

# THE INSTITUTE FOR LEARNING AND TEACHING

**COLORADO STATE UNIVERSITY** 

tilt.colostate.edu

# **OUR MISSION**

The Institute for Learning and Teaching (TILT) at Colorado State University (CSU) promotes teaching and learning that enhances student experiences in and out of the classroom. TILT supports the educational mission of CSU and enriches the learning experiences of its students by partnering with members of the university community to help them become more effective teachers and learners.

## **OUR VISION**

TILT aspires to create a campus community that embraces research on teaching and learning, advances evidence-based learning and teaching practices, and creates learning environments in which all students and instructors can excel.

## **CORE ACTIVITIES**

To achieve our mission and vision, we focus our work on faculty and graduate student development and undergraduate student engagement in learning, scholarships and fellowships, and research and artistry.



# **TILT Staff**

#### **TILT Welcomes New Executive Director**

Dr. Sue Doe joined TILT as the organization's third Executive Director on May 3rd, 2023.

For more than 25 years, Sue has served CSU in a variety of roles, most recently as Chair of the Faculty Council. She has held several leadership roles in the English Department including Director of Composition, Assistant Chair, Director of the gtPathways Writing Integration (in close collaboration with TILT), and Associate Director of the Writing Center and Writing Across the Curriculum. Sue is a HERS Fellow and a Faculty Institute for Inclusive Excellence Fellow. She received the College of Liberal Arts Excellence in Teaching Award, the University Cermak Award for Graduate Advising, and the Harry Rosenberg Award for Service.

Dr. Doe has partnered with TILT over the years on various teaching and learning projects and has demonstrated her strong commitment to teaching excellence. Welcome, Dr. Doe!

#### **Operations**

**Barb Houser** 

Operations Manager

Dean Klinkerman

Communications Manager

**Nolan Smith** 

Systems Admin & Application Developer

**Adam Stark** 

Fiscal and Budget Manager

**Assessment** 

Rebekah LeMahieu

Associate Director of Assessment

**Barb Maynard** 

Learning Analyst

Office for Scholarship and Fellowship Advising

**Mary Swanson** 

**Program Director** 

Eliz Hale

**Program Coordinator** 

**Academic Affairs** 

**Allison Penfield** 

Associate Director for Student Success

Joseph Brown

Academic Integrity Program Director

Stacey Clark

Learning Assistant Program Coordinator

Jennifer Roche

Learning Assistant Program Coordinator

Ricky Guzman

**Tutoring Program Coordinator** 

Office for Undergraduate
Research and Artistry (OURA)

Louise Allen

Director of Student Engagement

Courtney Ngai

Associate Director of OURA

Jenniffer Riley

OURA Lab Program Coordinator

**Danyel Addes** 

Community Engaged Learning Program Coordinator

Instructional Innovation and

Engagement

Katy Little

Associate Director for Faculty Success

Karen Falkenberg

Director of Teaching Excellence

Tonya Buchan

Senior Faculty Developer

**Chris Geanious** 

Senior Instructional Designer

Jen Todd

Senior Faculty Developer

**Justin Switzer** 

Senior Instructional Designer

Kristi Ouimet

Instructional Designer

Stan Kruse

Learning Technology and Analytics Program Manager

**Andy Swanson** 

**Accessibility Specialist** 

# PEDAGOGICAL CONTENT KNOWLEDGE INCLUSIVE PEDAGOGY FEEDBACK & ASSESSMENT INSTRUCTIONAL STRATEGIES

# See TEF featured in the CSU Source!

## **Teaching Effectiveness Framework**

The <u>Teaching Effectiveness Framework</u> (TEF) provides instructors with a set of pedagogical competencies to help focus their developing teaching practice. The TEF is comprised of seven essential, interrelated domains of effective teaching practice, grounded in the scholarship of teaching and learning. Faculty are encouraged to focus their teaching development efforts in one domain at a time and to use the TEF as a tool to demonstrate their teaching effectiveness for annual review and promotion and tenure (P&T). All faculty professional development offered by TILT is consistent with the domains of the framework.

