



2021 - 2022 Annual Highlights

Since 2004, the Center for Research on Learning and Teaching in Engineering (CRLT-Engin) has promoted evidence-based practices in engineering that enable students and instructors from diverse backgrounds and social identities to learn and thrive. CRLT-Engin expanded its services this year to support the use of new technologies, the integration of inclusion and equity in engineering contexts, and lessons learned from pandemic teaching and learning.

BY THE NUMBERS



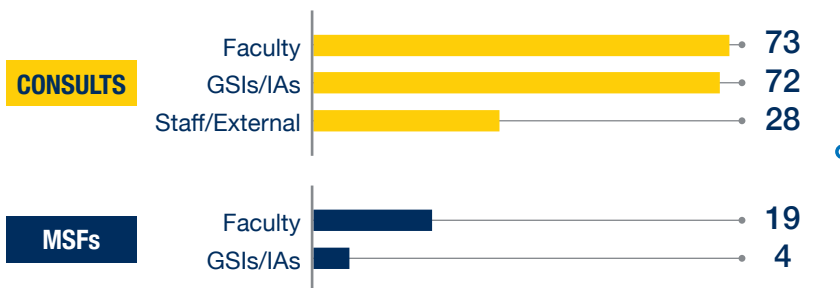
2,512
Total
Participants



Reached
57%
Of All
Instructors

ONE-ON-ONE SERVICES

CRLT-Engin consultants met with faculty, graduate student instructors (GSIs), and undergraduate instructional aides (IAs) to discuss a variety of teaching topics and gather midterm student feedback (MSF). 100% of faculty who responded to our survey would recommend MSFs to their colleagues.



358
1-on-1
Services

"I enjoyed being able to talk about my questions and teaching strategies with [my consultant]! It gave me a chance to step back from the day-to-day work of the semester and think about the class overall."

TEACHING & LEARNING PROGRAMS

SEMINAR SERIES

CRLT-Engin featured many new workshops focusing on topics such as digital assessments, asset-based teaching and learning, and the history of anti-black racism at U-M by the CRLT Players. Dr. James Holly, Jr. led a workshop on the role of faculty in promoting engineering equity.



1,959
Event
Attendees



PANDEMIC LESSONS LEARNED

CRLT-Engin staff collaborated with Joanna Millinchick (ADUE) and Cindy Finelli (EER) on a CoE COVID-19 Skunkworks Initiative to study the effect of the pandemic on student socialization practices.



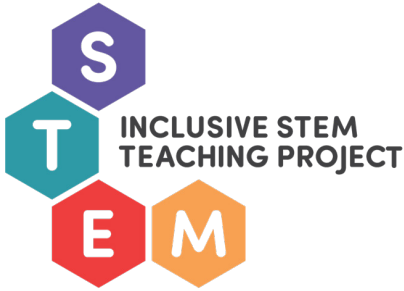
Based on this study, CRLT-Engin's interventions included:

- a faculty workshop and a multi-session faculty learning community,
- a growth mindset lesson within the engineering GSI/IA orientation, and
- a Positive Framing Canvas site for students.

DIVERSITY, EQUITY, & INCLUSION

INCLUSIVE STEM TEACHING PROJECT

CRLT-Engin is part of a multi-institutional Improving Undergraduate STEM Education (IUSE) grant from the National Science Foundation whose goal is to create, deliver, and assess inclusive teaching in STEM as a massive open online course (MOOC). To support U-M instructors taking the MOOC in AY22, CRLT-Engin staff facilitated two 6-week learning communities for faculty and graduate students.



“What I enjoyed most about the Learning Community are the weekly meetings and leadership by [CRLT-Engin], I would not have been able to do the MOOC without the group.”

DEI WEBSITE UPDATES

CRLT-Engin’s inclusive teaching website was updated to reflect an equity-focused teaching paradigm shift, aligning with the equity-centered culture change happening at Michigan Engineering. This resulted in 734 views to the core CRLT-Engin equity-focused pages. CRLT-Engin also created 3 new webpages with curated resources to support engineering instructors in getting started with equity-focused teaching.



734
Website
Page Views



NEW INSTRUCTOR ORIENTATIONS

CRLT-Engin led orientations that trained 88% of new GSIs, 99% of new IAs, and 74% of new faculty this year. Participants engaged in asynchronous Canvas courses which explored inclusive and equitable teaching strategies and research-based teaching practices relevant for their specific roles. These Canvas courses were highly rated by instructors. New faculty also gathered to engage with colleagues and academic leaders.

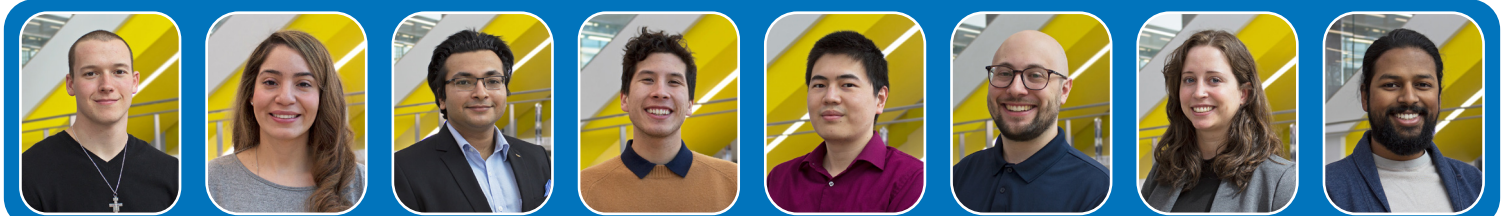


ATTENDEES AT ORIENTATIONS



TOWNER PRIZE

The Richard and Eleanor Towner Prize for Outstanding Engineering GSIs rewards creativity and innovation as an instructor. There were 88 total nominees, representing all 15 programs/departments in the College. Pictured below are the 2022 winners. The honorable mentions are: Tribhi Kathuria (ROB) and Daniel Sousa Schulman (ME).



Travis Dantzer
CEE

Stefany Escobedo
ECE

Aaditya Hambarde
ECE

Alexander Hill
ChE

Yiqiao Huang
MSE

Jordan Noey
NERS

Jule Schatz
CSE

Karthik Urs
ME

...promoting excellence and innovation in engineering education