



WORKSHOPS

Sunday, June 23, 2024, 1:00 pm to 3:30 pm, Oregon Convention Center

U457A: A workshop for faculty developers: An accessible process for helping STEM faculty scope and design educational research and SOTL! Room F149

The ProQual approach. The premise of the ProQual approach is that training faculty on how to conduct high-quality qualitative research should begin not with an overview of approaches, theories, and methods. Rather, it should begin by helping participants flesh out the social system that interests them, and then to define which specific parts of that social system they want to investigate. We call this approach a “methodologically unencumbered” introduction to educational research, intending to arrive at a “social reality under investigation” (SRUI): A tightly scoped segment of a larger social system that is the focus of research. Drafting a properly scoped SRUI is the most critical first step in research design, and the research questions and other decisions involved in the design of educational research flow more easily from there.

The primary mechanism in the ProQual Approach for fleshing out a social system and defining a SRUI is called a pictorial systems map. To create a pictorial systems map, STEM faculty first identify a topic of interest (e.g., “the mental health of undergraduate engineering students at X university”), and sketch out as many things as possible that might play a role in that topic of interest (continuing the example, “what factors might affect engineering student mental health?”) To help faculty develop comprehensive maps, we group potential elements of pictorial systems maps into six categories, coupled with three considerations for the map as a whole.

Moderated by Dr. John Ray Morelock

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U457B: Tools for Addressing Mental Wellness in the Classroom, Room A103

This workshop is designed to use various active learning techniques to introduce faculty, advisors, and administrators to Martin Seligman’s model of positive psychology, provide them tools with which they can begin the discussion, and give them practice using the tools. Seligman and others have identified five (5) things that aid in success, Positive Emotions, Engagement, Positive Relationships, Meaning, and Achievement (PERMA). These are all attributes that we can introduce in meaningful ways in an engineering class, that aids students in developing tools for success, and provides a distinct boundary where tools are provided, but we do not have to be counselors. Students can be directed to protect their mental wellness, provided tools to support themselves, and then shown how to find resources if they need further help.

Dr. Whitney Blackburn-Lynch

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U457C: SUNDAY WORKSHOP: Project Development Canvas (PDC) Interactive Workshop, Room E147

The workshop will present the various stages of the PDC framework, intermixed with meaningful discussions and activities that will showcase the multiple stages of the process and further reinforce the benefits of the PDC.

The four main goals of the workshop are:

1. Introduce the PDC and guide the attendees through each stage of the framework;
2. Discuss the barriers to project implementation and identify how the PDC may help overcome them;
3. Assist the attendees in developing a preliminary plan that addresses each stage of the PDC for a project in one of their courses;
4. Build a collaborative network among workshop facilitators and attendees

Dr. Krystal Corbett Cruse, Casey Kidd

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U457D: Developing Workshops on Educational Uses of AI in Engineering Classrooms, Room B117

As AI-infused tools increase in popularity, it is important to understand their impact on engineering classrooms. Join faculty developers in Engineering as we discuss how to create workshops for your stakeholders on how AI tools integrate into instruction and student's learning experiences. In this workshop we provide guidance for faculty developers on how to introduce AI tools such as ChatGPT and others on the rise. This workshop guides participants on what opportunities exist for developing training on student engagement, integration of AI in instructional practices, and discusses limitations of the most common AI tools. The workshop ends with insights into AI's diversity, equity, and inclusivity implications and how to train others to work within those parameters.

Dr. Tareq Daher, Dr. Amie Sueann Sommers, Dr. Markeya Peteranetz, Ms. Yaoling Wang

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SPECIAL SESSIONS

Monday, June 24, 2024, Oregon Convention Center

- **M357A: Tools to Integrate Transversal Skills: An Experiential Opportunity for Engineering Teachers, 11:00 am to 12:30 pm, Portland Ballroom C**

This special session invites participants to consider how to develop students' transversal competencies in engineering education. Despite broad agreement about the importance of transversal skills for engineering students, such as collaboration and communication skills, from instructors, industry and accreditation boards (ABET, 2023; ENAEE, 2023; Kolmos and Holgaard, 2019; Passow and Passow, 2017), there are complexities in how they can be operationalized and importantly whether students are actually acquiring relevant knowledge, skills, and attitudes. This session will assist educators to adopt innovative and effective strategies to address the required attributes in their courses.