During Summer 2022 - Spring 2023, TILT instructional designers redesigned the TEF self-assessment rubrics and evidence-based teaching practice list to improve ease of use and accessibility, redesigned the five-year recommended P&T process document as it pertains to teaching, collaborated with Fish, Wildlife and Conservation Biology to simplify the recommended goal-setting process for the inclusion of evidence of teaching excellence in annual review, and added a goal-setting bank for teaching with example goals for annual review.

#### How is the TEF used at CSU?

In Spring 2023, TILT surveyed department heads and chairs about how the TEF was used in their departments. We received 30 responses, representing about 47% of departments.

# Annual Review & Goal Setting

27 departments have faculty who are using the TEF for annual review and goal setting

# Departmental Processes

The TEF has been formally incorporated into the department code, annual review or promotion & tenure processes of 16 departments

# Supporting CCA Faculty

7 chairs and heads specifically use the TEF for annual review and promotion of Contract, Continuing, and Adjunct (CCA) faculty in their departments



"The Teaching Effectiveness Framework gave me a straightforward tool to use to structure my application materials [for my tenure application] ... The TILT resources were easy to digest, understand, and apply, and I believe the teaching portion of my tenure application would have been less coherent and successful had I tried to put it together in the absence of the TEF."

- Dr. Ellison Carter, newly tenured faculty in Civil Engineering



Diego Krapf, Professor of Electrical and Computer Engineering, used the TEF to make modifications to his course for Spring 2022. He broke two major exams into six small, low-stakes exams and incorporated more opportunities for active learning into his instruction. When he compared his students' grades from Spring 2022 to the previous two spring semesters, he found that the fail rate (students who got a D or F) was cut by about half, going from 13% to 7%.

- CSU Source

## **Teaching Effectiveness Initiative Program**

In Fall 2021, TILT launched the <u>Teaching Effectiveness Initiative Program</u> to recognize faculty invested in growing their teaching practice. The TEI Program provides a structure to engage in developing teaching effectiveness through implementation, self-reflection, and growth, grounded in the evidence-based teaching practices of the <u>CSU Teaching Effectiveness Framework</u> (TEF). TEI Program participants can earn a Certificate of Achievement in each of the seven domains of the TEF upon completion of professional development experiences.

#### Summer 2022 - Spring 2023 TEI Program Highlights



Unique faculty participants



Growth in # of certificates earned from SP22 to SP23

# **Classroom Climate**

TEF domain with highest number of certificates earned (8)



One faculty member has earned certificates in 6 out of 7 domains

## Progress Tracking

TILT developed a faculty dashboard for faculty to self-monitor their progress



TEI was featured in CSU Source



"[The TEI] has been particularly helpful to me as I'm looking towards putting together my promotion packet for promotion and tenure since those materials, by design, align very well with the TEI and the TEF. I felt as I've been putting together the materials for these domain certificates, I'm really actually putting together materials for my own promotion packet."

- Kayleigh Keller, Statistics



"I particularly recommend getting involved in the TEI because it provides structure to promote authentic growth in teaching effectiveness. It motivates me to use what I learned during a professional development opportunity, implement it, assess how it went, and reflect on the process and what's next. Doing so not only leads to improved teaching practices and student success, but also provides faculty with evidence of their teaching effectiveness they can use in annual review and T&P."

- Julie Taylor-Massey, HDFS



"Working through the TEF and TEI has had very positive effects on my teaching and classroom climate. The reflections and [TILT's] feedback will be great to add to my T&P appendices."

- Stephen Aichele, HDFS

# Summer 2022 - Spring 2023 Certificate of Achievement Earners

- Aramati Casper Biology
- Annie Krieg Art History\*
- Ashley Harvey Human Development and Family Studies\*
- Blythe LaGasse Music
- Jennifer Reinke Human Development and Family Studies\*
- Julie Taylor-Massey Human Development and Family Studies
- Kimberly Jeckel Biomedical Sciences
- Mindy Van Kalsbeek Social Work
- Ray Miller Economics\*
- Shari Lanning Clinical Sciences\*
- Stephen Aichele Human Development and Family Studies\*

\*Letter of Commendation earner

Hear more <u>faculty perspectives of TEI</u> at CSU!



## **Best Practices in Teaching Courses**

TILT continues to develop and offer the Best Practices in Teaching (BPiT) curriculum, a series of online courses based in research and scholarship on learning and teaching.

