of Practice on Teaching with the SDGs through the Georgia Climate Project, including a panel presentation on Innovative Climate Pedagogy at the Georgia Climate Conference

## Georgia Community of Practice on Teaching with the SDGs

Launched following a May, 2022 planning session, this Community of Practice (CoP) met twice each semester during the 2022-23 academic year. Carol Subiño Sullivan & Rebecca Watts Hull (CTL), Tyra Byers (UGA), and Mandy McGrew (KSU) facilitated the CoP.

Each 90-minute session featured faculty presenters and focused on an area of SDG teaching identified by the group as a priority:

- Using interactive, online tools to support teaching and learning about the SDGs
- Connecting local and global perspectives, challenges and initiatives to teach the SDGs
- Community-engaged teaching with the SDGs
- Interdisciplinary collaboration in SDG teaching and learning

Participants of the CoP include faculty from five USG institutions: Georgia Tech, KSU, UGA, GSU, and Georgia Southern. In addition to learning from each other through four virtual workshops each year, participants contributed to a "library" of shared resources including syllabi, sample student projects, recommended readings, and helpful SDG-oriented course design resources.

Work conducted by this group resulted in a poster presentation for the Professional and Organizational Development Network in Higher Education (POD) Conference in November 2022 entitled, "Re-Imagining Multi-Institutional Collaborations that Re-Connect Curriculum through the UN SDGs."

## New CTL Position Supports Sustainability Education

In January 2023, CTL launched a new position: assistant director, faculty development for sustainability education initiatives. Rebecca Watts Hull, formerly with the Center for Serve-Learn-Sustain, was selected for the new position. In this new role, Rebecca works with faculty to incorporate Sustainability & Education for Sustainable Development into their course design and teaching practices. She partners with other units to lead strategic initiatives related to sustainability education, including Sustainability Next's Education for Sustainable Development implementation plan. Rebecca collaborates closely with Serve-Learn-Sustain (SLS—recently renamed the Center for Sustainable Communities Research and Education) to support faculty interested in incorporating community-engaged teaching into their sustainability and SDG teaching.

In addition to institutionalizing CTL's role in sustainability education, the new position facilitates CTL's ability to incorporate Education for Sustainable Development into its core programming, including the annual Course Design Studio and other faculty development workshops, Faculty Learning Communities, and Communities of Practice.







### **Partner Events and Initiatives**

### **Sustainability Education Initiatives**

#### **Sustainability Next Education**

The collaborative work of CTL, Serve-Learn-Sustain (SLS), and partners on other USG campuses to support faculty interested in engaging with sustainability and the SDGs in their teaching has been supported by initiatives associated with the <a href="Institute Strategic Planning (ISP)">Institute Strategic Planning (ISP)</a> process. Several portions of the 2020-2030 ISP embrace Sustainability Education that equips students to solve global challenges and create a more just and sustainable society. Specifically, ISP objectives that support Education for Sustainable Development (<a href="SDG target 4.7">SDG target 4.7</a>) include: "strengthen the curriculum in areas that support the U.N. Sustainable Development Goals" and "make experiential, problem-based service learning a signature of all academic and research programs." In 2022, an ISP implementation team called Sustainability Next published a <a href="detailed plan of action">detailed plan of action</a> for "scaling up" Sustainability Education across all six colleges. To support inclusive implementation of the plan, Sustainability Next education leaders, including CTL's sustainability education lead, launched a new ISP-aligned Undergraduate Sustainability Education Committee (USEC), which includes faculty from most of Georgia Tech's 29 schools.

Facilitated by Sustainability Next Education Lead Jennifer Leavey and CTL's Rebecca Watts Hull, USEC began meeting monthly in February 2023 and during Spring and Summer 2023 accomplished the following:

- Evaluated 28 grant applications resulting in 21 Undergraduate Sustainability Innovation Awards;
- Convened a half-day Jamboree in April that updated the Georgia Tech community on interrelated sustainability education centers and initiatives, presented and identified synergies among the 21 sustainability education innovation awards, and facilitated brainstorming sessions on priority next steps for the committee and future grant programs;
- Reviewed and evaluated currently available online faculty resources supporting sustainability and SDG teaching, informing planning for additional resources;
- Developed a second call for proposals and associated rubric, released in July 2023, that will fund additional course re-design projects, design of modules that can be incorporated across disciplines, and other sustainability education initiatives.

#### **Undergraduate Sustainability Awards**

In February 2023, Sustainability Next offered the first Call for Proposals for <u>Sustainability</u> <u>Curricular Innovation Grants</u> to advance sustainability and SDG concept and skill integration, prioritizing courses that would reach large numbers of Georgia Tech students. The newly-created Undergraduate Sustainability Education Committee (USEC), with CTL co-leadership, reviewed

and selected 21 winning proposals. The course design and re-design projects represent all six colleges and 18 schools. With many winning projects featuring high enrollment and core courses, this first round of sustainability education "seed grants" will significantly expand the reach of Georgia Tech's sustainability-across-the-curriculum initiatives.

Principal Investigators	Project
Rodrigo Borela (CoC/Computing Instruction)	Incorporating energy efficiency into the CS core curriculum
Sagnika Chanda (IAC/LMC)	SDG 8Speculative fiction and work: Histories, futures, and resilience
Ece Erdogmus (CoD/Building Construction)	Transforming construction management and real estate development education at Georgia Tech for a more sustainable built environment
Jennifer Glass (CoS/EAS)	Enhancing place-based learning in EAS 1600—Introduction to Environmental Sciences
Kelly Griendling (CoE/aerospace)	Including UN SDGs in aerospace education through a sustainability-focused urban air mobility module
Zachary Handlos (CoS/EAS)	Creating a new interdisciplinary course: Georgia Climate Project
Josiah Hester (CoC/Interactive Computing)	Project-based learning for intensive, expert-informed co-design of technology targeting sustainability
Allen Hyde (IAC/HSOC)	Incorporating the UN SDGs in introduction to sociology
Tiffany Johnson (Scheller College of Business)	Re-Designing a work, equity, and wellness course with the "three Es"
Sabir Khan (CoD/Industrial Design)	Re-Making the collaborative design workshop course to incorporate the UN SDGs and increase class size
Robbie Moon (Scheller College of Business)	Developing a new course in accounting and reporting for sustainable business
Raghu Pucha (CoE/ME)	SDG-focused socio-technical project-based learning in a core engineering course
Mary Lynn Realff (CoE/Materials Science)	Designing and nurturing a sustainable world of materials—Integration of UN SDGs into the MSE curriculum
Juan Carlos Rodriguez (IAC/Modern Languages)	Re-designing an Ibero-American cities course—SDGs in Latin America
Mahdi Roozbahani (CoC/Computing Instruction)	Sustaining ethics in large AI classes
Nimisha Roy (CoC/Computing Instruction)	Integrating sustainability modules into software engineering and capstone courses
Deborah Santos (CoS/Chem&Biochem)	Laboratory-based course re-design project on the chemistry of alternative energy sources
Teresa Snow (Biological Sciences)	Course Redesign to Implement Project-Based Learning for Social Change
Aselia Urmanbetova (Economics)	Economic Models for Better Policies on Equity, Economy, and Environment for Economics and Non-economics Courses
Emily Weigel (Biological Sciences)	Sustainability Next: Taking a Sustainable Open-Educational Resource and SDG-ing it!
Samantha Wilson (EAS)	Developing and Enhancing Experiential Learning in a New EAS Course (EAS & Policy)



### **Partner Events and Initiatives**

### **College of Sciences**

#### **Inclusive STEM Teaching Project**

The Inclusive STEM Teaching Project (ISTP) is an online, asynchronous course developed through the NSF Improving Undergraduate STEM Education program. It aims to advance the ability and awareness of STEM faculty, postdocs, graduate students, and staff to cultivate inclusive learning environments for all of their students. Georgia Tech has been participating in this project since 2021.

In Spring 2023, Kate Williams and Carol Subiño Sullivan from CTL partnered with Jennifer Leavey and Carrie Shepler, Assistant Deans in the College of Sciences and Diley Hernandez, Associate Vice President of Institute Diversity, Equity, and Inclusion to host the second annual Inclusive STEM Teaching Symposium. Fifteen Fellows participated in a two-day symposium on May 10-11, 2023, and completed the Inclusive STEM Teaching Project Online Course and weekly check-ins through Canvas. The Fellows received a \$1000 professional development stipend.



The Inclusive STEM Teaching Fellows program was designed to advance the awareness, self-efficacy, and ability of STEM instructors to cultivate inclusive learning environments for all their students and to develop themselves as reflective, inclusive practitioners. The institute covered the following themes designed to help instructors construct classroom environments that support the complexities that contribute to student persistence: social identity and its impact on

learning; power, positionality, and privilege; inclusive course design; interruption of oppression and microaggressions; and evidence-based teaching.

Additional partners for the Fellows program included: the Georgia Tech College of Sciences, College of Computing, College of Engineering, the Center for Teaching and Learning, and Institute Diversity, Equity, and Inclusion. This program was sponsored by the National Science Foundation Inclusive STEM Teaching Project and the Howard Hughes Medical Institute Inclusive Excellence 3 Learning Community.

#### **Inclusive STEM Teaching Fellows**

- Rayne Bozeman, CEISMC, Academic Professional
- Morag Burke, Mathematics, Senior Academic Professional
- Denis Dorozhkin, Mechanical Engineering, Lecturer
- Brian Hammer, Biological Sciences, Associate Professor
- Mary Holder, Psychology/Neuroscience, Academic Professional
- David Hu, Mechanical Engineering, Professor
- Andrew McShan, Chemistry and Biochemistry, Assistant Professor
- **Cristina Riso**, Aerospace Engineering, Assistant Professor
- Eric Schumacher, Psychology, Professor
- Himani Sharma, Materials Science and Engineering, Lecturer
- Chrissy Spencer, Biological Sciences, Senior Academic Professional
- Lakshmi Raju, Electrical and Computer Engineering, Academic Professional
- Semsi Rakici, Building Construction, Postdoctoral Fellow
- **Aselia Urmanbetova**, Economics, *Academic Professional*

# **Engaging Faculty through the Inclusive STEM Teaching Fellows Program**

In March 2023, we made a presentation about our work on the ISTP initiative at the USG Teaching and Learning Conference in Athens, GA. After sharing our approach to implementing the ISTP at Georgia Tech, we offered the opportunity for participants to experience a few of the activities that we include in the ISTP symposium:

- Getting to Know You: Participants reflected on their educational experiences and identified something they wish others knew about their journeys.
- Identifying and Responding to Hesitancies: Participants learned about common hesitancies around inclusive teaching and brainstormed ideas for supporting someone in working through that hesitancy.
- Social Identity Wheel: Participants explored aspects of their identities and discussed ways to represent those identities in instructional settings.





### **Partner Events and Initiatives**

**College of Design** 





This is the second annual student choice award for instructors in the College of Design organized by the Provost Teaching and Learning Fellows and the Center for Teaching and Learning in consultation with a committee of Design students. It recognizes educators in the College of Design who made a positive impact on their academic experiences, especially during the hybrid mode of teaching during the pandemic.

Dr. Noah Posner is the 2023 Winner!



### **The Process**

November 2022: Call for nominations is sent

to students

**December 2022:**Receive nominations and organize nominee packets for student review

February-March 2023: Prepare award booklet Plan award finalists panel

Nov-Dec 2022:

Recruit student reviewer (Collaboration with School Chairs)

January 2023: Students review

nominations

**April 2023:** 

Panel of award nominees Award presented at Design Spring Celebration

**42** instructors from all five Schools were nominated

15 students from all five Schools involved as reviewers Students represented undergraduate and graduate student communities.



### **Partner Events and Initiatives**

#### **Executive Vice President for Research**

#### **Research Faculty Teaching Fellows**

The Research Faculty Teaching Fellows program is a partnership with the Executive Vice President for Research, the Center for Teaching and Learning, and GTRI. It provides opportunities for research faculty to teach a course in an academic unit. Through this program, students are able to connect their courses with applied research and new opportunities for collaboration between the research units and the academic units are fostered.

Amanda Nolen (CTL) and Karen Franklin (CTL) partnered with Crystal Hansen (Interdisciplinary Research), James Cannady (GTRI), and Lauren Stewart (Civil & Env. Engineering) to recruit and select the 2023-24 cohort of the Research Faculty Teaching Fellows. The Center for Teaching and Learning also provided teaching support to the 2022-23 cohort through engagement in the Course Design Studio and check in meetings during the semester they taught their course.

### **Biomedical Engineering**

#### **NSF Revolutionizing Engineering Departments Project**

Throughout the 2022-23 academic year, Dr. Amanda Nolen (CTL) collaborated with Dr. Joe Le Doux (BME) and Dr. Rachael Pitts Hall (BME) to lead a faculty learning committee that included BME faculty from Georgia Tech and Emory University. This committee explored critically reflective teaching practices and innovative pedagogical strategies including storytelling and inclusive teaching. The goal of the project is to build programming and practices that foster belonging in engineering education.