This special session provides strategies to facilitate the explicit and deliberate integration of transversal skills in engineering courses. Participants will be introduced to a 3-phase framework (Isaac et al. 2023), which illustrates the importance of conceptual knowledge, declarative knowledge, and meta-level cognitive and emotional processes. Empirical work has shown that engineering instructors often overlook some of these key aspects required by students. The session will replicate the approach of this model, including case examples and micro-experiential

learning situations (with LEGO blocks) that enable low-stakes experimentation and rapid feedback. Participants in this workshop will:

1. Reflect on their own practices for addressing transversal skills in their teaching
2. Improve their understanding of how to teach transversal skills
3. Analyze a case example on collaboration skills

Dr. Yousef Jalali

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- **M457: Beyond grading—changing our mindset about “assessment” to enhance student-centeredness, 1:30 pm to 3:00 pm, Oregon Ballroom 201**

An overlooked piece of faculty development is helping faculty come to terms with assessment--particularly with the tension between the desire to use assessment to provide feedback on learning, and the cultural and institutional pressures of what “assessment” should look like. The purpose of this special session is to prompt participants to reflect on their assessment practices as examined through a lens of the student-centeredness aspect of effective and inclusive instruction. We argue that feedback and formative goals should be at the core and NOT grading.

Dr. Juan David Ortega, Dr. Ruth A. Streveler, Dr. Matilde Luz Sanchez-Pena, Dr. Holly M. Matusovich, Dr. Karl A. Smith

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Tuesday, June 25, 2024, Oregon Convention Center / Hyatt Regency Portland

- **T214A: Research for All: Be a Better Mentor for your Undergraduate Research Assistants, 9:15 am to 10:45 am, Portland Ballroom C, Oregon Convention Center**

This session will provide research-based templates and strategies for mentoring STEM undergraduate research students.

Dr. Anastasia Marie Ryerson, Dr. Christina A. Pantoja

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- **T293: Developing Meaningful and Effective Proposal Plans for Broader Impacts for P-12 Audiences (CP12), 9:15 am to 10:45 am, Regency Club, Hyatt Regency Portland**

The National Science Foundation has long prioritized the need to identify and address the broader impacts of NSF-funded research through its proposal review criteria. Over the past two decades, other federal funding agencies, including NIH, the Department of Energy, and the Department of Defense, have also increased their focus on broader impacts by requiring new sections of proposal narratives and introducing new funding opportunities.

Broader impacts activities, which are those intended to contribute to one or more desired societal outcomes, can often be connected to stakeholders in the P-12 education sector. In this session, the University of Notre Dame’s Center for Broader Impacts will provide an overview of meaningful and effective broader impacts approaches, examples of fruitful broader impacts activities, and a set of essential considerations when developing a vision and scope for broader impacts work --

all focused on engaging a range of P-12 audiences. Attendees are strongly encouraged to bring draft ideas for potential broader impacts activities or draft proposal descriptions to critically examine and refine during the active working portions of the session.

Moderated by Dr. Katey Shirey

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- **T334A: Transcending Professional Shame and Cultures of Overwork in Engineering Education, 11:00 am to 12:30 pm, Oregon Ballroom 201, Oregon Convention Center**

This highly interactive session is designed to provide engineering faculty with a space to explore barriers and opportunities to establishing a culture of wellness in engineering education. The goal is for faculty to end the session having identified viable strategies that promote individual resilience in the face of professional shame and a culture of overwork, and having concrete approaches for working toward systemic wellness and productivity.

