ASEE FDD Special Sessions

Faculty Development Special Session: Case Study Clinic

M357B - Monday, June 23, 2025, 11:00 AM - 12:30 PM

This is a special session on using Case Clinic Methodology in faculty development. This session will model an actionable Case Clinic methodology (https://drive.google.com/file/d/1UtbYtg4B5s2Eb8og_DFVT0sjNrWPimz8/view (see pgs 54 & 55)) for collectively solving individual challenges. Participants will have structured time to discern how to implement the technique on their campus

Presenters:

Dr. Gillian-Daniel (he/him) engages participants in learning how to teach more equitably and inclusively, and how to create more inclusive research spaces, both in person and online.

Dr. Kita (she/her) works collaboratively with faculty and staff on curriculum development, improved instructor support, and cross-campus projects.

Leading Educational Innovation: Experiences of Fellows from the AMPLIFY Institute

M457B - Monday, June 25, 2025, 1:30 PM - 3:00 PM

Educational change is hard but necessary, and every faculty member is on a journey of discovery and growth as they pursue the desired impact on students and society that brought them to education. One population of faculty in engineering that has had a disproportionate impact on student learning and are positioned to continue implementing positive change initiatives are instructional faculty. However, these faculty are largely overlooked in funding and professional development programs that could amplify their efforts. Therefore, the AMPLIFY Institute was intentionally designed with engineering instructional faculty (EIF) in mind. This semester-long program is designed to partner with EIF wherever they are in their journey towards impact in engineering education. The program leverages a two-day in-person kickoff, six to seven virtual small-group coaching sessions, and a final virtual celebration event.

Throughout the Institute, AMPLIFY Fellows pursue a portion of their vision for change in engineering education through the completion of an innovation/change project. No two projects are alike, and each Fellow has developed unique skills and insights from their experience that other faculty and faculty developers may find helpful in future change efforts. Over the last two years, the Fellows pursued impact within their local communities in a variety of ways, including but not limited to (1) course (re)designs to shift towards asset-based and research-informed instructional approaches, (2) leading collaborative change efforts at the college or institution level, and (3) building momentum towards change through peer-level impact.

To learn from the experiences of these faculty, this special session will introduce the AMPLIFY program design and invite participants to share a lightning talk about the journey they went on to pursue their project and explore the impact it has had at their institution and in engineering education broadly. We will then break into discussion groups, allowing attendees to ask questions and learn from the fellows' experiences.

Facilitator Bios

Gemma Henderson is the Director of Learning Platforms, Academic Systems, Innovation, and Experience at the University of Miami. With a strong foundation in digital pedagogies and educational development, she collaborates across the university to enhance academic systems and foster flexible, engaging learning experiences. Over the past decade, Gemma has led initiatives in instructional design, faculty development, and course innovation in both the U.S. and

the U.K. In recent years, Gemma has served on multiple NSF-funded research projects aimed at advancing undergraduate engineering education at Hispanic-Serving Institutions.

Meagan Kendall is an Associate Professor at The University of Texas at El Paso, Dr. Meagan R. Kendall is a founding member of the Department of Engineering Education and Leadership. With a background in both engineering education and design thinking, her research focuses on how Latinx students develop identities as engineers and navigate moments of identity interference, student and faculty engineering leadership development through the Contextual Engineering Leadership Development framework, and promoting student motivation. Dr. Kendall is the Past Chair of the Engineering Leadership Development Division of ASEE.

Ines Basalo is an Associate Professor in Practice in Mechanical and Aerospace Engineering at the University of Miami. She received her Ph.D. in mechanical engineering from Columbia University and has taught since then. She is actively involved in the undergraduate education of students at the College of Engineering, including organizing and executing the annual Senior Design Expo. Before joining the University of Miami in 2014, she was an adjunct professor at Columbia University and the Cooper Union in New York City.

Alexandra Coso Strong is an associate professor in the School of Chemical and Biomolecular Engineering and the Systems Engineering Program at Cornell University, who works and teaches at the intersection of engineering education, faculty development, and complex systems design. She joined Cornell University after co-founding the School of Universal Computing, Construction and Engineering Education and two degree programs at Florida International University (FIU). Prior to working at FIU, Alexandra served as an Assistant Professor of Systems Design and Engineering at Olin College. Alexandra completed her graduate degrees in Aerospace Engineering from Georgia Tech (PhD) and Systems Engineering from the University of Virginia (MS).

Henry Salgado is a Computer Science Ph.D. student and graduate researcher at The University of Texas at El Paso. He has earned two Master's degrees from UTEP, one in Computational Science and another in Engineering. Henry is a former K–12 teacher, an experience that continues to shape his research interests today. More broadly, his work sits at the intersection of computer science, data science, and engineering education.

FDD special session: Improving the Lecture: The Application of Cognitive Science to PowerPoint

W357B - Wednesday, June 25, 2025, 11:30 AM - 1:00 PM

The goal of this session is to be a "why-to" guide as well as a "how-to" guide for improved PowerPoint in the classroom. To achieve this goal, each cognitive learning theory will be briefly introduced, and then, using authentic examples of slides and lessons from engineering classrooms, the theory will be applied to the slide/lesson to demonstrate how small, theory-based changes can improve students' learning and engagement. Next, attendees will apply the theory themselves in break-out rooms on session-provided slides.

