

University of Southern California
VITERBI SCHOOL OF ENGINEERING

Master of Science in Medical Device and Diagnostic Engineering
Program Learning Objectives

The purpose of the USC Viterbi School of Engineering Master of Science in Medical Device and Diagnostic Engineering is to prepare students for high level professional employment in the biomedical industry that incorporates advanced technical knowledge and skills related to product development, medical device regulation or medical technology. Graduates may pursue specialized industrial employment as engineers or advanced graduate studies related to bioinstrumentation, product design, or regulatory affairs. Upon completion of the USC Viterbi School of Engineering Master of Science in Medical Device and Diagnostic Engineering,

- Students will have acquired the advanced technical knowledge and skills needed for the development of medical devices and diagnostic techniques, including aspects of medical product regulation and product development.
- Students will be able to apply critical principles and practices pertinent to medical product development in their employment practice.
- Students will be able to work in diverse global contexts and apply universally respectful and globally centric practices pertinent to the medical device industry.
- Students will demonstrate understanding of contemporary engineering design principles and associated innovative practices relevant to the medical device industry, including medical device regulation and product safety, engineering project management and technology development, and medical instrumentation. Students will be able to implement these practices under guidance of biomedical engineering faculty members in preparation for employment in the biomedical industry or related industries.