Professional shame has been defined as a “painful emotional state that occurs when one perceives they have failed to meet socially constructed expectations or standards that are relevant to their identity in a professional domain” (Huff et al., 2021). Professional shame may be felt acutely in contexts in which this question is difficult to answer: When is X sufficient to meet or exceed expectations? (where X = service, research, etc.). A culture of overwork is defined both quantitatively and qualitatively, as weekly work hours of 50 or more (Cha, 2013), as well as a culture that values overwork—measured by high productivity expectations and long hours, with little consideration for human wellness. Such cultures are often a source of occupational segregation, a proximate cause of many forms of (among other forms of inequity) gender inequality (Cha, 2013). Research suggests that such cultures are sustained in STEM disciplines by perceptions of merit that are tied to work devotion, even though such cultures paradoxically perpetuate systemic inequity (Blair-Loy and Cech, 2022).

Dr. James Huff, Dr. Karin Jensen, Dr. Jon Leydens

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Wednesday, June 26, 2024, Oregon Convention Center

- **W357: Transforming Courses with Mastery-Based Grading: How to Train Faculty to Redesign a Course Using Mastery-Grading, 11:00 am to 12:30 pm, Latrobe**

Grading practices have been identified as one of the main culprits in the persistence of equity gaps. Traditional grading methods can be inequitable, ineffective, and even damaging.

The CLIMB-UP project (EHR: IUSE/HSI) aims to improve the institutional capacity to improve teaching and learning by using Mastery-Based Grading (MBG) in key sophomore courses (i.e., Statics, Strengths of Materials, Fluid Mechanics, Dynamics, and Embedded Systems) at a very-high enrolling four-year public Hispanic-Serving Institution. CLIMB-UP is a three-year professional development program for faculty to support redesigning and implementing sophomore-level “gateway” engineering courses into a Mastery Grading approach and documenting its effect on students’ academic profiles. Mastery grading is a form of grading based on (1) measurable learning outcomes, (2) eventual mastery of the material, (3) multiple opportunities to show mastery, with no penalty for failed attempts and (4) the use of helpful feedback to provide feedback loops to assist student learning.

We are coming to the end of the initial three-year project for CLIMB. One of the key deliverables of the project is a faculty-development training program to assist faculty in developing the skills needed to redesign a course to use Mastery Grading and implement it at their institution. The purpose of this special session is to introduce this training program to faculty-development professionals, walk the participants through what it takes to train faculty to redesign a course for Mastery Grading, and present all the necessary materials and support for institutions who wish to provide this course for their faculty. The training program consists of a 30-hour initial intensive that can be done in a variety of in-person or online synchronous timeframes followed by a series of follow up tasks and projects for faculty to complete. A comprehensive timeline for the training program, along with supporting documentation for forming and supporting a faculty learning community will also be provided.

Dr. Sharona Krinski, Dr. Robert Christopher Bosley

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- **W557: FDD Conversations: Advocacies, Priorities, and Ways Forward, 3:45 pm to 5:15 pm, B117**

Are you currently a faculty developer, someone engaged in faculty and faculty development research, or interested in faculty development? Join the Faculty Development Division as we engage in conversation on the state of the field, our shared interests and advocacies, and what our priorities have been and ought to be as we move forward to further develop our field.

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DISTINGUISHED LECTURE

Monday, June 24, 2024, 3:15 pm to 4:45 pm, Oregon Ballroom 203 Convention Center

M557: Supporting Change Makers in STEM with the Change Maker's Toolkit

As developers, you support academics in STEM who wish to change their teaching, their classrooms, and their curricula. Your expertise helps them understand how improving pedagogy can transform both student learning and their own academic experiences. Even as these change makers take on this important work, they may encounter resistance to their efforts from others who see pedagogical change as a challenge to the traditions of the department or the college, or they may struggle to communicate about the change they envision with audiences within and outside of their department. The purpose of this distinguished lecture is to introduce you to a change maker's "toolkit" that you can use to provide additional support to the individuals with whom you work.

