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ASEE Chemical Engineering Division Newsletter

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A Message from the Chair:

Joshua Enszer
University of Delaware

In this issue…

Call Community Announcements

Please send any announcements you'd like included in the Fall 2019 newsletter to elif.miskioglu@bucknell.edu. Deadlines for publication will be announced in the early fall.

Last summer, some colleagues and I read Saundra Yancy McGuire's *Teach Students How to Learn*. While the messaging gets a bit too grade-obsessed for my liking, there are plenty of good ideas in the book (and some of them are accessible freely on a companion website). I decided to carve out a day in our college's Engineering 101 class to explain to our students the often unspoken "method to our madness" – at least for my part, why I design homework, projects, and exams the way that I do. I hope that long-term, I can revisit some of the ideas from that one-off 101 lecture with my chemical engineering students in office hours and advising.

Already, a semester later, I have students in my material and energy balances and engineering statistics classes visiting me, and I have reminder diagrams at the ready. One is a representation of Bloom's Taxonomy – often students struggle in early chemical engineering classes because they're still, at least in part, in "high school mode," thinking they can get away with memorization to succeed on exams. We discuss how "remembering" is an important foundational mode of knowledge, but how exams will assess them more at the "applying" level, so it's not enough to read and reread material, or to accidentally memorize a solution strategy that may only apply to a specific problem.

I think the real breakthrough, and something I've adapted for myself, is what McGuire refers to as "Intense Study Sessions." I originally pitched this four-step process to our first-year students as "interval training for your brain," after trying to promote a growth mindset and telling them their brain is a muscle just like any other. My 101 co-instructor has rebranded it the "Hour of Power," though the actual session length can vary. McGuire purports that these sessions are effective at helping students break tasks down into manageable chunks. I daresay they do the same for faculty! I use it regularly to accomplish my own tasks (such as writing this message!), and I figured it would be good to share here:

(1) Set a goal for the session [1-2 minutes].
(2) Work with focus – eliminate distractions like email and your phone, and devote your mental energy to the task at hand [30-45 minutes].
(3) Reward yourself! Check your phone, grab a snack – personally I like to take a quick walk [5-10 minutes].
(4) Reflect on what you just accomplished – review the work, identify next steps [5 minutes].

I find that if I do at least three "Hours of Power" a day, I often accomplish more than I used to in a less structured 8+ hour workday. I recommend to my students that they do a few a day, each for a different subject, to supplement or partially replace their usual routine. Perhaps if you're not happy with your routine, you could give it a try, too!

One of my favorite parts about being a member of ASEE and our Chemical Engineering Division is the exchange of ideas like these to improve our teaching and learning. I very much look forward to hearing from you, hopefully in person at the Annual Meeting in Tampa! We have a great slate of programming in store, as described in this newsletter. I'm also excited for those who have chosen to run for leadership positions in the division to keep new ideas circulating. You can read their statements and learn how to cast your votes in this newsletter as well. I am grateful to everyone who makes this division such a great community!

ChED Elections: Summary of Candidates

Candidates for Division Chair-Elect

Winner will serve as chair of ChE Division for 2019-2020

Jennifer Cole
Northwestern University

Ashlee Ford Versypt
Oklahoma State University

Candidates for Director

Winner will serve as an advisor to the executive board for a term of 2 years

Chris Barr
University of Michigan

Tracy Carter
Northeastern University

Reginald Rogers
University of Missouri

Candidate for Secretary/ Treasurer

Victoria Goodrich
University of Notre Dame

Vote here by Monday May 27th!

ChED Elections: Candidate for Chair-Elect

Jennifer Cole
Northwestern University

The Chemical Engineering Division of ASEE has a strong following of dedicated faculty with many great ideas about teaching and learning. It is an exciting time to be part of the division and I am eager to run for Chair-Elect to help our faculty bring these great ideas to other members of the division and the wider audience of ASEE.

I am currently Assistant Chair and Lecturer in Chemical Engineering at Northwestern University. I also serve as the Associate Director of Northwestern Center for Engineering Education Research, providing opportunities for faculty researchers to share their work in engineering education and helping make connections between researchers and various partners on campus, including teaching and learning centers, learning scientists, and engineering faculty.

I have been teaching and researching how students learn engineering design for the past decade, from freshman design to capstone courses. My current research has been centered on how students include computational analysis in open ended design problems.