### Office of Undergraduate Education

#### **Georgia Legislative Requirement Curriculum Project**

In the Fall 2022, Amanda Nolen (CTL) and Lauren Barbeau (CTL) joined a team of faculty including Matthew Hild (History), Chad Slieper (Public Policy), and Roberta Berry (Office of Undergraduate Education and the Honors Program), to design a non-credit Canvas course that meets the four Georgia legislative requirements for graduation. This course provides a way for students who enter Georgia Tech with AP or IB examination credits in US or Georgia History or for courses transferred from institutions outside the USG system to meet the requirements by earning a passing score on the module exam. Dr. Nolen and Dr. Barbeau provided input on the curriculum design and the curriculum presentation on Canvas. The Canvas course received approval from the Institute Undergraduate Curriculum Committee and will be launched Summer 2023.

#### **GT 1000/2000 Instructor Training**

On June 8, 2023, Carol Subiño Sullivan (CTL) and Karen Franklin (CTL) presented a session at the GT 1000/2000 Instructor Training Conference. Their session, "Nurturing Belonging: Inclusive Teaching Strategies that Support Students' Transition to College" introduced the participants to instructional strategies that promote a sense of belonging. These strategies included key elements to communicate belonging, constructive feedback, and social belonging intervention.

"The Humble Chair", an artifact of the 2022 Diversity Symposium, can be found in the lobby of the Ferst Center for the Arts, where visitors can view the different chairs that represent the diverse representation of Georgia Tech.

### Institute Diversity, Equity & Inclusion

#### **Diversity Symposium**

On September 14, 2022, Georgia Tech hosted its annual Diversity Symposium, "Illusions of Inclusion: Invisible Barriers to Belonging." The symposium featured two keynote speakers and several panels of Georgia Tech faculty and students. Carol Subiño Sullivan from the Center for Teaching and Learning served on the planning committee for the symposium, collaborating with Institute Diversity, Equity and Inclusion and other leaders from across the institute to identify the symposium's theme and plan the event. One key contribution was to encourage the committee to incorporate an art experience to give participants an opportunity to process the insights from the symposium. The result was the creation of the collaborative piece "The Humble Chair" (shown in photo) made up of hundreds of paper chairs created by event participants.



### **Partner Events and Initiatives**

### **Office of Faulty Affairs**

#### **New Faculty Orientation**

The Center for Teaching and Learning partnered with the Office of Faculty Affairs to welcome new faculty at the new faculty orientation in August 2022. We also engaged new faculty again during a New Faculty Academy session on Policies and Procedures Pertaining to Teaching on September 16, 2022.

At the New Faculty Orientation, Joyce Weinsheimer and Carol Subiño Sullivan facilitated two round table conversations with new faculty. In the first session, participants reflected on the faculty experience of teaching at Georgia Tech. During their conversation, the new faculty shared their hopes for what their new students will learn in their courses. They also explored resources such as the Teaching at Georgia Tech Guidebook and the Learning Environment Toolkit. In the second sessions, participants reflected on the student academic experience at Georgia Tech. They thought back to what helped them feel most supported as a student and learned about key actions that support student academic well-being.

At the New Faculty Academy, Carol Subiño Sullivan engaged faculty in an activity to help them become familiar with important policies and procedures pertaining to teaching. Participants identified the policy that would inform the course of action to take in a number of example scenarios and had the opportunity to ask questions of two colleagues, Amy D'Unger (Associate Director of the Honors Program and Senior Academic Professional in History and Sociology) and Leila Glass (Assistant Professor in Modern Languages).

### **School of Public Policy**

#### **2023 Renovation Plan**

The D.M. Smith building, home of Georgia Tech School of Public Policy, was approved for a comprehensive renovation by the Board of Regents to be completed in 2025. During the design process (AY 23), the center faculty (Carol Subiño Sullivan and Amanda Nolen) have consulted with the school faculty, architects, and design team as they design classroom, lab, and study spaces, focusing on principles and practices that support teaching and learning to drive the space design.



Renovation consultation focusing on focusing on principles and practices that support teaching and learning to drive the space design.



### **CTL Programming**

### Faculty Teaching & Learning Workshops

#### **Grading Reimagined: Rethinking Assessment** with Emerging Grading Techniques

Carol Sullivan (CTL) and Will Howitz (Chemistry and Biochemistry) presented this workshop which invited faculty to consider alternative approaches to grading.

What if you could develop a grading structure that increases students' intrinsic motivation for learning and encourages them to use your feedback to improve their learning while reducing their focus on points? At this interactive session, participants will identify common challenges inherent in traditional grading. We will explore alternatives to traditional grading that could alleviate typical grading challenges while reinforcing student learning. Participants will create an implementation plan that will allow them to begin to incorporate elements of an emerging grading system that fits their specific goals and situation.

**70** attendees, **4.9/5.0** rating

Spring 2023

**Micro-workshop Series** 

During Spring 2023, CTL hosted a series of Micro-workshops centered around three themes:

- Teaching Strategies: How can I engage students in large classes? • Documenting Teaching for Student Success: How do I demonstrate my teaching effectiveness?
- Building the Course: How do I design my courses to support student success?

There were seven micro-workshops in the series and participants had the option to earn a digital badge by completing the workshop and activity.

- Theme 1: 21 attendees, 7 badges awarded
- Theme 2: 28 attendees, 7 badges awarded
- Theme 3: 18 attendees, 4 badges awarded

#### **Engaging Students in Learning In and Out of** the Classroom

Explored the main factors that influence student engagement based on current motivation and engagement research. Participants discussed how small changes in the instructor's behavior, messaging, and course narratives could have broad impact on whether and how the students engage the content both in the classroom and throughout the week. Finally, participants identified strategies to engage students behaviorally, cognitively, and emotionally in the context of their courses.

33 attendees, 4.5/5.0 rating

The Center for Teaching and Learning offers a professional development experience in course design. CTL offered this 12-hour short course in two formats, in-person and virtual. The in- person studio met on May 23, 25, 30, and June 1. The virtual studio (synchronous) will occur July 17, 19, 24, and 26.

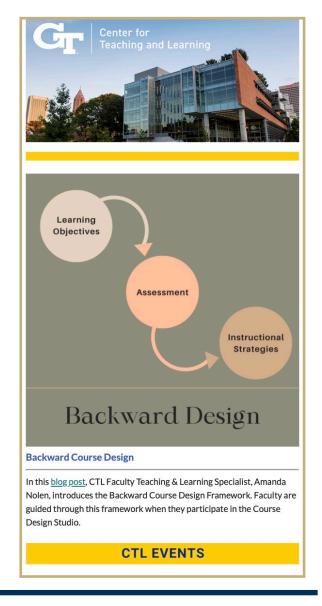
**Course Design Studio** 

The studio focused on the fundamentals of backwards course design, guiding participants through a process of developing their course learning objectives, identifying component skills, designing their assessment plan, identifying appropriate learning activities, and finalizing the overall structure and schedule of the course. As they thought about each course element, participants were encouraged to think about inclusive teaching and supporting academic well-being. The studio seamlessly blended individual work, group discussion and peer feedback.

#### **CTL Newsletter**

In 2022-2023, the Center for Teaching and Learning continued producing the CTL newsletter, which shares information about teaching with over 1700 Georgia Tech faculty, including quick teaching tips, opportunities to connect with colleagues at workshops and events on campus, and external professional development opportunities. We produced 16 newsletters, with an average of 807 opens and 45 clicks. This does not include a number of special edition emails that went out to promote various CTL events.

In Spring 2023, the newsletter was redesigned (see below).





### **Ongoing Groups**

### **Teaching Fellows**

#### **Class of 1969 Teaching Fellows**

The Class of 1969 Teaching Fellows is an interdisciplinary group of early career faculty who meet regularly for pedagogically focused support and professional development. The Fellows explore evidence-based best practices and new and innovative teaching methods. In addition, the Fellows develop and pilot initiatives that can be used for the education component of major award applications.

#### Class of 1969 Teaching Fellows 2022-2023:

- Ahmed Said Computer Science
- Anqi Wu Computational Science and Engineering
- Spencer Bryngelson Computational Science and Engineering
- Ashutosh Dhekne Computer Science
- Elisa Dainese Architecture
- Claire Arthur Music
- Cristina Riso Aerospace Engineering
- Yue Chen Biomedical Engineering
- Akanksha Menon Mechanical Engineering
- Vanessa Smet Mechanical Engineering
- Diego Cifuentes Industrial & Systems Engineering
- Ida Yoshinaga Literature, Media, and Communication
- Keung Yoon Bae Modern Languages
- Amanda Weiss Modern Languages
- Hongchen Wu Modern Languages

### Class of 1969 Project Examples

The Class of 1969 Teaching Fellows also engaged in a variety of teaching projects and initiatives, using funds from the Class of 1969 Endowment to support their work. Some of these projects included:

- Hongchen Wu (Modern Languages) examined how to invite students to engage the content outside of class by using a self-study language learning app.
- Ashutosh Dhekne (Computer Science) explored how physical props (manipulatives) in an introductory systems course on Computer Networking (CS3251) could spark interest as well as make elusive concepts more accessible to students. He designed and created lighted fiber optic tubes and acrylic boxes to demonstrate networking concepts that students historically have had difficulty grasping.
- Cristina Riso (Aerospace Engineering) developed animations of vibrating strings and beams using software tools to allow students to "see" the behaviors for which they are deriving equations in her Structural Dynamics and Aeroelasticity (AE 4220) course.
- Claire Arthur (Music) redesigned her Intro to Music Technologies II course (MUSI 2026) in which students have struggled with understanding the mathematics and logic behind the Fourier transform and basic coding techniques. She flipped some of the content in the course content so that students could watch/study/play in advance of class, including some coding activities for students who needed support in that area.
- Elisa Dainese (Architecture) explored how to increase engagement and inclusivity in her large course History of Architecture II (ARCH 2112-6106). Her project focused on current criticisms of traditional forms or instruction in architecture education in order to build a library that will allow her to develop teaching practices, assessment, and activities tailored to promoting engagement, diversity, and inclusion in her classroom.
- Amanda Weiss (Modern Languages) developed illustrated materials for her Japanese Culture and Society Through Anime (JAPN 4173). This is a Japanese language course focused on the history, production, and aesthetics of anime. The new materials are designed to better synthesize content learning goals with language learning goals.

#### **Hesburgh Award Teaching Fellows**

The Hesburgh Award Teaching Fellows brings together mid-career and senior faculty who have demonstrated strength in the classroom and are interested in working on initiatives that further enhance student learning. This is an "invitation" program that honors individuals who are already successful in their own careers and who have the potential of providing leadership in teaching and learning to their colleagues as well.

The Hesburgh Award Scholars met weekly in the Fall. They spend the semester studying alternative grading methods including mastery grading, contract grading, specifications grading, and ungrading. For each, they explore the implications for the instructor and student, the flexibility and scalability, and the core values. The findings of their review of the literature were presented at the Celebrating Teaching Day poster exhibit.

#### The 2022-2023 Hesburgh Award Teaching Fellows included:

- Ed Greco, Physics
- Hui Zhu, Chemistry and Biochemistry
- Amit Jariwala, Mechanical Engineering
- Teresa Snow, Biological Sciences
- Michael Buchanan, Scheller College of Business
- Ennis Parker, School of Business Construction
- John Threadgill, School of Business Construction
- Lauren Stewart, Civil & Environmental Engineering



### **Ongoing Groups**

### **Teaching Fellows**

#### **Provost Teaching and Learning Fellows**

The vision for the Provost Teaching and Learning Fellows (PTLF) program is to connect the expertise of evidence-based teaching and learning professionals in the Center for Teaching and Learning with the expertise of disciplinary faculty in each college/school. The goal of this hub-and-spoke model is to strengthen teaching and learning in the disciplines through an embedded system of on-going instructional support and special initiatives. In Fall 2022 we welcomed our fourth cohort of Provost Teaching and Learning Fellows who will serve from 2022-2024.

Each Provost Teaching and Learning Fellows participates in full cohort, college cohort and faculty learning community where they engage in professional learning, advance conversations, and develop initiatives about teaching and learning at Georgia Tech.

In the full cohort gatherings, PTLFs engaged in discussions about hot topics such as transformative teaching and learning, inclusive teaching practices, alternative approaches to assessment, and the role of generative AI in higher education.

The college cohorts worked to advance teaching and learning initiatives such as awarding the Student Choice Teacher of the Year Award in the College of Design, organizing a panel on teaching with generative AI by the College of Computing and administering a survey of Engineering faculty about effective instructional practices.

To learn more about the slate of FLCs launched in Fall 2022, see the next two slides.