Dr. Julia Williams, Rose-Hulman Institute of Technology

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POSTER SESSION

Monday, June 24, 2024, 9:15 am to 10:45 am, Exhibit Hall BCD, Oregon Convention Center - [LEARN MORE](#)

1. **Board 119: Exploring Factors and Support for Effective Faculty Mentoring of Undergraduate Students in Engineering** [\[view paper\]](#)
Sarah Baka (Youngstown State University) and Dr. Cory Brozina (Youngstown State University)
2. **Board 120/Lessons Learned: "I Can't Build It Because They Won't Come": Faculty Survey Response Rates in Engineering Education Research** [\[view paper\]](#)
Dr. Rachel Ziminski (University of Massachusetts, Lowell) and Dr. Yanfen Li (University of Massachusetts, Lowell)
3. **Board 121: Lessons Learned: Mapping and Mobilizing Faculty Assets for Creating Faculty-Development Programs in Engineering Ethics Education** [\[view paper\]](#)
Bono Po-Jen Shih (Pennsylvania State University) and Dr. Sarah E Zappe (Pennsylvania State University)
4. **Board 122: Preparing to Teach a Multi-Campus (Distributed Learning) Course** [\[view paper\]](#)
Dr. Casey James Keulen (University of British Columbia, Vancouver), Dr. Christoph Johannes Sielmann P.Eng. (University of British Columbia, Vancouver), and Elly Park (University of British Columbia, Vancouver)
5. **Board 123: Work in Progress: A Case Study of a Community of Practice Model Fostering Faculty Scholarship of Teaching and Learning of the Entrepreneurial Mindset** [\[view paper\]](#)
Dr. Kristen Peña (Arizona State University), Dr. Medha Dalal (Arizona State University), and Prof. Jean M. Andino Ph.D., P.E. (Arizona State University)
6. **Board 124: Work in Progress: A Framework to Develop Project-based Platforms to Support Engineering and Technology Education: Project Development Canvas** [\[view paper\]](#)
Mr. Casey Daniel Kidd (Louisiana Tech University), Dr. Krystal Corbett Cruse (Louisiana Tech University), and Dr. Kelly B Crittenden (Louisiana Tech University)
7. **Board 125: Work in Progress: Faculty Experiences and Learning Through Oral-Assessment Implementation in Engineering Courses** [\[view paper\]](#)
Dr. Minju Kim (University of California, San Diego), Dr. Carolyn L Sandoval (University of California, San Diego), Josephine Relaford-Doyle (University of California, San Diego), Torus Washington II (University of California, San Diego), Dr. Saharnaz Baghdadchi (University of California, San Diego), Dr. Nathan Delson (University of California, San Diego), Dr. Marko Lubarda (University of California, San Diego), Dr. Alex M. Phan (University of California, San Diego), Prof. Curt Schurgers (University of California, San Diego), and Dr. Huihui Qi (University of California, San Diego)
8. **Board 126: Work in Progress: Investigating Faculty Development Experiences in the Context of a Teaching-focused Book Club** [\[view paper\]](#)
Marcus Melo de Lyra (The Ohio State University), Dr. Medha Dalal (Arizona State University), Dr. Kristen Peña (Arizona State University), and Mrs. Jennifer Hadley Perkins (Arizona State University)
9. **Board 127: Work in Progress: Strategizing the Integration of VR and AR in STEM Education: Aligning Educational, Organizational, and Technological Strategies** [\[view paper\]](#)
Dr. Amirmasoud Momenipour (Rose-Hulman Institute of Technology), Dr. Priyadarshini Pennathur (University of Texas at El Paso), Dr. Arunkumar Pennathur (University of Texas at El Paso), and Brian Boswell (Rose-Hulman Institute of Technology)
10. **Board 128: Work in Progress: Toward a Common Sci Comm Strategy** [\[view paper\]](#)
Mr. Mark Blaine (University of Oregon) and Dr. Nathan Jacobs (University of Oregon)

TECHNICAL SESSIONS

[M357B-Faculty Development Division \(FDD\) Technical Session 1](#)

Mon. June 24, 2024 11:00 AM to 12:30 PM

F150, Oregon Convention Center

1. **Awakening Critical Consciousness in Engineering Education: Interdisciplinary Insights and Strategies for Faculty Development** [\[view paper\]](#)
Ms. Jameka Wiggins (The Ohio State University) and Dr. Monica Cox (The Ohio State University)
2. **Examining the Implementation and Impact of Reflective Practices in Engineering Courses: Insights from Faculty and Teaching Assistants** [\[view paper\]](#)