In addition to teaching and research, I am academic adviser for chemical engineering undergraduates, undergraduate program director, and leader of program evaluation for our department. I am also faculty adviser for our graduate student teaching committee, a group of enthusiastic teaching assistants making great strides toward improving training of TAs.

I am happy to be considered for the opportunity to engage with the ASEE Chemical Engineering Division as Chair-Elect. If elected I look forward to helping the division take member feedback into consideration while improving and continuing to expand and engage new faculty. Thank you for your consideration.

ChED Elections: Candidate for Chair-Elect

Ashlee Ford Versypt
Oklahoma State University

Thank you to the ASEE Chemical Engineering Division for the nomination to serve as Chair. I am very passionate about engineering education and the vibrant community of engineering educators in the ASEE Chemical Engineering Division. I would be an advocate for the Division to ASEE and to the chemical engineering field as a whole and would foster collaborative relationships with the AIChE Education Division. The chemical engineering track at the ASEE Annual Meetings is such a special time for networking and learning that I would actively promote. In 2018, I was beyond thrilled to attend the ASEE Chemical Engineering Summer School, and I'm eagerly looking forward to 2021. I would be a supportive Chair of the Division during the planning and preparation for the next Summer School.

All three of my degrees are in chemical engineering: a B.S. from the University of Oklahoma and an M.S. and a Ph.D. from the University of Illinois at Urbana-Champaign. I was a postdoctoral research associate at the Massachusetts Institute of Technology for two years before starting a tenure-track faculty position. I am an assistant professor in the School of Chemical Engineering at Oklahoma State University (OSU), where I began in August 2014. Over the last 15 years, I have been the instructor for more than 60 K-12 and first-year collegiate STEM outreach events through Girl Scouts, Boys & Girls Club, Society of Women Engineers, Boy Scouts, classroom visits, and other programs in three states. I currently lead a hands-on chemical engineering design module based on my research for the local Summer Bridge program for incoming engineering freshmen and a biomedical engineering experience for middle schoolers and their grandparents at the OSU Grandparent University. I teach junior level chemical reaction engineering and an upper division/graduate elective in computational science and engineering. I have also taught process control, graduate seminar, and applied fluids & heat transfer. My research interests are in mathematical and computational modeling of biomedical and pharmaceutical systems and the scholarship of teaching and learning. I have mentored 4 graduate students and 30 undergraduate students in my research lab (65% women).

Since 2015, I have served as the coordinator for the Conoco Phillips Lectureship in Chemical Engineering Education seminar series at OSU. I also served on the planning committee for the ASEE Midwest Section Conference held at OSU in Sept. 2017. I co-chaired sessions at the annual meetings for the ASEE Chemical Engineering Division in 2013 and for the AIChE Education Division in 2016. I have also been very active in the AIChE CAST Division and AIChE Women's Initiatives Committee over the last decade. I serve on the Publications Board for *Chemical Engineering Education* and the Editorial Board for *Processes*. I am an author of two books, five peer-reviewed conference proceedings papers, and four journal articles on a variety of engineering education topics. I, along with my co-author and husband Joel Versypt, received the Joseph J. Martin Award for outstanding paper in the Chemical Engineering Division at the 2013 ASEE Annual Meeting. In 2017, I was named as the recipient of the OSU College of Engineering, Architecture, and Technology Excellent Teacher Award and the AIChE 35 Under 35 in the Education Category. I have been invited as a "young chemical engineering educator" to attend the CACHE Corporation's 50th anniversary celebration "The Future of Cyber-Assisted Chemical Engineering Education Conference." I received the NSF CAREER Award in 2019 to fund research in multiscale modeling for diabetic kidney disease and educational initiatives involving diverse undergraduate students to do research and engage K-12 students and members of the public in biomedical engineering and computational science through scientific demonstrations and interactive experiences. I am currently a Director of the ASEE Chemical Engineering Division (term ending June 2019). Starting in Fall 2018, I took on the additional role as the Chemical Engineering Division's representative to the national ASEE P-12 Committee.

ChED Elections: Candidate for Director

Chris Barr
University of Michigan

Hello, my name is Chris Barr and I am running for a Director position within the ChE Division of ASEE. My original reasoning for joining ASEE and attending my first ASEE conference was to see what interesting and innovative ideas I might be able to implement in the laboratories at the University of Michigan. I was very pleased to find a welcoming group who are striving to improve teaching for the advancement of student learning. Because of this networking and energy, I decided to jump head-first and more actively engage in improving my department with the goal of disseminating my findings within the ASEE community.

