abstract
As students progress through their engineering education experience, they are preparing to be an engineer by practicing important skills (like teamwork, communication, or creativity) and developing an engineering identity (and related factors such as confidence and a sense of belonging). This professional preparation is typically happening in communities that students have found or formed throughout their educational experience. However, students also bring an intersection of personal identities that impact their participation in these communities, and thus students may not have equitable opportunities to fully develop the skills and engineering identity needed to succeed. As we all take steps toward making engineering education more inclusive, there remains a need to truly understand the inequities in how students are preparing for practice throughout their educational experience. This talk will highlight two recent projects guided by the overarching research question: how can we better structure the engineering education experience so that students are more equitably prepared for engineering practice?

biosketch
Laura Hirshfield is a Diversity, Equity, and Inclusion Lecturer and engineering education researcher at the University of Michigan, situated in the chemical engineering department. She obtained her BSE from the University of Michigan and her Ph.D. from Purdue University, both in chemical engineering. She then transitioned into the engineering education research field with post-doctoral appointments at Oregon State University, Olin College of Engineering, and the University of Michigan. Her engineering education research involves investigating how students develop engineering skills and engineering identity through their participation in various communities, considering how that development and engagement varies based on a student’s intersection of personal identities. Most recently, as one of the University of Michigan’s first Diversity, Equity, and Inclusion Lecturers within the College of Engineering, Laura has been applying engineering education research methods to assess and explore metrics that represent how the climate and culture in the College is progressing.