Dr. Logan Andrew Perry (University of Nebraska, Lincoln), Mrs. Ibukunoluwa Eunice Salami (University of Nebraska, Lincoln), Prof. Heidi A. Diefes-Dux (University of Nebraska, Lincoln), Grace Panther (University of Nebraska, Lincoln), and Mrs. Katie Mowat (University of Nebraska, Lincoln)

3. **Sessions on Faculty Ethics** [\[view paper\]](#)
Dr. Robert A Linsenmeier (Northwestern University) and Dr. Jennifer L. Cole (Northwestern University)
4. **WIP: Developing a Framework for Ethical Integration of Technology in Instruction** [\[view paper\]](#)
Prof. Helen Choi (University of Southern California)

M457B·Faculty Development Division (FDD) Technical Session 2

Mon. June 24, 2024 1:30 PM to 3:00 PM

F150, Oregon Convention Center

1. **A Predictive Study on the Adoption of Active Learning at HBCUs among Engineering Faculty** [\[view paper\]](#)
Mr. Pelumi Olaitan Abiodun (Morgan State University) and Dr. Oludare Adegbola Owolabi P.E. (Morgan State University)
2. **Apoyando y Modificando el Currículo: Supporting our Next Generation Latinx STEM Students** [\[view paper\]](#)
Mayrismir Cordero (Affiliation unknown), Anna Tanguma-Gallegos PhD(c) (Arizona State University), and Caroline Vaningen-Dunn (Arizona State University)
3. **Faculty Development Symposium: Building a Community for Early-Career Engineering Hispanic Faculty's Success and Advancement** [\[view paper\]](#)
Dr. Dayna Lee Martínez (Society of Hispanic Professional Engineers, Inc.), Dr. Kimberly D Douglas P.E. (Society of Hispanic Professional Engineers, Inc.), Andrea D. Beattie (Society of Hispanic Professional Engineers, Inc.), and Ms. Esther Gonzalez (Affiliation unknown)
4. **Faculty and Administrators' Servingness in Engineering Education at Hispanic Serving Institutions: A Systematic Review** [\[view paper\]](#)
Dr. Hyun Kyoung Ro (University of North Texas) and Shirley Anderson (University of North Texas)
5. **Unintended Positive Consequences of an NSF-funded System-wide Collaboration** *(Recipient, FDD Best Diversity Paper)* [\[view paper\]](#)
Dr. Feruza Amirkulova (San Jose State University), Dr. Lalita G Oka (California State University, Fresno), Dr. Arezoo Sadrinezhad (California State University, Fresno), Dr. Sue Rosser (San Francisco State University), Dr. Kimberly Stillmaker PE (California State University, Fresno), Dr. Maryam Nazari (California State University, Los Angeles), Jessica C Bennett (Affiliation unknown), Prof. Younghee Park (San Jose State University), and Dr. Lizabeth L Thompson P.E. (California Polytechnic State University, San Luis Obispo)

M557B·Faculty Development Division (FDD) Technical Session 3

Mon. June 24, 2024 3:15 PM to 4:45 PM

F150, Oregon Convention Center

1. **Designing Inclusive Teaching Workshops with Non-Tenure-Track Faculty in Mind** [\[view paper\]](#)
Dr. Kenya Z. Mejia (California State University, Los Angeles), Dr. Corin L. Bowen (California State University, Los Angeles), Dr. Lizabeth L Thompson P.E. (California Polytechnic State University, San Luis Obispo), Dr. Yilin Feng (California State University, Los Angeles), and Dr. Gustavo B Menezes (California State University, Los Angeles)
2. **Fostering Innovation: Insights from Faculty Participation in Teaching-Focused Communities of Practice** [\[view paper\]](#)
Dr. Yonghee Lee (University of Illinois at Urbana-Champaign), Dr. Jay Mann (University of Illinois at Urbana-Champaign), and Chris Migotsky (University of Illinois)
3. **How Communities of Transformation Support Change Agency** [\[view paper\]](#)
Selen Güler (University of Washington), Rae Jing Han (University of Washington), Dr. Elizabeth