Throughout the course of my education and career, I've had the opportunity to learn and work at universities of varying sizes, with varying emphases, and with great professors who cared about student advocacy. I obtained my Bachelor of Science in Chemical Engineering from Tri-State University (now Trine University) where I started developing my love for engineering education as their lab technician. At Tri-State, I worked with professors to develop new experiments and co-authored a poster entitled "Incorporating Food into The Chemical Engineering Curriculum". My path in engineering education continued with a Ph.D. from the University of Toledo in 2013 and a fellowship in the N.S.F. GK-12 grant program during which I presented a poster about "Engaging High School Students in Advanced Chemistry and Chemical Engineering Careers". Currently, I am the Undergraduate Instructional Laboratory Supervisor in the Department of Chemical Engineering at the University of Michigan. Within this position, I get to work closely with students in both chemical engineering labs as well as within a product design laboratory. I am also a member of our undergraduate program committee, departmental safety committee, and am the manager of the Janus Safety Demonstration Laboratory (more to come hopefully at ASEE 2020).

I believe that these experiences have sculpted my desire to improve student learning and understanding (specifically focusing on safety, hands-on application of theory, and technical communications). It is my opinion that, while these three topics are more readily implementable in certain courses such as laboratories and design, implementation into other courses are just as important (especially for sophomore-level courses). Since attending the 2017 ASEE conference, I have presented a poster in 2018 on implementing electronic lab notebooks within our senior lab. Currently, I am a co-author on a multi-university collaborative paper focused on process safety in UO Labs for the 2019 ASEE conference.

When I was asked to be a candidate for a Director of the ASEE Chemical Engineering Division, I was extremely flattered. As a director of ASEE ChE Division, I feel that my background and my drive to improve the chemical engineering curriculum would be beneficial to the division and I would be happy to serve as Director. Thank you for your consideration.

ChED Elections: Candidate for Director

Tracy Carter
Northeastern University

I am writing to ask you to consider me for the position of Director in the Chemical Engineering Division of ASEE. I wish to actively contribute to ASEE's mission to "advance innovation, excellence, and access at all levels of education for the engineering profession". My background consists of both academic and industry experience. I earned my Ph.D. in Chemical Engineering from Northeastern University in Boston, Massachusetts. I started my career as an engineer working for Charles Stark Draper Laboratories. Following that I was an engineer for CytoTherapeutics in Providence, RI, designing medical devices using cell encapsulation technology for the treatment of pain and Parkinson's disease. After the birth of my twins, I taught science concepts to children on the Autism Spectrum. Since then, I have spent eight years as a part-time faculty member in the Northeastern University Chemical Engineering Department. Recently I have also become the Director of the Northeastern University Comm Lab and a Gordon mentor for the Gordon Institute of Engineering Leadership. I am also designing an experiential education program at Northeastern University for Ph.D. students.

I am passionate about chemical process safety education. Having taught in the Unit Operations Laboratory for eight years, I have seen first-hand how important these concepts are for students. Recently I designed and taught a class in chemical process safety at Northeastern. I am currently working with CCPS on the Chemical Process Safety Faculty Workshops. I am also collaborating with five other universities to incorporate chemical process safety into the unit operations laboratories.

I look forward to working with all of you to develop innovative approaches to engineering education. Thank you for considering me for this position.

ChED Elections: Candidate for Director

Reginald Rogers
University of Missouri

I am honored and humbled to have been identified as a candidate for the Director position within the Chemical Engineering Division of ASEE. I am completing my tenure at Rochester Institute of Technology (RIT) and am in the process of transitioning to the University of Missouri, where I will be assuming a similar role as an Associate Professor in the Department of Biomedical, Biological, and Chemical Engineering. I have been a member of ASEE since 2004 as a graduate student at the University of Michigan. During my time as a graduate student, I was one of the founding members of the Student Constituent Committee. My primary role was as Programming Chair. Though we were small, we worked tirelessly to grow from committee to a full division. Our success in creating the Student Division continues to be seen today, which I am excited to see.