In each three-week course, 25-30 faculty, staff and graduate student participants learn about, apply, and reflect on pedagogical techniques aligned with TILT's **Teaching Effectiveness Framework**.

The BPiT courses also serve to build community among instructors and provide an opportunity to earn Teaching Effectiveness Initiative Program domain experience units.

#### What's new for BPiT this year?

- TILT instructional designers developed, built and piloted a new Rubrics as a Tool to Support Student Success course and offered two sections in Fall 2022.
- TILT collaborated with the Accessibility Technology Resource Center (ATRC) to incorporate their Accessible and Inclusive Electronic Content into the BPiT curriculum. This course is offered every semester with the intention of improving baseline knowledge for creating accessible electronic materials on campus.
- First Four Weeks (FFW) now includes a Canvas module for faculty on messaging to students during the first four weeks, created and generously contributed by CSU professors Ashley Harvey, Meara Faw, and Rodolfo Valdes Vasquez.
- Accessible and Inclusive Electronic Content, First Four Weeks. Rethink the Syllabus, and Teaching Online were restructured to be more user-friendly and better aligned with Quality Matters standards.
- All BPiT courses are regularly reviewed and revised based on new research and participant feedback.

12 BPiT courses were offered from Summer 2022 - Spring 2023:

- Accessible and Inclusive Electronic
   Learning Outcomes and Course Content
- Active Learning
- Classroom Climate
- Create Assignments
- Critical Thinking
- First Four Weeks
- Inclusive Pedagogy

- Alignment
- · Planning an Effective Class Session
- Rethinking the Syllabus
- Rubrics as a Tool to Support Student Success
- Student Motivation

#### **BPiT Participation**

171

Unique individuals completed at least 1 BPiT during SUM22-SP23

**758** 

Unique individuals completed 1 or more BPiT courses since FA19

106

Individuals completed their first BPiT course during SUM22-SP23

**47**%

Of participants have completed more than one **BPiT** course

**19%** 

Of all CSU faculty have completed one or more **BPiT** courses

Participant has completed all 13 BPiT courses offered

#### **BPiT Impact**

- All BPiT participants submit written reflections on how they will incorporate new instructional strategies into their courses through small, manageable changes.
- Each BPiT course includes a survey designed to measure participants' changes in learning, self-efficacy, or commitment to trying new practices. Survey results are included in the BPiT assessment report.

View the SUM22-SP23 BPiT Assessment Report

## **TILT Summer Conference**

TILT's annual <u>Summer Conference</u>, held each May, focuses on teaching, learning, and student success. This year's theme was "Explore and Embrace Equitable Assessment Practices." Twenty-one sessions were offered across two days. <u>Dr. Lisa Adler-Kassner</u>, Associate Vice Chancellor of Teaching and Learning at the University of California, Santa Barbara, provided a keynote address on using assessment as a lever for institutional equity.



131 faculty & staff attended Summer Conference, an 11% increase from 2022.



96% said the conference increased their understanding of the principles of equitable feedback & assessment.\*



97% found the information presented applicable to their work at CSU.\*

\*Based on post-conference survey with 33% response rate

## **GTA** Training

All first-time Graduate Teaching Assistants (GTAs) at CSU are required to participate in <u>GTA Training</u>, a joint effort among TILT, CSU Graduate School, Student Affairs, and the Office of Inclusive Excellence. GTAs are introduced to universal learning and teaching issues, pedagogical best practices, and strategies for assessing student outcomes.

306 GTAs completed the training in-person and online in Fall 2022, and 45 GTAs completed an online Spring 2023 training for a total of 390 GTAs trained during Fall 2022 and Spring 2023.

### **Alternative Grading Community of Practice**

TILT launched a Community of Practice (CoP) in Spring 2023 focused on <u>Alternative Grading Practices</u>.

Twenty-nine faculty members participated in the CoP and met a total of four times throughout the semester.

The CoP created two topic groups:

- Exploration of Alternative Grading Practices (for faculty just getting started with alternative grading)
- Application of Alternative Grading Practices (for faculty already using alternative grading who are looking to expand their methods)

CoP members shared their work at the 2023 TILT Summer Conference.

TILT will continue the Alternative Assessment CoP in Fall 2023.

