Workshop: Entrepreneurial Mindset in the First-Year: Socializing a Body of Knowledge

Dr. Kaitlin Mallouk, Rowan University

Kaitlin Mallouk is an Associate Professor of Experiential Engineering Education at Rowan University. Prior to beginning that role, she spent five years an Instructor in the Mechanical Engineering and Experiential Engineering Education Departments at Rowan.

Dr. J. Blake Hylton, Ohio Northern University

Dr. Hylton is an Associate Professor and Chair of Mechanical Engineering for the T.J. Smull College of Engineering at Ohio Northern University.

Dr. Krista M Kecskemety, The Ohio State University

Krista Kecskemety is an Associate Professor of Practice in the Department of Engineering Education at The Ohio State University and the Director of the Fundamentals of Engineering for Honors Program. Krista received her B.S. in Aerospace Engineering at The Ohio State University in 2006 and received her M.S. from Ohio State in 2007. In 2012, Krista completed her Ph.D. in Aerospace Engineering at Ohio State. Her engineering education research interests include investigating first-year engineering student experiences, faculty experiences, and the research to practice cycle within first-year engineering.

Dr. Jack Bringardner, Colorado School of Mines

Jack Bringardner is a Teaching Associate Professor and Director of Education Innovation at Colorado School of Mines in the Engineering, Design, and Society Department. He teaches the first-year engineering Cornerstone design course. His primary focus is developing curriculum, mentoring students, and engineering education research, particularly for project-based courses, the first-year engineering experience, and student professional skills. He is active in the American Society for Engineering Education and serves on the First-Year Programs Division Executive Board and was the past Webmanager for the ASEE First-Year Programs Division and the First-Year Engineering Experience Conference. He is on the Executive Steering Committee for the Vertically Integrated Projects Consortium. Prior to working at Colorado School of Mines, he was the Assistant Dean for Academics and taught Introduction to Engineering and Design at the NYU Tandon School of Engineering.

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Few components of the engineering curriculum have as much opportunity to impact engineering students as first-year engineering programs. These programs typically serve all engineering students, and act as students' introduction to engineering culture while setting the foundation for skills, mindsets, and habits that students need throughout their engineering education. Integrating Entrepreneurial Mindset into first-year programs is a clear mechanism for developing entrepreneurially-minded engineering graduates. To realize this impact, first-year engineering educators must understand and embrace the connection between traditional first-year engineering curriculum and EM.

The EM in the First-Year (EMIFY) team has been working to 1) Build consensus about the impact EM can have in first-year engineering program and 2) Develop and provide resources to faculty who teach in the first-year. In this workshop, we will share a framework of EM in first-year engineering that was co-developed by representatives from 19 diverse institutions and engage attendees in identifying opportunities in their own first year programs to support students' development of an entrepreneurial mindset.

In this workshop, we will introduce the EMIFY Body of Knowledge and tools for sharing activities and classroom content via EngineeringUnleashed.com - a forum for sharing practical pedagogical ideas for incorporating the entrepreneurial mindset in engineering education. Over the course of the workshop, participants will develop an EngineeringUnleashed.com card to share a project, activity or other content from their first-year engineering course or program.

A general outline of the 90 minute session is:

- 0 - 15 minutes: Facilitators will provide an intro to EM and EM in the First-Year
- 15 - 30 minutes: Facilitators will share the framework developed at the EMIFY Summit
- 30 - 50 minutes: Participants will identify a small portion of their First-Year program or class that they'd like to share and/or that maps to the framework
- 50 - 60 minutes: Facilitators present on EngineeeringUnleashed.com and cards
- 60 - 80 minutes: Participants build a card to share their activity and share out with their table
- 80 - 90 minutes: Facilitators share next steps for EMIFY, advertise KNC, etc