I have instructed multiple Chemical Engineering courses during my time at RIT. My primary courses have been Material and Energy Balances, Separation Processes, and Unit Operations Laboratory. In all of these courses, I designed them to not only teach the fundamentals but force students to develop out-of-the-box thinking. Development of such skills has proven invaluable to the students as they translate the knowledge to their real-world experiential learning. Through consistent assessment, these courses have provided a platform for other courses to build on top of the skills attained from these courses. I will be continuing my instruction of Material and Energy Balances when I begin my tenure at the University of Missouri.

Currently, I am serving as the Programming Chair for the Chemical Engineering Division for the current Annual Meeting in Tampa, FL. In addition to my service within ASEE, I am also serving as Vice Chair (previously Programming Chair) for the Nanoscale Science and Engineering Forum (NSEF) within the American Institute of Chemical Engineers (AIChE). If given the opportunity to serve as a Director, I view my role as a connector to help build key touch points for critical collaborations between ASEE and AIChE. I will leverage my connections within both organizations to help provide advisory knowledge to the ChED executive leadership for further growth of the division.

Thank you for this opportunity to be considered for the Director position in ChED.

ChED Elections: Candidate for Secretary/Treasurer

Victoria Goodrich
University of Notre Dame

I am pleased to run for Secretary/Treasurer for the ASEE Chemical Engineering Division. I am an Associate Teaching Professor of Chemical and Biomolecular Engineering (CBE) at the University of Notre Dame. Prior to teaching, I received degrees in Chemical Engineering from the University of Oklahoma (BS – 2006) and the University of Notre Dame (MS – 2009 and PhD – 2011). Upon completing my doctorate, I entered the teaching faculty at the University of Notre Dame as the Director of the First Year Engineering Program while also teaching in CBE.

In 2018, I entered fully into the CBE faculty as an associate teaching professor where I now focus on coordinating and managing the laboratory courses as well as working with faculty to create new learning opportunities throughout the chemical engineering curriculum. My research focuses on creating and assessing experiential and informal learning that takes place on campus. In particular, I'm interested in understanding how educational experiences inspire the formation of engineering identity and impact long-term success in their future professions by developing more than just traditional technical skills.

ASEE has provide me with countless opportunities for learning and development, and many of my current projects have been inspired and fostered by the community of this division. I look forward to an opportunity to give back to the ASEE Chemical Engineering Division in this role of Secretary/Treasurer if elected.

Vote here by Monday May 27th!

Annual Conference: ChED Special Events

Join ChE Division colleagues at one of our celebrations, events, or workshops!

M705: Chemical Engineering Division Awards Banquet
Monday, June 17th 7:00 PM to 9:00 PM at Columbia Restaurant (2117 East 7th Avenue)
Ticketed Event: $60.00 advanced registration and $70.00 on site registration.
Join us for the presentation of this year's ChE Division awards!

ChE Division Informal "Dutch Treat" Dinner
Tuesday, June 18th 6:00 PM (Location To Be Determined)
Meet up after the business meeting to select a restaurant for a casual, "dutch treat" (pay-your-own) dinner with ChE Division colleagues.

M504B: 2019 ASEE Interdivisional Town Hall Meeting, Stop lecturing about active learning! Integrating good teaching practices into ASEE conference sessions
Monday, June 17th 3:15 PM to 4:45 PM Grand Ballroom A, Convention Center
As a leading organization in the field of engineering education, ASEE and its members continue to support advances in engineering education scholarship and research. We have helped to change learning environments in many engineering classrooms to support more active and engaging experiences for our students. How might we explore incorporating a similar range of presentation modes and styles at ASEE? See program for more details on topics.

M505: Donald Woods Lectureship Award for Lifetime Achievement in Chemical Engineering Pedagogy
Monday, June 17th 3:15 PM to 4:45 PM Room 8, Convention Center
The Donald Woods Lectureship Award for Lifetime Achievement in Chemical Engineering Pedagogy recognizes the outstanding achievement of an individual through improvements of lasting influence to chemical engineering education.
This year's recipient is Joseph Shaeiwitz of Auburn University. The title of his talk is "What to teach and how to teach it. Lessons learned in 40+ years."

T505: Chemical Engineering Division Open Mic
Tuesday, June 18th 3:15 PM to 4:45 PM Room 1, Convention Center
This informal session is open to a general audience and will be a free exchange of ideas, opportunities, and challenges within chemical engineering education.

T605: Chemical Engineering Business Meeting
Tuesday, June 18th 5:00 PM to 6:00 PM Meeting Room 9, Tampa Marriott Waterside
This meeting is open to all existing and potential members of the Chemical Engineering Division. Feel free to stop by, meet division members, and help plan for the coming year.