#### **Provost Teaching and Learning Fellows 2022-2024**

- Betsy DiSalvo, Interactive Computing
- David Joyner, College of Computing
- Mark Moss, Computing Instruction
- Javier Irizarry, Building Construction
- Pardis Pishdad-Bozorg, Building Construction
- Jerry Ulrich, Music
- David Anderson, Electrical & Computer Engineering
- Kevin Johnson, Electrical & Computer Engineering
- Dima Nazzal, Industrial & Systems Engineering
- Raghuram Pucha, Mechanical Engineering
- Linda Wills, Electrical & Computer Engineering
- Michael Evans, Chemistry & Biochemistry
  Elisabetta Matsumoto, Physics
- Scott Moffat, Pscychology
- Shana Kerr, Biological Sciences
- Rachel Dean-Ruzicka, Literature, Media & Communications
- Nathan Moon, Public Policy
- Robert Kirkman, Public Policy
- Jacqueline Garner, Finance
- Michael Smith, Information Technology Management
- Ravi Subramanian, Operations Management
- Robbie Moon, Accounting

#### **Research Faculty Teaching Fellows**

The Research Faculty Teaching Fellows program is a partnership with the Executive Vice President for Research, the Center for Teaching and Learning, and GTRI. It provides opportunities for research faculty to teach a course in an academic unit. Through this program, students are able to connect their courses with applied research and new opportunities for collaboration between the research units and the academic units are fostered.

Karen Franklin and Amanda Nolen (CTL) partnered with Crystal Hanson (Interdisciplinary Research), James Cannady (GTRI), and Wayne Whiteman (Mechanical Engineering) to recruit and select the 2023-24 cohort of Research Faculty Teaching Fellows. The Center for Teaching and Learning also provided teaching support to the 2022-23 cohort of Research Faculty Teaching Fellows through engagement in the Course Design Studio, check in meetings during the semester they taught their course, and by classroom observations and early course feedback.

#### 2022-2023 Research Faculty Teaching Fellows included:

- Laura Levy, Interactive Media Technology Center, Senior Research Scientist
- **Nathan Moon,** Center for Advanced Communication Policy, Principal Research Scientist
- VargheseT homas, Georgia Electronic Design Center, Research Associate II
- **Zerrin Ondin**, Center for Inclusive Design and Innovation, Research Scientist II
- **Douglas Hope,** Electro-Optical Systems Laboratory, Senior Research Engineer
- Jeffrey Young, Computer Science, Senior Research Scientist
- James Humpries, Sensors and Electromagnetic Applications Laboratory, Research Engineer II
- Charles Bopp, Sensors and Electromagnetic Applications Laboratory, Senior Research Engineer
- **Brian Jones,** Interactive Media Technology Center, Principal Research Engineer



### **Ongoing Groups**

### **Faculty Learning Communities**





FLC

FACULTY LEARNING COMMUNITIES

#### **Success & Assessment of Online Teaching and Learning**

The FLC on Success & Assessment of Online Teaching and Learning has focused on building foundational knowledge and began work on multiple projects with both short- and long-term goals in mind. Currently the FLC is engaged in bringing awareness and knowledge around the growing impacts of AI on education and development of potential additional CIOS questions specific to online courses.

Members of the Assessment on Online Teaching FLC included:

- Meghan Babcock, School of Psychology, Lecturer
- **Kevin Johnson**, School of Electrical and Computer Engineering, Senior Lecturer
- **David Joyner**, School of Interactive Computing & Division of Computing Instruction, Executive Director of Online Education & OMSCS and Senior Research Associate
- Mark Moss, School of Computing Instruction, Senior Lecturer
- Christopher Poch, School of Computing Instruction, Lecturer
- Michael Smith, Scheller College of Business, Senior Lecturer

The FLC was facilitated by CTL's Dr. Vincent Spezzo, Assistant Director for Teaching and Learning Online, Dr. Lauren Barbeau, Assistant Director for Learning and Technology Initiatives, and Dr. Peter Ariev, Senior Academic Professional.

#### **Teaching as Inquiry**

This FLC's core value is to approach teaching as a scholarly act and a point of inquiry. The members of the FLC have mapped their current projects onto a digital whiteboard (Miro) seen on the right. There they can see where their projects overlap in the focus or method of inquiry thus creating opportunities to build capacity. The colorful bar at the bottom of a sticky note indicates that there are multiple projects that are focusing on a phenomenon.

The FLC meets twice each month. During each meeting, faculty present their ongoing projects to each other for clarity, troubleshooting, inspiration, etc. Other times, Dr. Nolen will provide them with professional development on an identified need related to classroom inquiry (e.g., data collection, analysis, protection of students as participants, etc.).

- Amanda Nolen, Center for Teaching and Learning, Senior Academic Professional
- Ravi Subramanian, Scheller College of Business, Associate Professor
- Elizabeth DiSalvo, Interactive Computing, Associate Professor
- Laura Christian, Biomedical Engineering, Lecturer
- Michael J. Evans, Chemistry & Biochemistry, Senior Academic Professional
- Raghuram Pucha, Mechanical Engineering, Principal Lecturer
- Christian Cuba-Torres, Chemical and Biomolecular Engineering, *Lecturer*



### **Ongoing Groups**

### **Faculty Learning Communities**

#### **Inclusive Teaching**

Creating an equitable and inclusive learning environment where all of our students can learn and experience a sense of belonging is a core value. Yet our society, including our space of higher education, continues to be unjust. The identities that we and our students hold interact with historical and contemporary systems that result in different experiences that advantage some and disadvantage others. To counteract this inequity and be a reflective, culturally responsive, inclusive instructor, we must engage in a lifelong process of discovery and continuous learning. In this faculty learning community, participants supported each other as they engaged in this work and continued to adapt thei teaching practices to the changing needs of the students they work with.

In the Fall this group completed the online course Foundations of Inclusive Teaching by Chavella Pittman, meeting regularly to discuss an apply the insights from the modules. In the Spring, participants engaged in a series of "Dilemmas and Discussions" wherein members of the group volunteered to share a teaching challenge they had experienced for the group to work together to consider inclusive approaches to address that challenge.

The FLC was facilitated by Dr. Carol Subiño-Sullivan, Assistant Director for Faculty Teaching and Learning initiatives in CTL, and Dr. Ruthie Yow, Service Learning and Partnerships Specialist in Tech's Center for Serve-Learn-Sustain.





- Matthew Breece, Literature, Media, and Communication, Brittain Fellow
- Laura Bier, History and Sociology, Associate Professor
- Sagnika Chanda, Literature, Media, and Communication, Brittain Fellow
- Rachel Dean-Ruzicka, Literature, Media, and Communication, Senior Lecturer
- Sean Dolan, Literature, Media, and Communication, Brittain Fellow
- Suchismita Dutta, Literature, Media, and Communication, Brittain Fellow
- **Melissa Foulger**, Literature, Media, and, Communication, Senior Academic Professional
- Sarah Fredericks, Literature, Media, and Communication, Brittain Fellow
- Randal Harrell, Literature, Media, and Communication, Brittain Fellow
- Will Howitz, Chemistry and Biochemistry, Academic Professional
- Elisabetta Matsumoto, Physics, Associate Professor
- Nathan Moon, Center for Advanced Communication Policy, Principal Research Scientist
- Lucas Power, Literature, Media, and Communication, Brittain Fellow
- Jennifer Singh, History and Sociology, Associate Professor
- Brigitte Stephanov, Modern Languages, Assistant Professor
- Rebecca Watts Hull, Center for Teaching and Learning, Academic Professional
- · Jerry Ulrich, Music, Associate Professor

#### **Teaching for Student Success**

Traditional ideas about student success in higher education may conflict with values around supporting learning, equity, and well-being. What might happen if we started from the belief that with enough opportunities for practice with feedback, most students with the motivation to persevere can succeed? In this faculty learning community, we will explore alternative approaches to course design, curriculum development, grading, policy, and mindsets around higher education in an effort to promote real transformation in the way that we engage our students in learning.

This group is building a web resource with perspectives from faculty and students about how to support student success. We also contributed a concept paper for the QEP topic selection process.

The FLC was facilitated by CTL's Dr. Carol Subi!no Sullivan, Assistant Director for Faculty Teaching and Learning initiatives in CTL

- David Anderson, Electrical and Computer Engineering, *Professor*
- Jaqueline Garner, Finance, Senior Lecturer
- Nischita Kaza, Biomedical Engineering, Graduate Student
- Shana Kerr, Biological Sciences, Senior Academic Professional
- Bob Kirkman, Public Policy, Associate Professor
- **Dima Nazzal**, Industrial and Systems Engineering, *Principal Academic Professional*
- Pardis Pishdad-Bozorgi, Building Construction, Associate Professor
- Linda Wills, Electrical and Computer Engineering, Associate Professor



### **Faculty Awards and Recognition**

Each year, the Center for Teaching and Learning coordinates <u>campus awards</u> to honor outstanding faculty contributions to the educational mission of Georgia Tech, including the following:

- CTL/BP Junior Faculty Teaching Excellence Award
- Curriculum Innovation Award
- Education Partnership Award
- Faculty Award for Academic Outreach
- Geoffrey G. Eichholz Faculty Teaching Award
- Innovation and Excellence in Laboratory Instruction Award
- Innovation in Co-curricular Education Award
- Scholarship of Teaching and Learning Award
- Student Recognition of Excellence in Teaching: Class of 1934 CIOS Award
- Teaching Excellence Award for Online Teaching
- Undergraduate Educator Award

In Spring 2023, 13 faculty members received teaching excellence awards, winning a combined total of \$39,000. CTL annually updates the names of all campus faculty award winners and USG Regents' Teaching Excellence Awards on the CTL Teaching Award Wall on the fourth floor of Clough Commons.

## CTL/BP Junior Faculty Teaching Excellence Award (\$3000 Each)

- Anton Bernshteyn, Assistant Professor, Mathematics
- Saad Bhamla, Assistant Professor, Chemical and Biomolecular Engineering
- Gongjie Li, Assistant Professor, Physics

#### **Curriculum Innovation Award (\$3000)**

• Tatiana Rudchenko, Senior Lecturer, Scheller College of Business

#### Faculty Award for Academic Outreach (\$3000)

• Richard Simmons, Senior Research Engineer, Supply Chain and Logistics Institute

### Geoffrey G. Eichholz Faculty Teaching Award (\$3000 each)

- Mary Peek, *Principal Academic Professional*, Chemistry and Biochemistry
- **Emily Weigel**, *Senior Academic Professional*, Biological Sciences

### Innovation and Excellence in Laboratory Instruction Award (\$3000)

• **Benjamin Galfond,** *Academic Professional*, Chemical and Biomolecular Engineering

## Innovation in Co-curricular Education Award (\$3000)

- Eric Lewis, Brittain Postdoctoral Fellow, Literature, Media, and Communication
- Pamela Pollet, Senior Research Scientist, Chemistry and Biochemistry and Eric Lewis, Brittain Fellow, Literature Media and Communication
- Aselia Urmanbetova, Academic Professional, Economics

## Scholarship of Teaching and Learning Award (\$3000)

• Todd Fernandez, Lecturer, Biomedical Engineering

## Teaching Excellence Award for Online Teaching (\$3000)

• **Joel Sokol,** *Professor*, Industrial and Systems Engineering

### Undergraduate Educator Award (\$3000 each)

• Adam Decker, Senior Academic Professional, Biological Sciences









#### **New "Honor Roll" Recognition of Teaching**

Since 2021, the Center for Teaching and Learning has announced the **Student Recognition of Excellence in Teaching: Class of 1934 CIOS Honor Roll.** Instructors must have a minimum of 70% CIOS response rate to be eligible for the recognition and place in the top 25% of the composite CIOS scores for items #16, 17, and 18 to be eligible for the Honor Roll.

The Honor Roll is compiled and announced at the end of each semester. Then, at the end of each calendar year, the top Honor Roll recipients with the highest rankings are notified in January that they have won the Student Recognition of Excellence in Teaching: Class of 1934 CIOS Award.

During Calendar Year 2022, there were a total of 205 individuals recognized on the Semester Honor Rolls. There were 104 individuals on the Spring Honor Roll, 30 on the Summer Honor Roll, and 126 on the Fall Honor Roll. For a full listing of honorees, , see <a href="https://ctl.gatech.edu/content/student-recognition-excellence-teaching-class-1934-honor-roll">https://ctl.gatech.edu/content/student-recognition-excellence-teaching-class-1934-honor-roll</a>

#### Student Recognition of Excellence in Teaching: CIOS Award

This award is one of CTL's annual initiatives to honor outstanding teaching. Specifically, the award recognizes faculty members with exceptional scores and response rates on the Course Instructor Opinion Survey (CIOS). During the 2022 calendar year (Spring 2022 and Fall 2022), fifty Georgia Tech instructors were recognized for their excellence in teaching. While the number of awards is typically forty, the Georgia Tech administration providing funding for 10 more awards this year. The sum of student responses on three CIOS scale items constituted the criteria for selection for this award: (#16) Instructor's respect and concern for students; (#17) Instructor's level of enthusiasm about teaching the course; (#18) Instructor's ability to stimulate interest in the subject matter. Ties were broken by response rate.

