

Learning Modules Focused on Entrepreneurship in Biomedical Engineering

A recent focus among faculty and students has targeted entrepreneurship education as a way to broaden professional prospects for engineers. The implementation strategies to introduce engineering students to entrepreneurship vary drastically across programs. Our approach is to provide multiple opportunities to all students in biomedical engineering (BME) program to practice entrepreneurship skills with increasing confidence and capability. We have developed learning modules centered on the theme of Quantified-Self (QS) devices. The focus of these modules is to identify the need by interacting with patients/customer and performing market analysis. The students are also required to communicate the value created by their ideas in terms of economic and societal benefits.

The workshop will include a brief overview of the overall effort to develop entrepreneurial minded learning (EML) and the courses that have been modified in this effort. The presenters will share some of the resources that have been developed by the faculty involved in this project as well as their perspectives on implementation and receptiveness by students. The presenters will engage the audience in demonstration of EML activities utilizing QS devices that are similar to the ones conducted with BME students in classrooms. The activities will be mapped to the entrepreneurship skills and how these can be modified for time and sophistication appropriate for various levels of students. The session will close with an open discussion with the audience about how other established EML practices can benefit from a *themed* approach and what instruments can be used to measure student learning outcomes.