## **Community Engaged Learning**

TILT provides support for CSU faculty who are designing and conducting <u>Community Engaged Learning</u> (CEL) in their courses. This includes a range of academic and scholarly activities designed to support community-identified projects while providing rich experiential learning opportunities for students.

In February 2023, TILT hired Danyel Addes in a reimagined role as Community Engaged Learning Program Coordinator to advance a contemporary CEL program. The coordinator provides direct consultation to faculty on course design, critical reflection, and grading and assessment for CEL courses.

Other program development efforts include inventorying existing CEL courses to identify assets, needs, and partnerships, creating a program website and documents, and prototyping a database to record and track CEL courses and partnerships.



## **Caption Support**

TILT's <u>Caption Support</u> coordinates with instructors to provide accurate, edited, closed-caption accommodations on course videos. Providing closed-caption accommodations is required under the Americans with Disabilities Act, and it is CSU policy for every course video to include captions.

#### Captioning by the Numbers

<b>51</b> Students provided with accommodations	<b>2,926</b> Videos captioned	<b>2,690</b> Hours of video captioned
<b>25</b>	6,508	139
Student caption editors employed by TILT	Hours of student employee time spent editing captions	Courses served

#### Outreach, Service and Education

- Presented at the CSU Inclusive Excellence Symposium on closedcaptioning best practices
- Presented CSU's model for providing in-house captioning accommodations at the Colorado Learning and Teaching with Technology Conference
- Served on the CSU IT Accessibility Taskforce
- Served on the CSU Inclusive Physical and Virtual Space Committee
- Created Echo user manual for academic departments
- The Caption Support team was recognized by the Employee Appreciation Board (EAB) for their work on Veterinary Medicine and Biomedical Sciences captions

## **Academic Integrity**

#### Leadership in Artificial Intelligence

Following the rapid rise of Artificial Intelligence (AI) tools, such as ChatGPT, at the beginning of Spring 2023, TILT's <u>Academic Integrity</u> program provided key leadership on campus to address AI in the classroom.

This quick pivot resulted in:

- Representation on the Provost's Ethics Colloquium
- A TILT Summer Conference presentation on Al and Process Model Writing
- Creation of an Al Community of Practice to shape campus efforts and resources related to Al
- Development of the <u>AI & AI Blog</u>, the hub for campus issues at the intersection of Artificial Intelligence and Academic Integrity

Faculty can find many resources and guidance on AI in TILT's newly created AI Survival Toolkit.

#### Summer 2022 - Spring 2023 Program Highlights



Faculty coaching consultations

2,837

Students completed the Academic Integrity Tutorial

Dr. Joseph Brown, TILT's Academic Integrity Program Director, served as Co-Editor for the "Student Breaches of Academic Integrity" section of Springer Press' Handbook for Academic Integrity, published in Spring 2023.



\*First Generation, Limited Income, or

Racially Minoritized

# **Supporting Student Success**

## **TILT Tutoring**

During Fall 2022 and Spring 2023, <u>TILT Tutoring</u> provided in-person drop-in group tutoring for students enrolled in 18 large enrollment, high DFWU math and science courses. Tutoring is held Sunday through Thursday evenings in the TILT Great Hall and, for some courses, at El Centro.

#### **TILT Tutoring by the Numbers**

55	4,382	904
Peer tutors hired, trained & supervised	Student visits to TILT Tutoring	Students accessed TILT Tutoring
<b>50</b> %	<b>59</b> %	64%

#### **Student Success Initiative Funding**

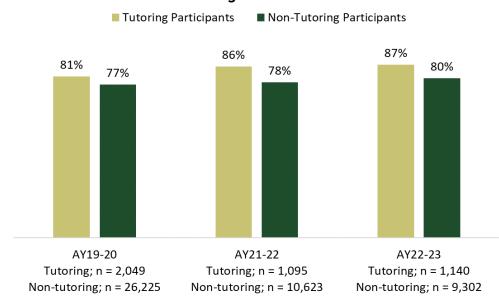
In Spring 2021, TILT, along with seven campus student academic support partners, collaboratively submitted a successful proposal to the Provost Office Student Success Initiative and received funding through the Board of Governors to increase pay equity across campus tutoring centers.

TILT used these funds to increase tutor and Learning Assistant pay from a starting wage of \$13.65/hour (minimum wage) to \$15/hour beginning in Spring 2022.