#### **Award Winners for Calendar Year 2022**

- Mostafa Ammar, Computer Science
- Esfandiar Behravesh, Biomedical Engineering
- Ryan Blunck, Scheller College of Business
- Joe Bozeman, Civil and Environmental Engineering
- Seung-Eun Chang, Modern Languages
- Satomi Suzuki Chenoweth, Modern Languages
- Laura Christian, Biomedical Engineering
- Ahmet Coskun, Biomedical Engineering
- Karie Davis-Nozemack, Scheller College of Business
- Aaron Hackett, Scheller College of Business
- Timothy Halloran, Scheller College of Business
- Manpreet Hora, Scheller College of Business
- Yu Jeffrey Hu, Scheller College of Business
- Kevin Johnson, Electrical and Computer Engineering
- Gary Jones, Scheller College of Business
- Andrea Jonsson, Modern Languages
- Bo Kyoung Kim, Modern Languages
- Laura Levy, Interactive Media Tech Center
- Frank Li, Electrical and Computer Engineering
- Dong Liu, Scheller College of Business
- Jin Liu, Modern Languages
- Kirill Lobachev, Biological Sciences
- Jye Chyi Lu, Industrial and Systems Engineering
- Eliza Markley, International Affairs
- Lisa Marks, Industrial Design

- Karl Meyer, Civil and Environmental Engineering
- Lee Oh, Modern Languages
- Yumi Parks, Modern Languages
- Melissa Pilkington, Modern Languages
- Noah Posner, Industrial Design
- Heather Potts, Architecture
- Frank Rothaermel, Scheller College of Business
- Brendan Saltaformaggio, Electrical and Computer Engineering
- Deborah Santos, Chemistry and Biochemistry
- Ankur Singh, Mechanical Engineering
- Manpreet Singh, Scheller College of Business
- Vinod Singhal, Scheller College of Business
- Chad Slieper, Public Policy
- Kofi Smith, Building Construction
- Brigitte Stepanov, Modern Languages
- Samba Sy, Modern Languages
- Jane Thayer, Scheller College of Business
- **David Torello**, Mechanical Engineering
- **Deborah Tuner**, Scheller College of Business
- Qi Wang, Literature, Media, and Communication
- Emily Weigel, Biological Sciences
- Amanda Weiss, Modern Languages
- Samantha Wilson, Earth & Atmospheric Sciences
- Shannon Yee, Mechanical Engineering
- Juba Ziani, Industrial Systems & Engineering



### Teaching & Learning in the Age of Al



In the ever-evolving landscape of education, finding innovative and effective methods to engage students is crucial for instructors. As the Artificial Intelligence (AI) space continues to expand, the incorporation of Generative AI into pedagogy holds immense potential to enhance the teaching and learning experience for both students and faculty. Over the past Spring 2023 semester, the Center for Teaching and Learning has been at the forefront of this educational frontier, organizing a series of thought-provoking workshops designed to empower faculty to explore the integration of Generative AI into their teaching practices.

In addition to resources, collaborations, consultations, and many inspiring conversations held throughout Spring, CTL also provided five Al-themed events that collectively attracted a total of 316 attendees. Through these workshops, our center sought to inspire educators to harness the transformative power of generative Al and leverage its capabilities to foster innovative, creative, and engaging learning environments. These events represent the beginning of a series that will continue in the 2023-2024 academic year as Al becomes growing factor in higher education.

Date	Title	Attendees
February 10, 2023	What is ChatGPT and How are Georgia Tech Faculty Responding	65
April 26, 2023	Transforming Teaching and Learning with ChatGPT	70
May 11, 2023	Encore: Transforming Teaching and Learning with ChatGPT	110
May 17, 2023	Academic and Ethical Dimensions with ChatGPT	16
June 26 - 29, 2023	Summer Institute: Assessment in the Age of Al	55
	Total	316



### Teaching with Technology Featured Workshop



# Transforming Teaching and Learning with ChatGPT

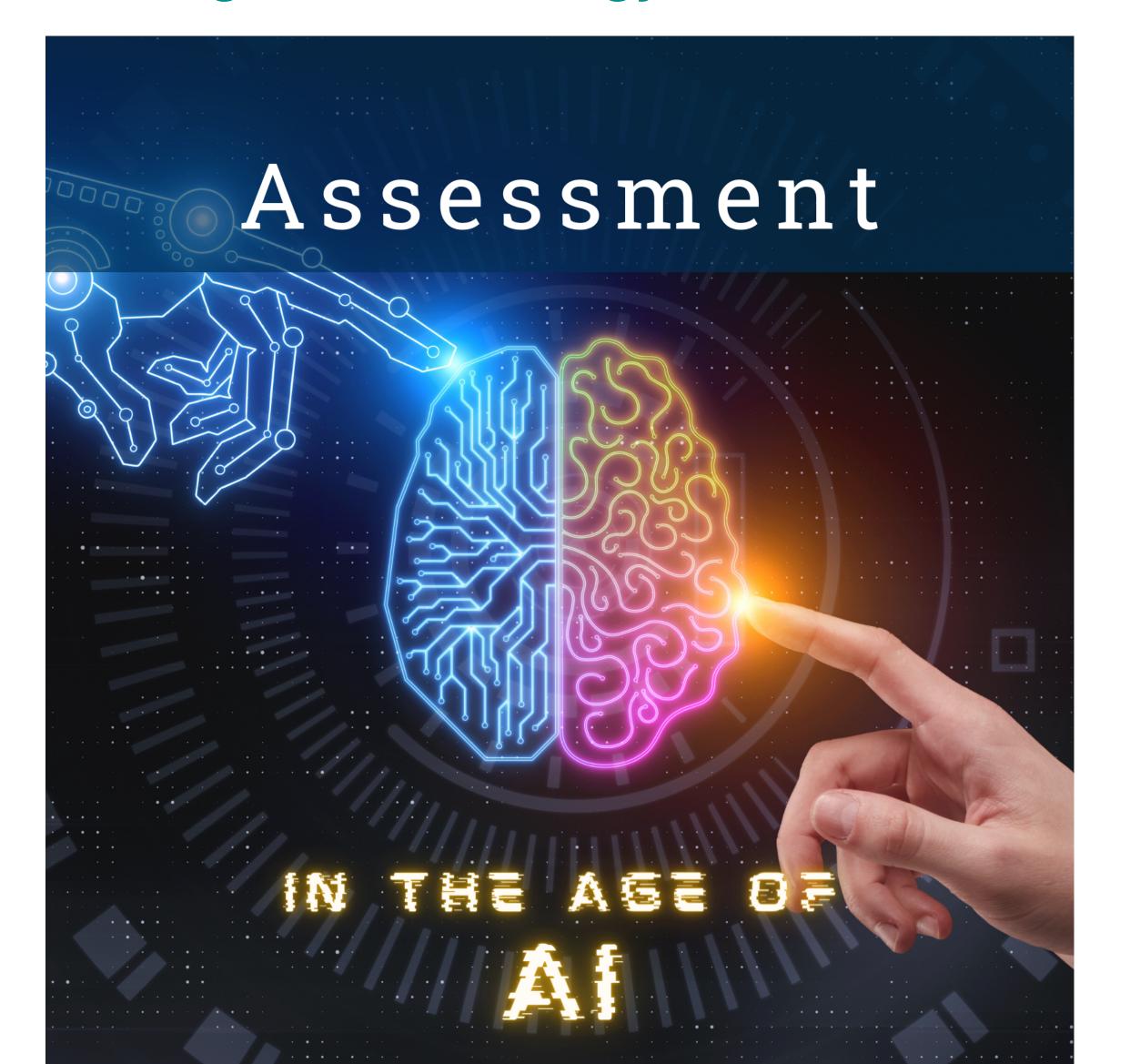
Spring semester saw an explosion of interest in Generative AI at higher education institutions around the world. As always, Georgia Tech faculty were ahead of the curve. Some were already investigating how Generative AI tools, such as ChatGPT, could enhance their teaching and incorporating the technology into their Spring courses to transform assignments, create innovative learning materials for students, and even generate unique experiences to personalize student learning.

As part of CTL's workshop series "Teaching and Learning in an Age of Artificial Intelligence," this workshop, Transforming Teaching and Learning with ChatGPT, showcased several examples of how faculty leveraged ChatGPT and other Al applications in their teaching. The session not only provided a platform for faculty to share their Al-driven pedagogy but also provided opportunities for participants to collaborate with their colleagues across the campus to create and share their own ideas on how Al technologies can be used to expand teaching approaches and transform student learning.

Response to this workshop was astonishingly high. The room reached capacity in record time with 70 faculty attending the in-person session. As a result of the high interest, we held an online encore session in May, with another 110 faculty in attendance.

A total of 180 participants attended either the inperson workshop or the online encore session and rated its overall effectiveness 4.6 / 5.00 with 5 being excellent.

### **Teaching with Technology Summer Institute**



The quick evolution of generative AI challenged faculty to rethink traditional forms of assessment. This year's Teaching with Technology Summer Instituted focused on Assessment in the Age of AI and offered faculty an opportunity to explore innovative assessment options made possible by campus technologies. Participants had daily opportunities to redesign components of their assessments using pedagogies that motivate academic honesty and made plans to adapt or invent an assessment using a campus technology introduced in the four-day institute.

By the end of the institute, participants were able to

- Discuss the challenges Al poses to traditional forms of assessment;
- Employ best practices in assessment design;
- Identify campus learning technologies that allow for innovative, authentic assessment of student learning while minimizing grading load;
- Select a technology to use in a course;
- Begin designing an assessment using the selected technology.

To learn more about the Teaching with Technology Summer Institute, please visit <a href="http://ctl.gatech.edu/summerinstitute">http://ctl.gatech.edu/summerinstitute</a>

A total of 55 participants attended the fourday Summer Institute and rated it at a 4.9 / 5.00 in overall effectiveness.



### **Teaching with Technology Partnerships**

Teaching with Technology Partnerships support faculty in effective and innovative uses of technology in teaching and learning. Partners are selected from a pool of faculty applicants who are paired with a member of the CTL's Learning and Technology Initiatives team. Drs. Lauren Barbeau, Vincent Spezzo, and Peter Ariev meet with faculty partners regularly, serving as creative coaches in the development and implementation of projects. During the 2022-2023 cycle, eight faculty fellow groups partnered with CTL to work on their teaching with technology projects.

















#### **Jacqueline Garner**

Scheller College of Business

Partnership Project:

Life, One Miles at a Time: Animated Videos to Teach Finance

#### Mick West

School of Electrical and Computer Engineering

Partnership Project:

Designing a Canvas
Template for the ECE
Capstone Course

#### **Whit Smith**

School of Electrical and Computer Engineering

Partnership Project:

Designing a Canvas
Template for the ECE
Capstone Course

#### **Matthew Hild**

School of History and Sociology

Partnership Project:

Meeting the Georgia
Legislative
Requirements: Creating
Asynchronous, SelfPaced History and
Constitution Courses

#### **Christine Ries**

School of Economics

Partnership Project:

Long Form Interview
Podcasts as Vehicles for
Engagement and
Development of Critical
Thinking Skills

#### **Daniel Dench**

School of Economics

Partnership Project:

Long Form Interview
Podcasts as Vehicles for
Engagement and
Development of Critical
Thinking Skills

#### **Dexter Dean**

College of Sciences-School of Chemistry & Biochemistry

Partnership Project:

Biochemistry Teaching Laboratory (BTL) Simulations

#### **Mary Peek**

College of Sciences-School of Chemistry & Biochemistry

Partnership Project

Biochemistry Teaching Laboratory (BTL) Simulations



### Teaching with Technology Partnerships (cont.)

Teaching with Technology Partnerships support faculty in effective and innovative uses of technology in teaching and learning. Partners are selected from a pool of faculty applicants who are paired with a member of the CTL's Learning and Technology Initiatives team. Drs. Lauren Barbeau, Vincent Spezzo, and Peter Ariev meet with faculty partners regularly, serving as creative coaches in the development and implementation of projects. During the 2022-2023 cycle, eight faculty fellow groups partnered with CTL to work on their teaching with technology projects.