Annual Conference: ChED Sessions

Tuesday, June 18th

T105: Teaching and Assessment in Chemical Engineering

8:00 AM to 9:30 AM Room 4, Convention Center

Moderators: Joseph Paul Chada and Marina Miletic

1. **Direct and Indirect Assessment of Student Perspectives and Performance in an Online / Distance Education Chemical Engineering Bridging Course**
   Dr. Matthew Cooper (North Carolina State University), Dr. Lisa G. Bullard (North Carolina State University), Mr. Christopher C Willis (NC State University - DELTA), and Dan Spencer (North Carolina State University)
2. **How we teach: Thermodynamics**
   Dr. Margot A Vigeant (Bucknell University), Dr. Jennifer Cole (Northwestern University), Dr. Kevin D. Dahm (Rowan University), Dr. Laura P Ford (University of Tulsa), Dr. Lucas James Landherr (Northeastern University), Dr. David L. Silverstein P.E. (University of Kentucky), and Dr. Christy Wheeler West (University of South Alabama)
3. **Integrating Comics Into Engineering Education To Promote Student Interest, Confidence, and Understanding**
   Dr. Lucas James Landherr (Northeastern University)
4. **Reading anytime: Do students complete missed readings after the due date when using an interactive textbook for material and energy balances?**
   Prof. Matthew W Liberatore (University of Toledo) and Kayla Chapman (University of Toledo)
5. **Work in Progress: Design, Implementation and Evaluation of a 1-credit Chemical Engineering First-Year Seminar**
   Dr. Deborah S. Goldberg (University of Maryland, College Park), Mr. Jinwang Zou (Affiliation unknown), and Prof. Ganesh Sriram (University of Maryland)

T305: Chemical Engineering Poster Session

11:30 AM to 1:00 PM Exhibit, Convention Center

Moderator: Reginald Rogers, Jr.

1. **Work in Progress: Best Practices in Teaching a Chemical Process Design Two-course Sequence at a Minority Serving University**
   Dr. Matthew Lucian Alexander P.E. (Texas A&M University, Kingsville) and Dr. Joseph Amaya (Affiliation unknown)
2. **Using Active Learning and Group Design Activities to Increase Student Perceptions of a Course's Educational Value**
   Dr. Jason R White (University of California, Davis)
3. **The Effects of Frequent, Multimodal Questioning to Drive Lecture: A Positive Case for IRE Student-Instructor Interactions**
   Robert Wayne Gammon Pitman (Ohio State University), Dr. Paul E. Post (Ohio State University), and Lin Ding () (Session papers continued Page 11…)

Annual Conference: ChED Sessions

Tuesday, June 18th continued…

4. **Inclusive Learning and Teaching Strategies or Effective Course Design? Constructing Significant Learning Experiences in Low and High Achieving Learners**
   Robert Wayne Gammon Pitman (Ohio State University), Dr. Paul E. Post (Ohio State University), and Lin Ding ()

T405: Best Practices for Chemical Engineering Lab-Based Courses

1:30 PM to 3:00 PM Room 39, Convention Center

Moderators: Michael David Mau Barankin and Svetlana Mitrovski

1. **A Time-Saving Algorithm for Team Assignment and Scheduling in a Large-Scale Unit Operations Laboratory Course**
   Dr. Andrew Maxson (The Ohio State University)
2. **Best Practices in Teaching Unit Ops: the "Field Session" Lab Experience at the Colorado School of Mines**
   Prof. Michael David Mau Barankin (Colorado School of Mines), Dr. Tracy Q Gardner (Colorado School of Mines), and Dr. Jason C Ganley (Colorado School of Mines)
3. **Developing Reliable Lab Rubrics Using Only Two Columns**
   Prof. Joshua A Enszer (University of Delaware)

