Professor Whittington’s work to integrate inclusive teaching practices in the biomedical engineering curriculum uses intentional and creative ways to engage students in considering critical social justice issues relevant to medicine and biomedical engineering. While co-teaching BME 1001, she integrated bioethics and bias in healthcare throughout the course rather than in a single unit. She enhanced course content with more focused materials, discussions, examples, and assessments. By bringing healthcare and social justice to the forefront in introductory biomedical engineering, she broadens students’ learning and prepares them to be innovators and changemakers.

As one student noted, “Professor Whittington challenged and encouraged the class to shift our technical engineering perspectives to think more about how these biomedical devices and designs directly impact the lives of the people, families, healthcare workers, and healthcare organizations who are affected by them in their everyday lives.” She introduces her students to topics about bias in medical product design, bioethics and race in medicine and health disparities, and she encourages future biomedical engineers to consider how to best make devices and products more accessible for as many people as possible. Another student commented: “It’s one thing to innovate and redesign a medical device for a general group of people, but it’s another thing to map out devices that are going to help marginalized groups or groups who face racism in medicine.” These improvements have been retained by other instructors and continue to enhance the learning experiences of biomedical engineering students at WPI.

For integrating inclusive teaching practices and for her contributions in addressing social justice, diversity, and inclusion in the Biomedical Engineering curriculum, WPI is proud to present the 2022 Romeo L. Moruzzi Young Faculty Award for Innovation in Undergraduate Education to Professor Catherine F. Whittington.