#### **Mike Tinskey**

School of Mechanical Engineering

Partnership Project:

Using Technology to
Bring External Experts
into the Classroom

#### **Tatiana Rudchenko**

Scheller College of Business

Partnership Project:

Canvas Video Quizzing
System and
Asynchronous video's
impact on student wellbeing in MGT 2250 and
MGT 2255 classes via
scaffolding and flexibility

#### **Stephanie Reikes**

College of Sciences-School of Mathematics

Partnership Project:

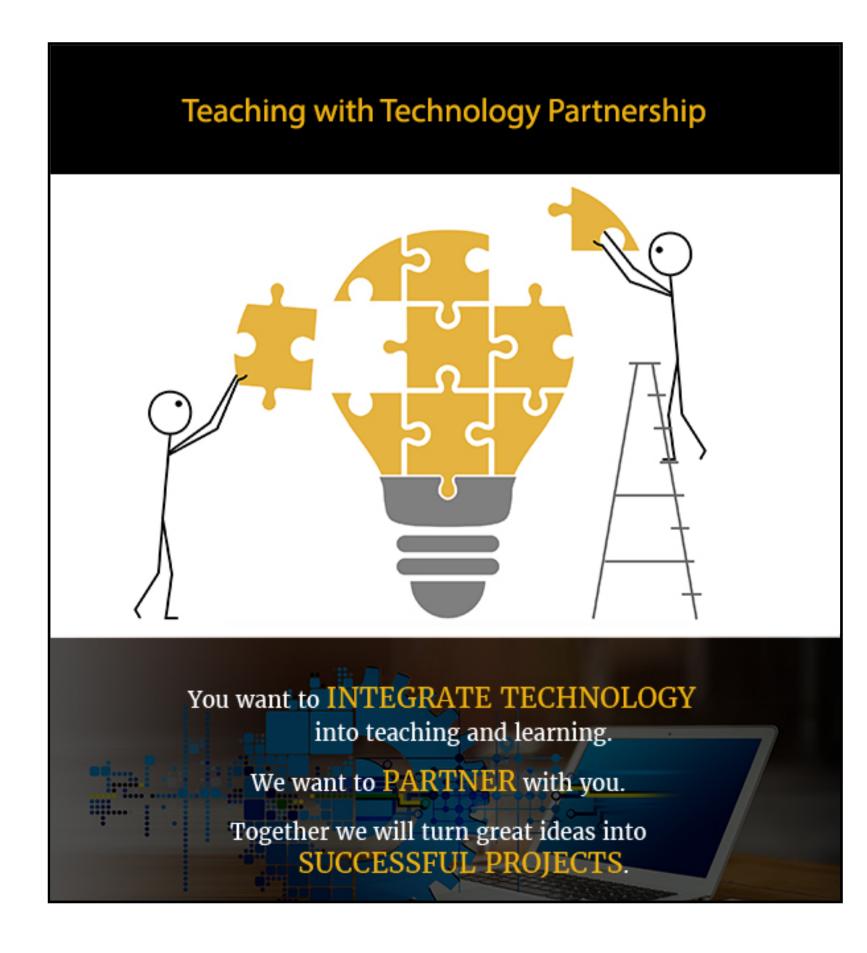
Math Grader Training Videos/Modules for Canvas

#### **Gregory Mayer**

College of Sciences-School of Mathematics

Partnership Project:

Math Grader Training
Videos/Modules for
Canvas



For more information about Teaching with Technology Partnerships, please visit <a href="http://ctl.gatech.edu/ttp">http://ctl.gatech.edu/ttp</a>.



# Scheller PTLF Teaching with Technology Lunch and Learn Series

Based on a survey of faculty teaching interests in their college, the 2022-2024 Scheller Provost Teaching and Learning Fellows identified teaching with technology as a topic they wanted to explore and share with their colleagues. In collaboration with the LTI team, the PTLFs offered three teaching with technology lunch and learn events for faculty in their college:

- Engaging Students with Student Response Systems
- Organizing Canvas for Better Learning Outcomes
- Using Analytics and Item Analysis to Document Teaching for Student Success

Each event paired a PTLF with a LTI team member. The PTFL shared their experiences with the technology as an example of practical use while the LTI expert provided the pedagogical grounding for the workshop. Between 15 and 20 participants attended each session. The Dean sponsored boxed lunches, which encouraged participants to linger and engage in conversation with each other about the workshop content.

These events represent the first in a series of teaching with technology lunch and learns that will continue in the 2023-2024 academic year.



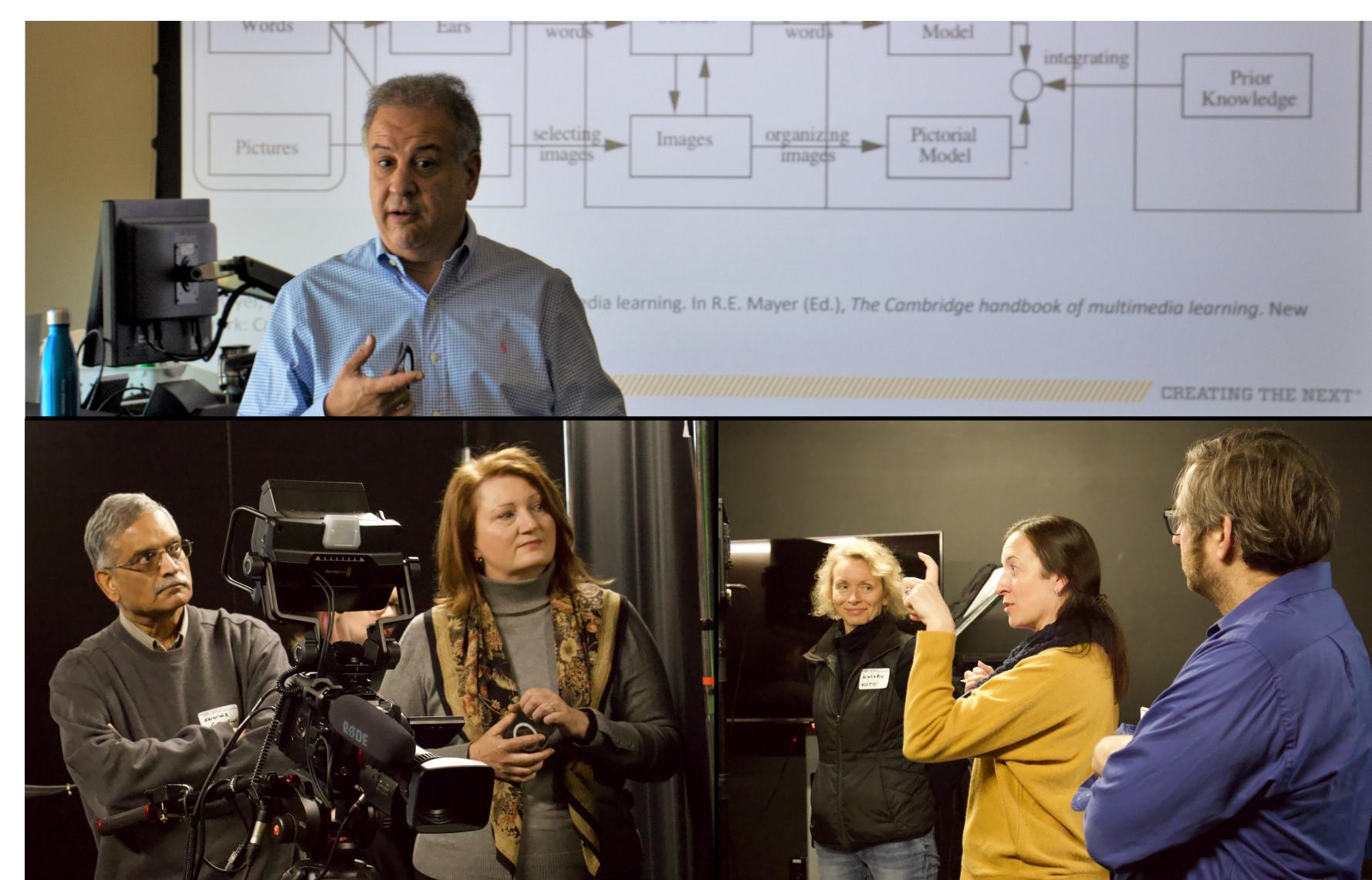
### Teaching Studio Academy: Planning and Creating Instructional Videos

CTL offered, in partnership with the library and multimedia specialists, a two-part workshop series focused on helping GT faculty incorporate videos in their teaching in order to support their students' learning. We offered two workshops, the first focusing on conducting a needs analysis, setting goals and analyzing production style choices, and the second focusing on developing a storyboard for the video, including choosing a topic, connecting with learning objectives and integrating visual elements, instructional activities, and a content structure. Participants completed the workshops in the fall and, in the spring, received individual mentoring from CTL and library specialists to produce their video.

The faculty response has been very positive. There were 17 participants who participated in both workshops, and 12 of those continued with their project development into the spring, representing a high level of innovation and creative uses of existing resources such as the e-glass and green screen studio.

Responses to workshop evaluations were very positive, with an average effectiveness rating of 4.7. Faculty comments focused on the value of having access to multiple resources to help develop their projects and multiple perspectives and ideas offered by the facilitators and various participants.

Several of the projects that faculty are pursuing, moreover, will provide opportunities to collect data on the impact of their videos on student learning and engagement.







Accoun

(6) Dashboar

Courses







**Canvas Course Template** 

Home

Discussions

Modules

Media Gallery

**GT Student** Resources

CIOS

Canvas

Course

**Template** 

A

### Course # | Course Name



→ Start Here

+ Help/Support

Instructor

**Instructor:** [Add Instructor Name & Photo]

Pronouns: [Add your preferred pronouns.]

How to Address Me: [Add information on how you would like students to address you (ex. Dr. Last Name, Professor Last Name).

[Add instructor contact info. It can be helpful to indicate preferred contact modes as well as expected response times.]

TA(s)

TA: [Add TA Name(s) & Photo]

**Pronouns:** [Add your preferred pronouns.]

How to Address Me: [Add information on how you would like students to

Immersive Reader

**■** View Course Stream

☐ View Course Notifications

Coming Up

**View Calendar** 

Nothing for the next week

### **Canvas Course Template**

In collaboration with OIT and GTPE, the LTI team developed a Canvas Course Template that will be made available in fall of 2023 to all instructors in Canvas. The template provides GT branded pages instructors can update with their course materials and offers guidance on best pedagogical practices for Canvas course design, making it easy for all faculty to design effective Canvas sites. Faculty teaching across modalities can use the template to minimize the time spent designing effective Canvas courses while optimizing ease of navigability for students.

Early feedback indicates that faculty find the template easy to use. Based on user feedback on this first template, the LTI team will explore the creation of modality-specific templates.



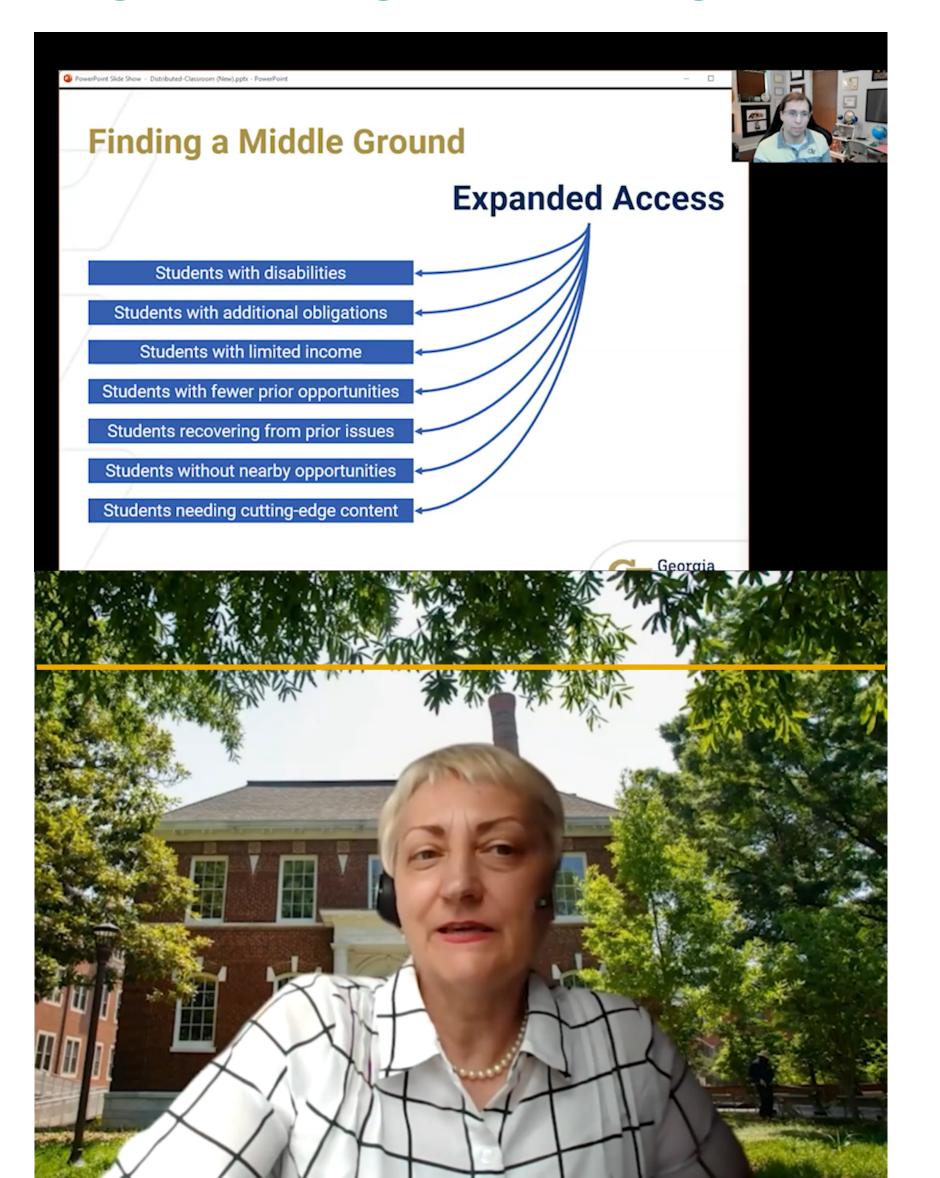


### **Supporting Teaching & Learning at a Distance**

# Celebrating Distance Teaching and Learning Symposium

The Celebrating Distance Teaching and Learning Symposium consisted of a series of panels, discussions, and presentations on the subject of distributed education in its various forms. Whether holding classes in completely virtual environments, utilizing online materials to flip or supplement students' in-class experience, or something in between, faculty have been extending their pedagogy across time and space to reach students where they are in new and exciting ways. Hosted in Fall 22, the Georgia Tech Celebrating Distance Teaching and Learning Symposium brought together 102 participants to celebrate and learn from campus educators who have forged innovative and high-quality practices in the field of distance education.