Wednesday, June 19th

W105: Computer-Based Learning in Chemical Engineering Courses

8:00 AM to 9:30 AM Room 37, Convention Center

Moderators: Daniel D. Anastasio and Kazeem B Olanrewaju

1. **An interdisciplinary elective course to build computational skills for mathematical modeling in science and engineering**
   Dr. Ashlee N Ford Versypt (Oklahoma State University)
2. **Identifying challenging spreadsheet skills using reading and homework analytics from an interactive textbook**
   Prof. Matthew W Liberatore (University of Toledo) and Kayla Chapman (Affiliation unknown)
3. **Using or Viewing a Demonstration of Inquiry-Based Computer Simulations: The Effectiveness of Both in Learning Difficult Concepts in Heat Transfer**
   Dr. Katharyn E. K. Nottis (Bucknell University), Dr. Michael J. Prince (Bucknell University), Dr. Margot A Vigeant (Bucknell University), and Dr. Amy Frances Golightly (Bucknell University)
4. **Techno-economic modeling as an inquiry-based design activity in a core chemical engineering course**
   Dr. Jamie Gomez (University of New Mexico) and Dr. Vanessa Svihla (University of New Mexico)

Annual Conference: ChED Sessions

Wednesday, June 19th continued…

W305: Problem Solving and Communication in Chemical Engineering

11:30 AM to 1:00 PM Room 37, Convention Center

Moderators: David J. Dixon and Tracy L. Carter

1. **Problem Solving When Using Student-Written YouTube Problems**
   Uchenna Asogwa (University of Toledo), Prof. Matthew W Liberatore (University of Toledo), Dr. Amanda Portis Malefyt (Trine University), and Mr. Timothy Ryan Duckett (Acumen Research and Evaluation, LLC)
2. **The relationship between spatial skills and solving problems in Chemical Engineering**
   Dr. Norman W. Loney (University of Cincinnati), Dr. Gavin Duffy (Dublin Institute of Technology), and Dr. Sheryl A. Sorby (University of Cincinnati)
3. **Understanding the gap between communication in the classroom and communication during an industrial internship**
   Dr. Sarah A Wilson (University of Kentucky)

W405: Works-in-Progress Postcard Session

1:30 PM to 3:00 PM Room 37, Convention Center

Moderators: Vincent Joseph Tocco, Jr. and Matthew Cooper

1. **WIP: Training Chemical Engineers as Technical Communicators**
   Mr. Mitchell William Buccalo (Bucknell University) and Dr. Elif Miskioglu (Bucknell University)
2. **Work in Progress: Improving critical thinking and technical understanding as measured in technical writing by means of in depth oral discussion in a large laboratory class**
   Dr. Mechteld Veltman Hillsley (Pennsylvania State University, University Park, PA) and Dr. Xueyi Zhang (Pennsylvania State University)
3. **Work in Progress: Utilizing change strategies and chemical process safety resources to incorporate process safety education in the unit operations courses in public and private universities**
   Dr. Tracy L. Carter (Northeastern University), Dr. Sarah A Wilson (University of Kentucky), Prof. Samira Azarin (Affiliation unknown), Dr. Janie Brennan (Washington University in St. Louis), Amy J Karlsson (University of Maryland), and Dr. Christopher James Barr (University of Michigan)
4. **Work-In-Progress: Development, Implementation, and Student Perceptions of Pre-Class Thermodynamics Videos**
   Prof. Michael David Mau Barankin (Colorado School of Mines), Dr. Justin Franklin Shaffer (Colorado School of Mines), and Mr. Logan Riley Nimer (Affiliation unknown)
5. **Work-in-Progress: Career Ready...or Not? A Career-Readiness Activity for Senior Chemical Engineering Students**
   Dr. Daniel D. Anastasio (Rose-Hulman Institute of Technology) and Elizabeth R. Morehouse (Rose-Hulman Institute of Technology)

Session papers continued Page 13…

Annual Conference: ChED Sessions

Wednesday, June 19th continued…

6. **Work-in-Progress: Implementing an Open-Ended Laboratory Experience in the Unit Operations Laboratory with an Alternative CSTR Reaction**
   Dr. Erick S. Vasquez (University of Dayton), Dr. Zachary West (University of Dayton Research Institute), Dr. Matthew J DeWitt (University of Dayton), Dr. Michael J. Elsass (University of Dayton), and Dr. Donald A Comfort (University of Dayton)
7. **Work-in-Progress: Improving Undergraduate Engineering Education Through Writing: Implementation in the Classroom Alongside a Hands-on Learning Pedagogy**
   Kitana M Kaiphanliam (Washington State University), Mrs. Olivia Reynolds (Washington State University), Jacqueline Burgher Gartner (Campbell University), Dr. Olusola Adesope (Washington State University), and Prof. Bernard J. Van Wie (Washington State University)
8. **Hearing you loud and clear: the student voice as a driver for curriculum change in a chemical engineering degree course (WIP)**
   Dr. Deesha Chadha (Imperial College London), Ms. Marsha Maraj (Imperial College London), Dr. Andreas Kogelbauer (Imperial College London), Dr. James Campbell (Imperial College London), Dr. Clemens Brechtelsbauer (Imperial College London), Dr. Colin Paul Hale (), Dr. Umang Vinubhai Shah (Imperial College London), and Prof. Klaus Hellgardt (Imperial College London)