Litzler (University of Washington), Dr. Eva Andrijcic (Rose-Hulman Institute of Technology), and Dr. Sriram Mohan (Rose-Hulman Institute of Technology)

4. **Lessons Learned about Empowering Engineering Instructional Faculty through a Group Coaching Model** [\[view paper\]](#)

Gemma Henderson (University of Miami), Dr. Ines Basalo (University of Miami), Dr. Alexandra Coso Strong (Florida International University), and Dr. Meagan R. Kendall (University of Texas at El Paso)

5. **Positive Leadership: An Intentional Approach to Faculty Leadership Development** [\[view paper\]](#)

Dr. Heidi M Sherick (University of Michigan), Valerie N Johnson (University of Michigan), and Ms. Heather Wagenschutz (University of Michigan)

T257A-Faculty Development Division (FDD) Technical Session 4

Tue. June 25, 2024 9:15 AM to 10:45 AM

E144, Oregon Convention Center

1. **Establishing a Framework for the Effective Mentorship of Junior Engineering Faculty** *(Recipient, FDD Best Paper)* [\[view paper\]](#)

Himani Sharma (Affiliation unknown), Mrs. Jennifer Hadley Perkins (Arizona State University), Dr. Samantha Ruth Brunhaver (Arizona State University), and Dr. Adam R Carberry (The Ohio State University)

2. **Faculty Transformation: a Study of Professional Transition** [\[view paper\]](#)

Dr. Lori Houghtalen (University of Texas at El Paso) and Dr. Meagan R. Kendall (University of Texas at El Paso)

3. **Investigating Supports, Barrier and Cultural Navigations During Transitions as International Faculty Members** [\[view paper\]](#)

Dr. Debalina Maitra (Arizona State University), Seyed Hamid Reza Sanei (Penn State University, Behrend College), and Dr. Jiawei Gong (Penn State University, Behrend College)

4. **Transitions in Engineering Leadership: Interim to Permanent Deans and Chairs** [\[view paper\]](#)

Dr. Michael James McGinnis (LeTourneau University) and Dr. Matthew G. Green (LeTourneau University)

5. **When You Don't Know the Way, Walk Slowly: Our Transition from a Teaching-Intensive University to a Research-Intensive University as Professors of Engineering Practice** [\[view paper\]](#)

Prof. James Canino (Purdue University), Prof. Steve France (Purdue University), and Prof. Ruth Wertz (Purdue University)

T357-Faculty Development Division (FDD) Technical Session 5

Tue. June 25, 2024 11:00 AM to 12:30 PM

E144, Oregon Convention Center

1. **A Cross-Institutional Study of Engineering Education Faculty Profiles** [\[view paper\]](#)

Mr. Gadhaun Aslam (University of Florida) and Idalis Villanueva Alarcón (University of Florida)

2. **From Graduate Student to Academic Change Maker: Analyzing the Impact of the 'Making Academic Change Happen' Curriculum on Early Career Faculty and Academic Staff** [\[view paper\]](#)

Dr. Julia M. Williams (Rose-Hulman Institute of Technology), Dr. Eva Andrijcic (Rose-Hulman Institute of Technology), and Dr. Sriram Mohan (Rose-Hulman Institute of Technology)

3. **Graduate Students' Development of Teaching Skills and Identity** [\[view paper\]](#)

Nishchal Thapa Magar (George Mason University), Dr. Jill K Nelson (George Mason University), Jessica Rosenberg (Affiliation unknown), and Marco Brizzolara (George Mason University)

4. **TA Training at Two R1 Institutions: A Comparative Analysis** [\[view paper\]](#)

Ms. Haley Briel (University of Wisconsin, Madison), Dr. Deesha Chadha (Affiliation unknown), Chris Dakes (University of Wisconsin, Madison), Erica Jean Hagen (University of Wisconsin, Madison), and Dr. Umang Vinubhai Shah (Affiliation unknown)

[T457·Faculty Development Division \(FDD\) Technical Session 7](#)