#### **Student Perspectives**

Students reported TILT Tutoring increased their understanding of course concepts (86%), improved their course grade (90%), and was welcoming (98%) and inclusive (99%).\*

## Student Success Rates were 7 percentage points higher among students who attended TILT Tutoring than those who did not attend



66

"The tutors are incredible. I felt so much more confident learning class material with help from them." - MATH 155 student

"[My tutors] gave me helpful tips and tricks and ways to help me study that made it much more impactful. I genuinely enjoyed going to TILT because they made learning the material not so overwhelming and fun to learn." - BMS 301 student

I love TILT so much! I have gotten help from the tutors since last year and I could not have passed my classes without their help! [The tutors] are really good at answering questions and helping me understand topics and explain them in ways that I can understand. - CHEM 341 student

"Probably the best tutoring resource on campus!" - MATH 155 student

\*Based on end-of-semester survey with 11% response rate



# **Supporting Student Success**

## **Learning Assistant Program**

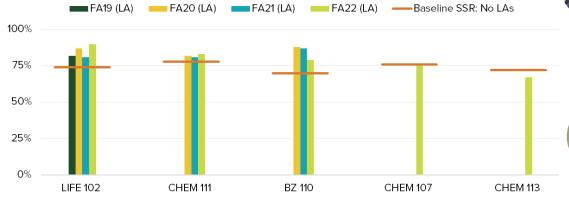
Through TILT's <u>Learning Assistant (LA) Program</u>, trained peer educators help faculty integrate active learning into large-enrollment, high-DFWU courses. LAs promote deeper learning and build community so large courses feel like small ones.

#### LA Program by the Numbers

LAs	hired, trained, & supervised	Student enrollments supported	Attendance at academic support activities
Fall	110	3,818	1,173 unique students
Spring	105	2,749	1,254 i unique students

The TILT LA Program has consistently shown a measurable positive impact on student success rates in established courses: LIFE 102, CHEM 111 and BZ 110. In new LA courses (CHEM 107 & CHEM 113), increases in student success rates lagged as the program coordinators worked to attain student-to-LA ratios to levels recommended by the <a href="Learning Assistant Alliance">Learning Assistant Alliance</a>. In addition, the LA coordinators increased faculty development opportunities to better support active learning in LA-supported courses.

#### Course Student Success Rates before LAs (baseline) and after LAs





#### **Student Perspectives**

"The LAs for this course were fantastic. They made me feel that success was possible even after earning a 40 on the second exam. I am now on track to pass with a B (80%>) and I attribute part of that to confidence gained from the learning assistants and my peers." - CHEM 107 Student

"I found that the material was so much easier to understand when explained by other students, and they created a very positive, welcoming learning atmosphere." - CHEM 111 Student

"The LAs make learning challenging material fun. Creating connections with people who I relate to is really special and they have single-handedly helped me succeed in this course." - CHEM 107 Student

#### **Faculty Perspectives**



"The ability to bring in more active learning into the classroom, more engaged thinking...when you're doing it on your own in a large classroom especially, that can just seem insurmountable. Having the LA Program and that support allows me to bring in new ways of teaching material."

- Jennifer Neuwald, LIFE 102



"I've found that LAs are the best source of "real-time" information that moves from our students directly to me. Rather than dictate what we should do "next week," I prefer to listen to the LAs and let them lead the undergraduate learning process."

- Erik Arthun LIFE 102

# **Supporting Student Success**

## Scholarship and Fellowship Advising

TILT's Office of Scholarship and Fellowship Advising provides CSU students guidance and support in applying for nationally competitive awards.

2022 - 2023 Application Cycle Highlights

44

Awards won

42

Students awarded

\$2,149,000

Total award value

Students received 44 awards from 13 funding entities: Astronaut Scholarship, Critical Language Scholarship, DAAD Rise Internship, Fulbright Summer Institute, Fulbright U.S. Student Program, Gilman Scholarship, Goldwater Scholarship, NSF Graduate Research Fellowship Program, Philanthropic Educational Organization (P.E.O.) Scholarship, Presidential Management Fellowship, Rotary Global Grant, Udall Scholarship and Voyager Scholarship.