W505: Outreach and Beyond in the Chemical Engineering Classroom

3:15 PM to 4:45 PM Room 37, Convention Center

Moderators: Janie Brennan and Jamie Gomez

1. **Fostering a chemical engineering mindset: Chemical process design professional development workshops for early undergraduate students**
   Sindia Rivera-Jiménez Ph.D. (University of Florida), Ms. Deanna Alford (University of Florida), and Dr. Lilianny Virguez (University of Florida)
2. **Scalable and Practical Interventions Faculty Can Deploy to Increase Student Success**
   Mr. Byron Hempel (University of Arizona), Dr. Paul Blowers (University of Arizona), and Dr. Kasi M. Kiehlbaugh (University of Arizona)
3. **Twenty Year Evolution of an Outreach Program**
   Dr. Taryn Melkus Bayles (University of Pittsburgh)

See you in Tampa!

Community Announcements

Learn about Makerspaces at ASEE

Want to inspire student curiosity, ability to connect disparate ideas, and disposition to create things and systems that contribute to the world? Is there a project that you'd like to assign students that would support their learning while impacting the world through product development, citizen science, original research, or public education? Do you think the project could be even better if the students built something, but you're unsure of if/how they could do so with resources available?

If so, B-Fab is for you!

B-Fab, the Bucknell Fabrication Workshop, equips faculty with makerspace training and EML pedagogical tools to empower you to assign interesting and complex projects where students make use of the entrepreneurial mindset and campus makerspaces in pursuit of their finished product. If this sounds appealing, check out "A Taste of B-Fab" at ASEE.

A Taste of B-Fab for Faculty - Making Makerspaces work for you - Creating class projects that motivate & Inspire Entrepreneurial Mindset

9:00am-noon, Room 31, Tampa Convention Center

Focus on the pedagogy of using makerspaces in class, with workshop time for you to develop your own ideas. Please bring a computer!

Interested? It's a free (ticketed) Sunday Workshop at ASEE - sign up here!

https://www.asee.org/public/conferences/140/registration/view_session?session_id=10491

Sponsored by KEEN

Educational Resource: Matthew Liberatore Speaks about Student-Centered Textbooks

Are you questioning how much your students use the textbook or how much textbooks cost? Professor Matthew Liberatore, University of Toledo, gave a talk in April talk titled "Making Textbooks Student-Centered". The talk is archived on YouTube at:

https://www.youtube.com/watch?v=pkgeLFCAtBE.

Questions and comments can be addressed to Prof. Liberatore (matthew.liberatore@utoledo.edu).

New Editor for CEE

Don Visco has been selected as incoming Editor for the journal *Chemical Engineering Education*. Don is well known in the chemical engineering education community and brings a distinguished record of service to both ASEE and AIChE.

Don will spend most of 2019 continuing in his role as Associate Editor and also training to be Editor under Phil Wankat through one annual cycle. He will assume Editor responsibilities at the 2019 Pub Board meeting at the November AIChE Annual Meeting. Thanks to Adrienne Minerick, Lynn Heasley, Phil Wankat, and Milo Koretsky (Chair) for serving on the search committee.

Lynn Heasley has announced her retirement as the Managing Editor. For fifty-five issues(!), Lynn has single-handedly managed the critical day to day journal operations from submission to production to keeping the books. Thanks to Lynn for her service to the journal and the community.

Call for Nominations
AIChE Education Division Awards

AIChE Education Division

AIChE's Education Division grants three awards: Service to Chemical Engineering Education, Excellence in Engineering Education Research, and Innovation in Chemical Engineering Education. Descriptions of the awards are available on the Education Division's website. Please consider nominating a colleague! The Division award nomination form and supporting letters should be submitted to the current awards committee Chair, Polly Piergiovanni, by June 30, 2019.

Photo Credits

Spring at the White House: Joyce Boghosian
Tampa Skyline: P_Breen