ABSTRACT
Identity is an enduring and continuous sense of one’s self and is often thought of as the answer to the questions, “Who am I, Who can I be, and Where do I belong?” Research shows that developing a robust STEM identity is important for academic and personal development, integration into STEM fields, and academic success in STEM programs. In addition to identity, other non-cognitive factors like motivation, belonging, and personality have similar influence on student success. However, most institutions of higher education rely on cognitive measures, like grades, as a sole measure of student success, and intervention efforts often focus on academic skills required to perform well on these specific measures. Often, supporting students’ non-cognitive factors goes mostly ignored, although this area has gained interest in recent years.

This talk will explore the current research on engineering identity as well as other non-cognitive factors and the emerging links to student success. Data from multiple national studies (both large quantitative survey results and rich “small n” qualitative interviews) will be discussed. Possibilities for particular interventions on individual and sets of non-cognitive factors that are malleable and may be prime targets for supporting student success more broadly will be highlighted.

BIO
Allison Godwin, Ph.D. is an Assistant Professor of Engineering Education and of Chemical Engineering (by Courtesy) at Purdue University. She is also the Workforce Development Co-Director for CISTAR, the Center for Innovative and Strategic Transformation of Alkane Resources, a National Science Foundation Engineering Research Center. Her research focuses how identity, among other affective factors, influences diverse students to choose engineering and persist in engineering. She also studies how different experiences within the practice and culture of engineering foster or hinder belongingness and identity development. Dr. Godwin graduated from Clemson University with a B.S. in Chemical Engineering and Ph.D. in Engineering and Science Education. Her research earned her a National Science Foundation CAREER Award focused on characterizing latent diversity, which includes diverse attitudes, mindsets, and approaches to learning to understand engineering students’ identity development. She has won several awards for her research including the 2016 American Society of Engineering Education Educational Research and Methods Division Best Paper Award and the 2018 the IEEE Frontiers in Education Benjamin J. Dasher Award. In the classroom, Dr. Godwin has also been honored with numerous awards for teaching including being invited as a participant in to the 2016 National Academy of Engineering Frontiers of Engineering Education Symposium and being awarded the 2018 Purdue University School of Engineering Education Award for Excellence in Undergraduate Teaching and the 2018 Purdue University College of Engineering Exceptional Early Career Teaching Award.