Note, that though big changes may be better, the goal of this session is to focus on many small changes to help bridge the research-to-practice gap.

Presenters:

Robyn Mae Paul (she/her) is an Assistant Professor in the Sustainable Systems Engineering at the University of Calgary. Her teaching includes engineering ethics and sustainable systems design courses, where she teaches in both small PBL settings and extremely large online asynchronous settings.

Renato Bezerra Rodrigues (he/him) is an Educational Developer at the University of Manitoba's Centre for the Advancement of Teaching and Learning, as well Ph.D. candidate in Engineering Education. He has been involved in courses that teach technical communication, technology and society, and engineering ethics and professionalism.

Jillian Seniuk Cicek is a settler and Associate Professor in the Centre for Engineering Professional Practice and Engineering Education in the Price Faculty of Engineering at the University of Manitoba. She teaches technical communication, decolonized engineering, career design, engineering education and engineering education research courses.

FDD Panel on NSF RED Proposals

W157B - Wednesday, June 25, 2025 8:00 AM - 9:30 AM

Seven NSF RED proposal grantees will discuss the proposal process , their accepted proposals and lessons learned. They represent a variety of institutions and types of proposals.

Presenters:

Eva Andrijcic, Rose-Hulman

Adjo Amekudzi-Kennedy ,Georgia Tech

Indira Chatterjee ,UNR

Alan Cheville, Bucknell

Teodora Rutar Shuman, Seattle Univeristy

Lynne Slivovsky, Cal Poly

Julia Williams, Rose-Hulman

FDD Special Session on Writing Teaching Statements

T257A - Tue. June 24, 2025 9:15 AM to 10:45 AM

Session Description

The goal of this special session is to work together with the attendees to identify strategies to support faculty, especially faculty of color, in bringing their personal identities into their teaching. According to the National Center for Education statistics, in Fall 2022, only 28% of full-time faculty did not identify as white. With less than 1% of full-time faculty identifying as American Indian/Alaska Native or Pacific Islander [1].

This special session aims to create a space where all faculty, especially faculty of color, can share and discuss how their teaching statement reflects their identity, how their teaching statement reflects their teaching practices, and ways in which they can bring their identity into the classroom.

Presenters:

Samantha Hoang, Seattle University

Samantha Hoang is an Assistant Professor in the Department of Mechanical Engineering at Seattle University. She is currently conducting research in engineering education related topics such as applications of mastery-based learning, undergraduate research practices, and faculty identity.

Dr. Yen-Lin Han, Professor and Chair of the Department of Mechanical Engineering at Seattle University, is a passionate Engineering Educator and experienced in developing high-impact pedagogical practices.

Empathetic and Useful Paper Reviews: Perspectives from Authors, Reviewers and Editors

T457B - Tuesday, June 25, 2025 1:30 – 3:00

Description

Reviews of journal papers are notoriously harsh and oftentimes overwhelming. Authors may have difficulty navigating extensive and potentially conflicting reviews. There is no obvious necessary or positive outcome to these reviews or the challenges they present. The purpose of this special session is to have a structured discussion of why and how to provide reviews and editorial summaries that are useful and productive to authors, intended for current and future reviewers and editors. We will include the discussion of unintended consequences of negative and confusing reviews, examples of positive and useful AND negative and confusing reviews, and a discussion of how we can improve these processes as a field. Participants will be invited to both share experiences and ideas for supporting the field and each other in the publication process.

Presenters

- Adam Kirn, Ph.D. (he/him) is an Associate Professor at the University of Nevada, Reno. Regarding this special session proposal, he is interested in fostering intentionality and community through the publishing process.
- **Alexandra Coso Strong** (she/her) is an Associate Professor at Cornell University. She is exploring approaches to reviewing that support her colleagues as people first and then engage with their work through a lens of curiosity and collaboration.
- **James Huff, Ph.D**. (he/him) is an Associate Professor at the University of Georgia and Deputy Editor for the *Journal of Engineering Education*. As an author, editor, and reviewer, he aims for the review dialogue to be a constructive and relational process that builds up each other's work.
- **Justin Major, Ph.D**. (they/them) is an Assistant Professor at Rowan University. They are interested in reflexivity in the research and publishing process.
- **Monique Ross, Ph.D**. (she/her) is an Associate Professor at The Ohio State University. She is interested in adopting a reviewing practice that leads with an ethic of care and support rather than gatekeeping.
- **Shane Brown, Ph.D**. (he/him) is a Professor at Oregon State University. He is interested in making the community better through reviewership and editorship.
- Stephanie Cutler, Ph.D. (she/her) is an Associate Research Professor at Penn State. She hopes to help encourage a review process that focuses on growth and community to create a positive disciplinary culture that promotes the success of all members.

W457B·FDD Members Discussion and Planning

Special Faculty Development Division (FDD)

Wed. June 25, 2025 2:00 PM to 3:30 PM

Session Description

Open meeting for FDD membership to discuss division goals and goals. An interactive and dynamic complement to the FDD business meeting.