This year's symposium included an opening Keynote by David Joyner on the Distributed Classroom, an intriguing panel featuring recent award-winning TAs discussing their role in the online classroom environment, a talk from 2022 Winner of the Georgia Tech Teaching Excellence Award for Online Teaching Dr. Michael Evans on Cultivating "Short-distance Relationships" with Students, a series of breakout discussions on various topics facilitated by online and technology experts from across the institution, and closed with a panel on creating and innovating videos for online.





Led by Dr. Vincent Spezzo, this multi-day workshop series explores best practices and pedagogical approaches to transform and adapt course materials and curricula to online platforms. Whether faculty want to extend their reach to students outside the classroom, create a flipped or hybrid classroom experience, teach a class that is fully online, or offer something in between, those attending this studio left with a path to digitalize the different aspects of their courses.

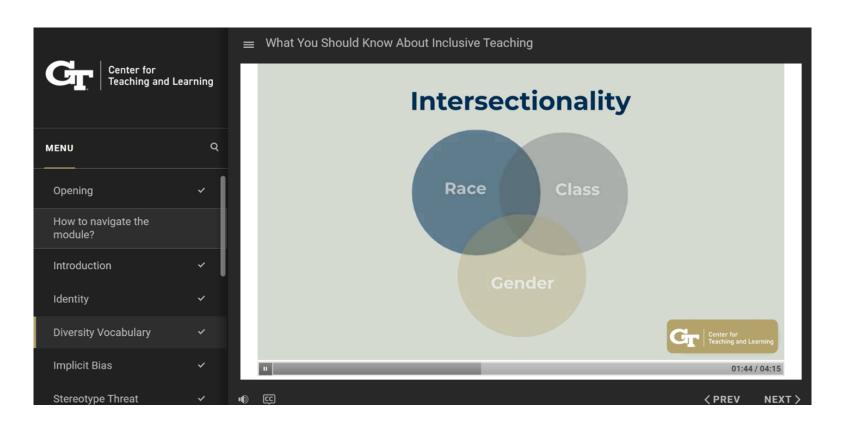
This year's studio had a total of 34 participants across four days, which focused on topics such as learning the basics of online and backwards design, aspects of organization and alignment, creating engaging assessments, developing interactive learning activities, crafting dynamic digital content including videos, forming an online communication plan, accessibility online, and much more.

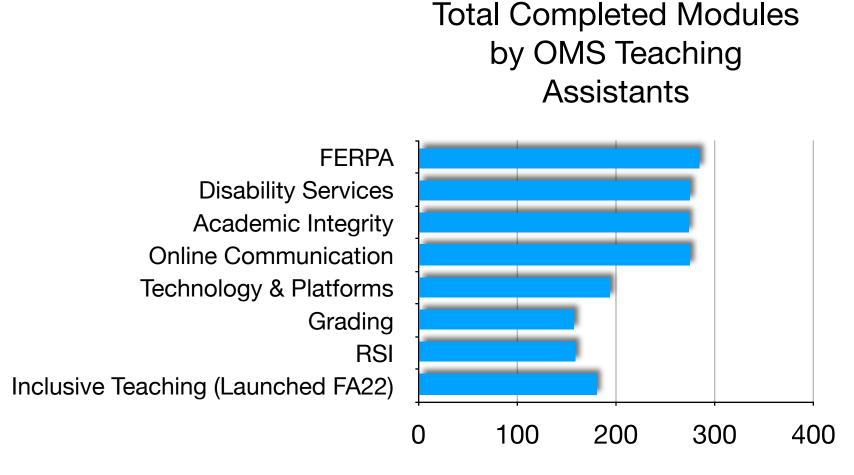


### Georgia Tech OMS TA Training & Development Course

The Online Master of Science (OMS) TA Training and Development course is housed in Canvas for new and existing Teaching Assistants who are teaching in Georgia Tech's Online Master of Science programs. Through a series of asynchronous modules and synchronous sessions, participants are provided with an overall orientation to some of the key elements of their job responsibilities, Georgia Tech policies, and pedagogical skills needed to provide a high-quality online experience for students in the OMS programs.

The training series features modules on what online TAs need to know about FERPA, Disability Services, Academic Integrity, grading, online communication, interacting with students, and information around the technologies and platforms utilized in the OMS programs. During FY 2022-2023, 317 OMS TAs participated in one or more of the eight available modules. TAs were required to pass an evaluation at the end of each module to earn a completion badge. In total, these TAs successfully completed 1799 modules. Additionally, five OMS-focused synchronous events were offered throughout the year and recorded for later viewing; in total, 91 TAs interacted with these sessions.





### A Collaborative Project

The OMS TA Training and Development course was a collaborative project created and refined over multiple semesters. The project was a joint effort of the CTL Learning and Technology team and individuals from the CTL TA Development and Future Faculty team, GT Professional Education, the OIT Digital Learning Team, and GT Language Institute.

The creation of the course involved an in-depth assessment of the training and development needs of OMS Teaching Assistants, review and reconstruction of three existing Online TA Orientation modules to fit the needs of TAs teaching in a fully online environment, and the creation of several new content items such as additional modules and development of synchronous training offerings. While much work has already been completed, more modules and developmental offerings are being planned for future release.



In total, 317 OMS TAs participated in one or more of the eight available training modules.

These TAs successfully completed 1799 modules.



Date	Partner(s)	Event	Attendance
August 19, 2022	GTPE, OIT DLT	Fall TAing in Canvas: An Open Q&A with Campus Experts	28
August 23, 2022	GTPE, OIT DLT	Fall TAing in Canvas: An Open Q&A with Campus Experts	20
October 18, 2022 & November 20, 2022	Library	Teaching Studio Academy: Planning and Creating Instructional Videos	46
October 25, 2022	ITA Liaisons	AMA (Ask Me Anything) with the International TA Liaisons	12
November 7, 2022	GTPE, OIT DLT	2022 Celebrating Distance Teaching and Learning Symposium	102
December 1, 2022	GTPE, OMSCS, OIT DLT	Affordable Degrees at Scale Symposium: Academic Integrity Panel	40
January 12, 2023	GTPE, OIT DLT	Spring TAing in Canvas: An Open Q&A with Campus Experts	19
January 24, 2023	Scheller Provost Teaching and Learning Fellows	Engaging Students with Student Response Systems	20
February 10, 2023	College of Computing Provost Teaching and Learning Fellows	Panel Discussion: What is ChatGPT and How are Georgia Tech Faculty Responding	65
March 14, 2023	Scheller Provost Teaching and Learning Fellows	Teaching with Technology Lunch and Learn: Organizing Canvas for Better Learning Outcomes	16
April 11, 2023	Scheller Provost Teaching and Learning Fellows	Using Analytics and Item Analysis to Document Teaching for Student Success	20
June 26 - 29, 2023	OIT DLT	Teaching with Technology Summer Institute: Assessment in the Age of Al	55
		Total	483

# Learning Technology Campus Partnerships and Outreach

The Learning and Technology team partnered with others in the Center for Teaching and Learning that included the faculty teaching and learning team, as well as the TA development and future faculty team. These collaborations consisted of projects and events that incorporated technologies to enhance teaching and learning.

The team also worked with other campus units to support and promote effective use of learning technologies in different learning environments, such as:

- Georgia Tech Remote and Hybrid Teaching Academy (GTRHTA)
- OIT Digital Learning (DLT)
- Faculty Teaching and Learning Initiatives (FTL)
- Georgia Tech Professional Education (GTPE)
- TA Development and Future Faculty Initiatives (TAFF)
- Georgia Tech Library



A total of 483 participants attended various events by the learning technology team in CTL with its campus partners.



and the confidence necessary to pursue a teaching career. The capstone class in particular gave me the support I needed to feel confident in my role as a graduate student instructor, my first experience teaching my own class. The entire Tech to Teaching course and my experiences as a graduate student instructor helped me enormously in the faculty interview process. I am flourishing in my current role due in large part to what I learned through the Tech to Teaching courses!"

"The Tech to Teaching Program gave me the skills

Dr. Marguerite Matherne
Assistant Teaching Professor
Mechanical & Industrial Engineering
Northeastern University

"As a new assistant professor, I drew heavily upon my Tech to Teaching experience at a time when students are increasingly distracted and unengaged. At the end of my first semester, the course evaluation results were glowing. Although I had conviction about how I ought to teach, I was still shocked at how much the students appreciated the CTL-learned style I brought to the classroom. As we say where I'm from: the proof is in the pudding."



Dr. Aaron Bivens
Assistant Professor
Civil & Environmental Engineering
Louisiana State University

# Future Faculty Initiatives

The Center for Teaching and Learning offers extensive programming, support, and recognition for teaching assistants at the undergraduate, graduate, and postdoctoral levels, as well as pathways for those interested in a faculty career. In addition to courses in teaching and learning, TAs and future faculty can choose from a number of workshops, online training modules, and other opportunities to increase their knowledge of effective pedagogy in the college classroom.

### Teaching Certificate Programs

#### **Tech to Teaching and CIRTL**

The Tech to Teaching certificate program helps prepare Georgia Tech graduate students and postdocs for college teaching positions. Participants develop a thorough understanding of the scholarship of teaching and learning and demonstrate their ability to apply skills in the classroom.

When participants complete the ten learning outcomes through a combination of classes, workshops, and online programming, they earn an Associate Certificate from the Center for the Integration of Research, Teaching, and Learning (CIRTL). Next, they complete a significant teaching experience, most often through co-teaching a course or serving as instructor of record, and engage with future faculty peers in a weekly learning community seminar.

In 2022-2023, Tech to Teaching enrolled 325 participants. This year, 69 participants earned the CIRTL Associate Certificate and 57 participants completed the full Tech to Teaching certificate, a 20% increase from the previous year.

#### **Courses**

As one route to earning the Tech to Teaching certificate, courses offer an in-depth study of learning theory to prepare future faculty for teaching

positions in higher education. This year, 142 graduate students completed one of the three Tech to Teaching courses, a 15% increase from the previous year.

- CETL 8713 Fundamentals in Teaching and Learning
- CETL 8717 Course Design
- CETL 8718 Teaching Practicum

#### **Teaching Workshop Series**

The 9-part teaching workshop series provides graduate students and postdocs the opportunity to explore central tenets of effective pedagogy. A total of 188 participants attended these workshops over the course of the year. This year the workshops returned to a fully inperson delivery mode, receiving an average rating of 4.5 out of 5.0.