Tue. June 25, 2024 1:30 PM to 3:00 PM

C123, Oregon Convention Center

1. **Bridging the Gap: Exploring Real-Life Experiences of Engineering Faculty in Implementing EBIPs** [\[view paper\]](#)
Stephanie Adams (Oregon State University), Dr. Shane A. Brown P.E. (Oregon State University), Aturika Bhatnagar (New Jersey Institute of Technology), Dr. Prateek Shekhar (New Jersey Institute of Technology), and Jeff Knowles (Oregon State University)
2. **Learning from Experience: A Faculty-Led Collaborative Inquiry Exploring Evidence-Based Strategies for Embedding Communication Skills Across Engineering Curricula** [\[view paper\]](#)
Dr. Ashley R Taylor (Virginia Polytechnic Institute and State University), Dr. Josh Iorio (Affiliation unknown), Kelly Scarff (Virginia Polytechnic Institute and State University), Angelo Biviano (Virginia Polytechnic Institute and State University), Ms. Christine Burgoyne (Virginia Polytechnic Institute and State University), Caroline Finlay Branscome (Virginia Polytechnic Institute and State University), Kathleen Carper (Virginia Polytechnic Institute and State University), and Dr. Sara L Arena (Virginia Polytechnic Institute and State University)
3. **Lessons Learned: Mental Health Initiatives for Engineering Faculty Impacts on Faculty Well-being** [\[view paper\]](#)
Ms. Shawna Dory (Penn State University), Dr. Sarah E Zappe (Penn State University), and Dr. Stephanie Cutler (Penn State University)
4. **Lessons Learned: Summer Book Club to Promote Reflection among Engineering Faculty on Mental Health of Students** [\[view paper\]](#)
Luis Delgado Jr. (Penn State University), Dr. Stephanie Cutler (Penn State University), Dr. Sarah E Zappe (Penn State University), and Dr. Ibukun Samuel Osunbunmi (Penn State University)
5. **WIP: Teaching Evaluations for Teaching Improvements** [\[view paper\]](#)
Dr. Sarah Lynn Orton P.E. (University of Missouri, Columbia)

[T557·Faculty Development Division \(FDD\) Technical Session 9](#)

Tue. June 25, 2024 3:15 PM to 4:45 PM

E142, Oregon Convention Center

1. **Exploring Motivational Tools for Homework in a Senior-Level Engineering Course** [\[view paper\]](#)
Dr. Richard T Buckley P.E. (United States Air Force Academy)
2. **Improving student outcomes in math through online faculty professional development** [\[view paper\]](#)
Dr. Chris S. Hulleman (University of Virginia) and Dr. Dustin B. Thoman (San Diego State University)
3. **Lessons Learned: Exploring Effective Student-centered Instructional Practices in Middle and Upper-level Engineering** [\[view paper\]](#)
Shabnam Wahed (Virginia Polytechnic Institute and State University), Dr. Nicole P. Pitterson (Virginia Polytechnic Institute and State University), Dr. Jennifer "Jenni" M Case (Virginia Polytechnic Institute and State University), Dr. David B Knight (Virginia Polytechnic Institute and State University), and Dr. Homero Murzi (Virginia Polytechnic Institute and State University)
4. **Translational Engineering Education: A New Paradigm for Preparing Next-Generation Engineers for the 21st Century Workforce** [\[view paper\]](#)
Dr. Phuong Truong (University of California, San Diego), Prof. Truong Nguyen (University of California, San Diego), Prof. James Friend (University of California, San Diego), and Dr. Alex M. Phan (University of California, San Diego)

[W157·Faculty Development Division \(FDD\) Technical Session 8](#)