#### **Program Growth**

The number of funding entities and awards won by CSU students continues to grow. In the past decade, the number of grants awarded grew from eight to 42, and the number of funding entities grew from four to 13.

#### **Notable Accomplishments**

- The number of NSF GRFP recipients doubled from four to eight compared to the 2021 2022 application cycle.
- More than half of CSU's Fulbright applicants were named semi-finalists (10 out of 16).
- For the 9th year in a row, a CSU student won the Udall Scholarship.
- Of the five P.E.O. Scholars from Colorado, three were from CSU.
- 163 students registered for two Canvas modules designed to guide them through the NSF GRFP and Fulbright applications.

# Office of Undergraduate Research and Artistry (OURA)

#### Mentored Research and Artistry Distinction (MRAD)

Colorado State University is one of a small, but growing, number of universities to specifically note research on a student's transcript – at CSU through the <u>Mentored Research and Artistry Distinction (MRAD)</u>.

The goal of MRAD is to promote and deepen undergraduate inquiry and creativity at CSU, while recognizing student excellence in undergraduate research, artistry, and other creative work. Successful completion is noted on students' final transcripts, and students earn the right to wear silver cords with their graduation regalia and to list this distinction among their academic achievements.

Since relaunching in Spring 2022 and increasing awareness of the distinction, more than 100 students have signed up to work towards the distinction, and 21 students have earned the distinction.

#### Celebrate Undergraduate Research and Creativity (CURC)

<u>Celebrate Undergraduate Research and Creativity</u> (CURC) is an annual event held in April showcasing the creativity and scholarship of undergraduate students across various disciplines through a research and service learning poster symposium, oral and visual arts presentations, written work submissions, and a performing arts symposium.

In Spring 2023, CURC was hosted at the University Center for the Arts for the first time to encourage participation in artistic presentations at CURC.

242

Student presenters



Faculty, staff & graduate student volunteer judges



All 8 colleges represented

# **Supporting Student Success**

## **TILT OURA Lab**

The <u>TILT OURA Lab</u> provides a research skills development experience for CSU STEM students and aims to reduce barriers to entry and increase rates of undergraduate research participation among undergraduate students historically excluded in STEM.

#### **Participation**

Two six-week cohorts of 45 students participated in the lab in Fall 2022 and one 12-week cohort of United in STEMM students participated in Spring 2023. Since the program began, a total of 126 students have participated in the lab.

Fall 2022 and Spring 2023 OURA Lab participants were more racially diverse than the CSU undergraduate population (31% vs. 26%) and were predominately female (81%), furthering the lab's mission of supporting students with identities that have been historically excluded from STEM.

#### **Outcomes**

After the OURA Lab, students reported greatest growth in their:

- Confidence and independence as researchers
- Practical research skills, such as keeping a lab notebook and pipetting
- Research comprehension and communication skills
- Recognition of mistakes as learning opportunities

View the AY22-23 TILT OURA Lab Assessment Report

TILT OURA Lab participants culminate their experience by completing an independent experiment and presenting their projects at the Multicultural Undergraduate Research Art and Leadership Symposium (MURALS) or the OURA Lab Showcase, a new event in Spring 2023. These experiences provide students the opportunity to explore research topics connected to their identities and interests and to practice their research communication skills, network with other researchers on campus, and showcase their work in the OURA Lab.

#### What happens after the OURA Lab?

A primary goal of the OURA Lab is to provide students with the skills and experience to launch into further undergraduate research opportunities.

To better understand what research experiences students pursued after the OURA Lab, TILT hosted an OURA Lab alumni event in Spring 2023 to collect data on students' research engagement.

From this, we learned that:

- At least 20 of the 126 lab participants have engaged in a subsequent research experience.
- At least 14 students secured positions in on-campus research labs with a faculty Principle Investigator.
- Two students acquired competitive summer research internships.

#### **Student Spotlight**

After participating in the OURA Lab in Spring 2023, freshman Katelyn Yee secured an undergraduate research assistant position in the Brainwaves Lab in the CSU Music Department.

Katelyn shared that before the OURA Lab, she didn't know how to get into research labs and thought she didn't have enough experience.

"Confidence is a big thing that I gained [from the OURA Lab]. I never really had a lot of lab experience, so I wasn't super comfortable in a lab [before OURA]."