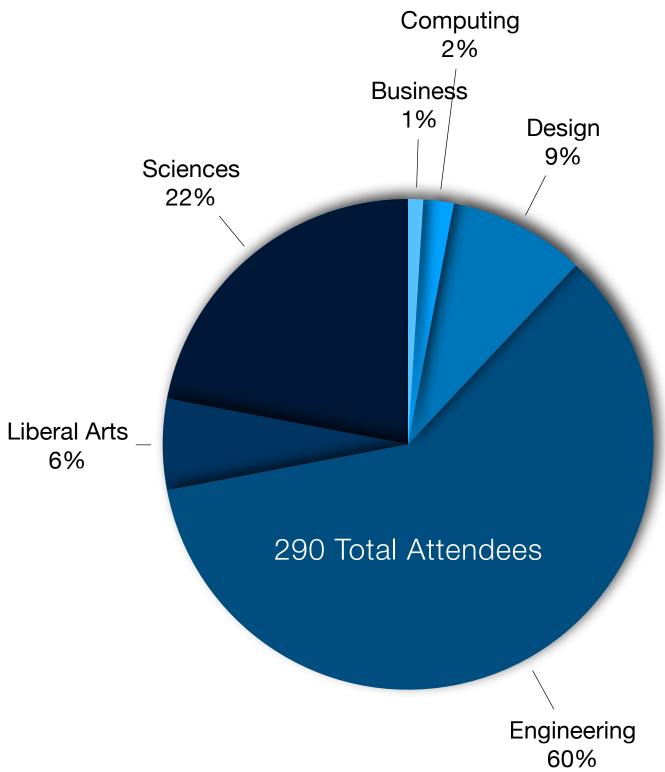
#### **Classroom Observations**

Feedback on instructional practices helps novice instructors identify strengths in their emerging pedagogy and opportunities for improvement. In the capstone experience, CTL representatives observe and record live lessons, and provide written feedback. After an observation, participants are encouraged to meet with a CTL representative to discuss topics including learning goals and assessment, instructional strategies, classroom climate, and presentation skills. Each participant in the teaching capstone receives two classroom observations, and other graduate students and postdocs can request individual observations. In 2022-2023, CTL faculty and Graduate Teaching Fellows conducted 132 classroom observations, a 10% increase over the previous year.

57 Tech to Teaching Certificates and 69 CIRTL Associate-Level Certificates were awarded to graduate students and postdoctoral scholars during FY2022—2023.

## **Future Faculty Initiatives**

### Workshop Attendance by College



#### **Individual Consultations**

Future faculty entering the academic job market receive additional support through individual consultations. CTL provided individual consultations to 133 graduate students and postdocs about the academic job search, an increase of 29% over the previous year.

Academic Career Support

#### **Future Faculty Job Search Academy**

CTL typically offers a series of workshops for graduate students and postdocs to prepare them for all aspects of the faculty hiring process. This year, CTL brought the FFJSA back to a face-to-face format and augmented the interactive workshops with a new Canvas course featuring reading and video resources. The fall Academy introduced academic job searching and crafting an effective job search packet, including the CV, cover letter, and teaching, research and diversity statements. The spring series focused on conducting successful interviews, presenting dynamic job talks, and managing professional online presence.

The Future Faculty Job Search Academy workshops were attended attended by 177 graduate students and postdocs. Of these participants, a record high 97% rated the Academy as "very good" or "excellent".

#### **AGEP**

The purpose of the National Science Foundation's Alliances for Graduate Education and the Professoriate (AGEP) program is to increase the number of underrepresented minority (URM) faculty in STEM disciplines and education research. The AGEP alliance connecting Georgia Tech, Rice University, Florida A&M University, and the University of Colorado at Colorado Springs is developing and implementing an innovative model that increases the number of URM engineering postdoctoral scholars who transition successfully into tenure-track faculty positions. CTL's Dr. Tammy McCoy provides academic enrichment to the 13 alliance participants, covering teaching and learning in higher education, course design, and practical teaching experience.

Postdoctoral Development

#### **Postdoc Course**

Each spring, CTL offers a non-credit course on teaching for postdocs. This year, the course was redesigned to fully align with the Tech to Teaching outcomes and 35 postdocs completed the course, an increase of 52% over the previous year. Returning to a fully in-person format for the Spring 2023 semester, six postdocs completed the course.

290 graduate students and postdoctoral scholars participated in career development and teaching workshops during FY2022—2023.

95% of participants gave the workshops an overall rating of very good or excellent.



"Participating in the Future Faculty Job Search Academy was instrumental in helping me find my dream job. In the Academy, I learned how to craft an excellent application packet. In particular, I believe devoting time to the teaching statement and the diversity statement really made a difference. Additionally, I had the luck to have the CTL team review my documents and ensure that everything was spotless. Finally, I was able to prepare for the interviews and craft my answers beforehand by attending the Academy's mock interviews. The experience was unique! Thank you CTL team!"

—Ana Maria Estrada Gomez, Assistant Professor, Industrial Engineering, Purdue University

# Center for Teaching and Learning

### TA Development & Future Faculty Initiatives



### **TA Development Programs**

### New! TA Development Academy

Undergraduate and graduate TAs are valuable members of Tech's instructional team. To provide new TAs with a foundation in important policies and procedures, CTL offers a series of asynchronous interactive modules. These modules, which introduce new TAs to FERPA, academic integrity, disability services, communication skills, and efficient grading, help new TAs to prepare for their positions from anywhere prior to the start of classes. A total of 689 new TAs completed the asynchronous training.

CTL augmented this asynchronous training with the introduction of TA Development Academy, an optional in-person teaching conference designed as a professional development opportunity. The 134 TAs in attendance developed their first day of class introductions, practiced fielding challenging questions, and stretched their skills in creating engaging classroom lessons.

The Center for Teaching and Learning partnered with the Online Masters programs to produce a series of synchronous and asynchronous training materials for TAs in the OMS programs. A total of 317 online TAs were trained through these resources.

### Residential TA Orientation Programming

#### Required asynchronous TA Training modules:

- Module 1: What You Should Know About FERPA
- Module 2: What You Should Know About Disability Services
- Module 3: What You Should Know About Academic Integrity
- Module 4: What you Should Know About Online Communication
- Module 5: What you Should Know About Grading
- NEW! Module 6: What you Should Know About Inclusive Teaching

#### Optional TA Training module:

Module 7: Canvas Tips for TAs

#### TA Development Academy topics

- TAing at Tech
- Supporting Students' Well-being
- · Setting the Scene: Lab, Recitation & Office Hours
- Healthy Communication Skills
- Grading Hacks
- International TA Orientation

689 residential teaching assistants completed the online training modules during FY2022—2023.

317 online teaching assistants completed the orientation modules during FY2022—2023.



### **TA Development Programs**

CTL 2000, 2001, and 8000

In addition to TA Orientation, new TAs from certain departments develop teaching, tutoring, and other relevant skills through CETL 2000 and 2001 for undergraduate TAs and CETL 8000 and 8801 for graduate TAs. This year, 328 graduate students completed CETL 8000/8801 and 324 undergraduate students completed CETL 2000/2001 a 9% and 13% increase, respectively.

### International Teaching Assistant Program

The International TA Program helps international graduate students acclimate to teaching in the U.S. while building a strengths-based community that integrates language, culture, learning, and belonging. The International TA (ITA) program offers a two-credit course:

CETL 8802: Special Topics in ITA Development, with enrollment of 24 students in this academic year. The course was delivered on campus both fall and spring. After ITAs completed the course, Sarah Kegley (program manager) provides a follow-up observation of ITAs in their TA roles.

In addition, a second year of the PEGS funding supported the ITA Liaisons fellows, a CTL initiative which offers a leadership position for individual ITAs. Ten liaisons in Fall 2022, and ten in spring 2023 were funded through this program.

Schools/programs represented were Aerospace Engineering, Electrical and ComputerEngineering, Biomedical Engineering, Industrial and Systems Engineering, Biochemistry, Machine Learning, Physics, City and Regional Planning, Computer Science, and Public Policy.

### **Institute-Wide Partnerships and Outreach**

### Preparing Future Faculty Partnerships

Although many graduate students and postdocs learn about CTL's future faculty programming through CTL marketing and word of mouth, a growing number of schools have established partnerships with CTL to formalize and encourage their students' participation. These Preparing Future Faculty Partnerships created a consistent flow of students from participating schools, which demonstrates those schools' commitment to fully preparing their graduate students and postdocs for careers in the academy.

#### **Civil and Environmental Engineering (CEE)**

Each year, CEE select a cohort of three to five graduate students to join the Preparing Future Faculty program. Selected participants complete the Tech to Teaching program and receive a monetary stipend from CEE to support their ongoing professional development.

#### **Economics**

Ph.D. students in the School of Economics are required to participate in the Tech to Teaching program as part of their graduate training. Incoming students complete the Tech to Teaching courses in their first or second year and can become eligible to teach as instructor of record beginning in their third year.

#### **Biomedical Engineering (BMED)**

The course BMED 7004 Teaching & Research Practicum I satisfies four of the foundation level outcomes in Tech to Teaching. Participants from this field can use any pathway to satisfy the remaining outcomes and then participate in the teaching capstone.

#### **Industrial & Systems Engineering (ISyE)**

ISYE students can enroll in ISYE 8802 Fundamentals of Teaching & Learning to satisfy the foundation level outcomes. Future faculty with an ISYE teaching assignment can then enroll in ISYE 8811 to satisfy the teaching capstone. Participants receive observation and feedback from CTL faculty.

#### Psychology, Mechanical Engineering, Materials Science & Engineering

These schools offer a teaching practicum course that students may complete instead of the CTL teaching capstone. Students in these practicum courses still participate in the two classroom observations and submit the capstone portfolio to satisfy the capstone learning outcomes.

#### **LEAD (Leadership Education and Development) Program**

LEAD hires co-instructors for leadership sections of GT 1000 and for the Public Policy section of PUBP 4140 Foundation of Leadership for PUBP students. Preference for these teaching assignments is given to Tech to Teaching members. The teaching assignment can be used for the capstone requirement.





### **Institute-Wide Partnerships and Outreach**

Date	Partner	Event	Attendance
January 2023	CHEM	Communication Essentials for Scientists Workshop (CHEM 8002 class)	33
February 2022	Computing	Advanced Grading Workshop, CETL 8000 CoC	23
April 2023		TA and Future Faculty Awards Day	123
Spring 2023	Association of Chemical Engineering Graduate Students	Time and Stress Management for Graduate Students	40
Spring 2023	EDU398 Seminar on College Teaching, University of California, Davis	Crafting a Teaching Statement	25
Spring 2023	Black Graduate Student Association (BGSA)	Your Opportunities as a Graduate Student, 2023 Georgia Tech Graduate Technical Symposium [GT] <sup>2</sup>	25
Spring 2023	ISyE	Writing Learning Outcomes	5
Spring 2023	ISyE	Creating Assessments	5
June 2022	Computing	Planning Recitations and Worksheets	100
November 2022	Computing	Student Well-Being	100
October 2023	Southern Regional Education Board (SREB)	Presenting Research Effectively, 2022 SREB Institute on Teaching and Mentoring	60
October 2023	ME	CTL/MEGA Post-Doc/Faculty Application Prep Info Session	20
September 2023	ISyE	Teaching & Diversity Statements, ISYE 881-STA Preparing for a Successful Academic Career	8
		Total	567



567 participants engaged in TA Development and Future Faculty partnership and outreach events.



### **Graduate Student Ambassador Programs**

### Graduate Teaching Fellows Program

The Graduate Teaching Fellows (GTF) program launched in summer 2018. Designed on the hub-and-spoke model developed for faculty outreach programs, the GTFs consist of a cohort of 10 advanced graduate students who serve as peer leaders for teaching development. The Fellows designed and facilitated TA Development Academy, conducted classroom observations and feedback sessions, and independently created individual projects to further support graduate student teaching developing in their home academic unit.





Pictured with Buzz: ITA Liaisons Genaro Soto Valle, Tinomutenda Chikate, and Ximena Pizarro Bore

### Graduate Teaching Fellows 2022 - 2023

Declan Abernethy, History and Sociology
Paloma Casteleiro Costa, Electrical and Computer Engineering
Ryan Ellis, Economics
Nischita Kaza, Electrical and Computer Engineering
Theodore LaGrow, Electrical and Computer Engineering
Maughan Lloyd, Psychology
Lynnae Stypulkowski, Civil and Environmental Engineering
Jelly Vanderwoude, Biological Sciences
Boni Yraguen, Mechanical Engineering



In its third year, International TA Liaisons for CTL, supported by a PEGS grant, brought together 11 qualified ITAs from five schools to design and create materials that would support the development of incoming ITAs. Each ITA liaison completed CETL 8802, Special Topics in ITA Development, and successfully served as a TA in his or her respective school. The program is facilitated by Sarah Kegley, ITA program manager in CTL. As a leadership team of graduate students, ITA Liaisons for CTL is an extension of the hub-and-spoke model that CTL created with the Provost Teaching & Learning Fellows (PTLFs) and the Graduate Teaching Fellows (GTFs).





#### International TA Liaisons FY2022 - 2023

Chang Ding, Earth and Atmospheric Sciences
Sijian Tan, Computational Science Engineering
Zhaoxin Li, Aerospace Engineering
Genaro Soto Valle, Electrical and Computer Engineering
Ximena Pizarro Bore, Public Policy
Nadya Pramaputri, City and Regional Planning
Abdulaziz Qwbaiaban, Electrical and Computer Engineering
Sourbabh Choudhary, Industrial and Systems Engineering
Tinomutenda Chikate, Public Policy/ Cybersecurity and Policy
Yiming Chen, Electrical and Computer Engineering
Selim Tekin, Computer Science



### **TA & Future Faculty Awards**

CTL celebrates the contributions to teaching excellence at Georgia Tech made by our graduate and undergraduate teaching assistants. This year CTL recognized graduate and undergraduate TA Award winners, Tech to Teaching and CIRTL certificate recipients, Thank a Teacher recipients, and TA Fellows. This year's ceremony moved to the new Exhibition Hall Ballrooms, which allowed the program to expand attendance to 123 attendees plus 22 friends and family who viewed the live-stream presentation from around the globe.