Wed. June 26, 2024 8:00 AM to 9:30 AM

E142, Oregon Convention Center

1. **Exploring the Role of Emotions in Foundational Electrical Engineering Courses** [\[view paper\]](#)
Ing. Fabiola G Rosales Sanchez (Virginia Polytechnic Institute and State University) and Dr. Nicole P. Pitterson (Virginia Polytechnic Institute & State University)
2. **Faculty Perspectives on Undergraduate Use of Generative Artificial Intelligence (GAI) Assistance: A Work-in-Progress** [\[view paper\]](#)
Michaela Harper (Utah State University) and Dr. Cassandra McCall (Utah State University)
3. **The Idea Acceptance Model** [\[view paper\]](#)
Mr. Jacob Michael Elmasry (The University of Sydney)
4. **WIP: A Knowledge Graph to Share and Discover High-Impact Practices and Support Decision-Making** [\[view paper\]](#)
Dr. Natalia Villanueva Rosales (The University of Texas at El Paso), Dr. Ann C. Gates (The University of Texas at El Paso), Lani Nicole Godenzi (The University of Texas at El Paso), Francisco Osuna (The University of Texas at El Paso), Angel U. Ortega (The University of Texas at El Paso), and Veronica A. Carrillo (The University of Texas at El Paso)

W357B-Faculty Development Division (FDD) Technical Session 10

Wed. June 26, 2024 11:30 AM to 1:00 PM

E142, Oregon Convention Center

1. **Advancing Peer Observation Processes: Progress, Lessons, and Faculty Development** [\[view paper\]](#)
Nyna Jaye DeWitt (University of Georgia), Animesh Paul (University of Georgia), and Dr. John Ray Morelock (University of Georgia)
2. **Evaluating the Importance of Inclusive Teaching in STEM Faculty Hiring** [\[view paper\]](#)
Dr. Torrie A. Cropps (The University of Texas at Dallas), Jue Wu (University of California, Berkeley), Ms. Samara Rose Boyle (Affiliation unknown), Dr. Canek Moises Luna Phillips (Rice University), Prof. Stephen P. Mattingly (The University of Texas at Arlington), and Dr. Yvette E. Pearson P.E. (The University of Texas at Dallas)
3. **Nursing + Engineering: Lessons Learned in Interdisciplinary Facilitator Dynamics for Faculty Development** [\[view paper\]](#)
Dr. Amber F Young-Brice (Marquette University), Dr. Allison Murray (Marquette University), Dr. Somesh Roy (Marquette University), and Lisa Chase (Marquette University)
4. **Teacher's Perceptions of the Fertility in Implementing Project-based Learning in Engineering Courses** [\[view paper\]](#)
Dr. Octavio Mattasoglio Neto (Instituto Mauá de Tecnologia) and Gabriel Monesi Souza (Affiliation unknown)
5. **Unveiling the Impact of Teachers' Beliefs on Student Development in Rural STEM Education: Roles of Classroom Evaluation, STEM Literacy and Subject Type** [\[view paper\]](#)
Yi Wang (Affiliation unknown), Fangyuan Chai (Affiliation unknown), Yuan Liu (Affiliation unknown), Jun Zhu (Affiliation unknown), and Jing Jin (Affiliation unknown)

W457-Faculty Development Division (FDD) Technical Session 11

Wed. June 26, 2024 2:00 PM to 3:30 PM

E142, Oregon Convention Center

1. **Scholarship of Teaching and Learning (SoTL) Accelerator Program: Overview, Results, and Lessons Learned** [\[view paper\]](#)
Dr. Lisa Bosman (Purdue University), Dr. Katey Shirey (EduKatey), Dr. Nathalie Duval-Couetil (Purdue University), and Rhea Dutta (Purdue University)
2. **The ICE Faculty Development Program (Integrating Curriculum with Entrepreneurial Mindset) – Then and Now** [\[view paper\]](#)
Dr. Andrew L Gerhart (Lawrence Technological University) and Dr. Maria-Isabel Carnasciali (Merrimack College)
3. **The Water Working Group at West Texas A&M University: A creative means for interdisciplinary research catalyzation and faculty development** [\[view paper\]](#)

Dr. Nathan Luke Howell (West Texas A&M University), Dr. Kenneth R. Leitch P.E. (West Texas A&M University), and Dr. Anirban Pal (West Texas A&M University)

4. **WIP: Piloting a Comprehensive Needs Assessment to Enhance Engineering Faculty Development** [\[view paper\]](#)

Dr. Megan Patberg Morin (North Carolina State University), Dr. Joel J. Ducoste (North Carolina State University), and Dr. Evelyn C. Brown (North Carolina State University)