#### TA Award Process and Winners

The annual awards process opens in January. CTL requests all schools/departments conduct an internal competition to produce one person per each category: (1) Graduate Student Instructor of the Year; (2) Graduate Teaching Assistant of the Year; (3) Undergraduate Teaching Assistant of the Year; (4) Online Head Teaching Assistant of the Year; and, (5) Online Teaching Assistant of the Year. Each school-level winner is invited to submit an application to participate in the institute-wide TA of the Year competition. Each of the three institute-wide winners in each category received an award of \$500.

#### **Undergraduate TA of the Year**

Bret Hendrics	Mathematics
Grant Hollosi	Computer Science
Maeve Janecka	Biology
<b>Graduate TA of the Year</b>	
Santana Afton	Mathematics
Markace Rainey	Chemistry & Biochemistry
Leo Wood	Physics
Graduate Student Instructor of the Year	
James Anderson	Mathematics
Yasser El Masri	Architecture
Meaghan McSorley	City & Regional Planning
Online TA of the Year	
Adavya Bhutani	School of Computer Instruction
Caroline Miller	Biomedical Engineering
TJ LaGrow	Computer Science
Online Head TA of the Year	
Ryan Ellis	Economics
Aleksandr Kalenchits	Division of Computer Instruction
Abdulaziz Qwbaiban	Electrical & Computer Engineering



### CTL Online Resources



**RESOURCES JUNE 12, 2023** 

## Summer Reading Recommendations from CTL

Summer is a classic time to catch up on some reading. It is also the perfect time to explore new ideas about teaching! I asked my colleagues in the Center for Teaching and Learning...



CAMPUS VOICES / QUICK TEACHING TIPS / TEACHING TIPS

DECEMBER 1, 2022

#### Bringing Closure to the Semester

The end of the semester is marked by institutional rituals that include final instructional days, final projects, and final exams. It's easy to get caught up in the stress of covering content, grading student...

## On Teaching and Learning @ Georgia Tech: CTL News and Resources Blog

On Teaching & Learning @ Georgia Tech, CTL's blog, features a range of articles from CTL staff and various contributors, with content such as teaching tips, inclusive teaching, reviews of workshops, book suggestions, and many more. Currently, users can access over 150 articles. During FY2022-2023, over 25,000 unique users accessed the blog with more than 52,000 page views.



Visit the blog



More than **25,000** users and **52,000** page views of the CTL blog were recorded during FY2022-2023.



### New Online Faculty Resources: Course Design and Innovative Teaching with Sustainability and the United Nations Sustainable Development Goals (SDGs)

In January 2023, CTL added a new position to its Faculty Teaching and Learning team: Assistant Director, Faculty Development for Sustainability Education Initiatives. This position resulted from years of collaboration between CTL and the Center for Serve-Learn-Sustain as well as new initiatives to expand sustainability education opportunities at Georgia Tech associated with Sustainability Next's Education Plan, an outcome of the Institute Strategic Plan. Look for these new faculty resource pages on the CTL website: Course Design or Re-Design with the UN SDGs, and Innovative Teaching with Sustainability and the SDGs.



### CTL Online Resources



At Georgia Tech, our students are our top priority. We measure our success by their achievements and by the positive impact they have on the lives of others. Our faculty play an essential role in their growth, well-being, and development. The Institute is committed to providing you with the resources and tools you need to create an inclusive learning environment where every student can thrive and contribute to human progress.

Ángel Cabrera
President, Georgia Institute of Technology





#### Welcome Letter from Georgia Tech's Provost

#### Pear Colleagues:

G reetings! If you are new to our academic community, welcome. We are so glad you are here. And to those returning for another academic year, welcome back!

At Georgia Tech, we are working hard to deliver on the commitment and vision laid out in our Institute strategic plan. As a leading technological and research university committed to progress and service, our mission is developing exceptional leaders from all backgrounds, ready to produce novel ideas and create solutions that change people's lives for the better. At the heart of it all, for each of us, are our students. They are our top priority, and the reason we are here.

Our admissions process cultivates a student body with a demonstrated commitment to excellence and public service, and we are proud to be their institution of choice. As faculty, our job is not only to ensure they have the skill set and tool set to solve problems – but also to ensure they know how to seek out the most impactful problems to solve. Our graduates are globally minded, cross-culturally competent leaders who understand that the best solutions are those developed by and for all people.

These are qualities and skills nurtured in an inclusive environment of holistic learning,
where the gifts and perspectives of all students are valued and developed. This kind of
environment doesn't just happen; it must be intentionally cultivated. As faculty, we have a responsibility to our students and
remarkable opportunities to nurture their well-being, to value their diverse perspectives, and to empower them to learn, discover

I encourage you to check out the Academic Well-Being Project (academicwellbeing.ctl.gatech.edu) as well. This site is a place where faculty across all Colleges and disciplines can find and share best practices for academic well-being in large and small classes, studios, and labs. I hope you will take a moment to explore what your fellow faculty members are doing to create a healthy

and try new things. We tend to think of this as the result of the things we do in the classroom over hours, days, and weeks - but it

I look forward to this year. Thank you for all you do for our students and this community.

Sincerely,



#### Teaching at Georgia Tech A Guidebook for Faculty, Instructors, and Teaching Assistants



Every year, CTL produces a guidebook for instructors. Due to the pandemic, the printed version of the 15th edition was not produced this year. However, an interactive, electronic version of the Guidebook was made available to participants in New Faculty Orientation and part-time faculty at the New Faculty Welcome Event in fall. Instructors of CETL 8000, a TA development course, also use the guidebook as a resource in their classes. The online version of the guidebook is highly interactive with numerous links to additional information and relevant offices. This fully downloadable version of the guidebook also works on tablets and mobile devices.

Access the Guidebook Online

### Inclusive Teaching Strategies

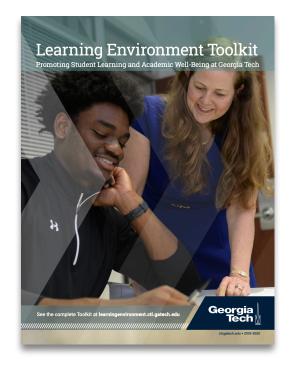
A sense of belonging in relationship to underrepresented students is particularly important since research shows that women, students of color, first-generation students, and economically disadvantaged students are more likely to experience uncertainty about their belonging and potential than majority students. Thus, creating a learning environment that supports all students' need for belonging will foster a student's sense of well-being.



#### Inclusive teaching strategies include

- Learning students' names; using name tents.
- Providing opportunities for students to

## Learning Environment Toolkit, 2nd Edition Promoting Student Learning and Academic Well-Being at Georgia Tech



A second edition of the Learning Environment Toolkit booklet was created during spring term 2020. The new version of the booklet contains six new pages dedicated to student academic well-being. Grounded in self-determination theory, the new section provides numerous teaching strategies and course design ideas to facilitate a student's need for autonomy, competence, and belongingness. When satisfied, these basic needs contribute to student motivation and a sense of well-being. The booklet also contains an 18-page section on student perceptions of teaching effectiveness and how those perceptions align with Tech's Course Instructor Opinion Survey (CIOS).

Access the Toolkit Online

# Center for Teaching and Learning

- Facilitating Group Discussions A resource for preparing and facilitating engaging, active discussions any course.
- Dealing with the Unexpected Practical strategies for classroom challenges such as canceled classes, distressed students, "hot" discussion moments, and traumatic events.
- Connecting Across Generations Advice for understanding and working with this generation of students.
- Grading and Assessing Student Learning A comprehensive resource on anything and everything related to grading and assessment at the collegiate level.
- Gathering and Responding to Feedback about Teaching A compendium of strategies for collecting and using student feedback on teaching, including short in-class assessments and facilitator-led focus groups.
- 6. Teaching with Technology A set of blog posts from CTL faculty on leveraging technology in the classroom to engage students.
- Learning Environment Toolkit An extensive online resource to support instructor awareness of the learning environment and its significance in guiding teaching and learning. (PDF version)

#### Developing as a Teaching Professional

- Using Individual Development Plans in Mentoring A tool that can be used to chart a personal plan to reach a career goal as well as a mentoring strategy.
- Engaging with CTL CTL faculty are available to observe a class meeting, conduct a small group discussion with your students, and consult with you individually on your development as an instructor.
- CTL Events and Ongoing Groups CTL offers a variety of events, workshops, and faculty groups that focus on understating and improving teaching and learning.
- Growing as a Future Faculty Member or Teaching Assistant Events offered through the Tea

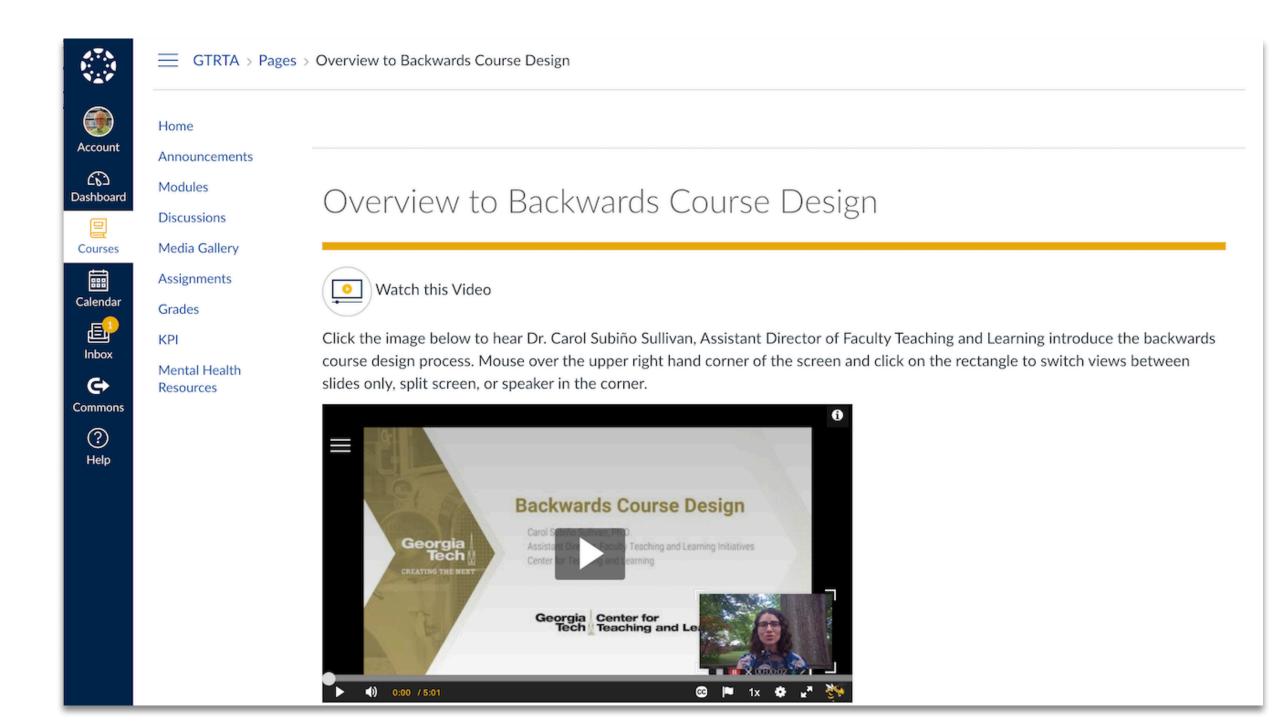


#### Teaching and Learning Resources

Teaching and learning at Georgia Tech is an exciting endeavor core to the mission of the Institute. This section of the CTL website provides quick links to important policies, practices, offices and campus support structures as well as a variety of resources created by the Center for Teaching and Learning to support instructors in the pursuit of excellent teaching. Resources cover different aspects of effective courses, engaging students, and growing as a teaching professional.



### CTL Online Resources



#### GT Remote and Hybrid Teaching Academy

Georgia Tech launched the GT Remote and Hybrid Teaching Academy (GTRHTA) in order to support faculty and TAs as they shifted to remote and hybrid delivery of their courses during the pandemic. The Academy introduced the fundamental pedagogical and technological skills necessary to promote student learning in these modes, and it highlighted best practices that faculty and TAs could use as they considered how best to achieve course goals.

Multiple Georgia Tech units partnered to design and implement GTRHTA. As a result, faculty and TAs were able to select from an array of asynchronous and synchronous sessions and web resources to meet their needs. Contributors to GTRHTA included the Center for Teaching and Learning, Georgia Tech Professional Education, the OIT Digital Learning Team, the Center for 21st Century Universities, Professional Education, the Library, the Center for Inclusive Design and Innovation, CEISMC, and the Summer Session unit of the Office of Undergraduate Education.





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