

Michigan Technological University**Minor in Medical Devices and Instrumentation**

Program Code: EMDM, Academic Year 2020-21

Department of Biomedical Engineering

Total Credits Required: 18

Required Courses: 12 credits

Course	Credits
BE 2400 Cellular & Molecular Biology I (3)	
BE 2700 Biomedical Signals & Systems (3) <i>Prereq: CH1150, MA2160, ENG1102 and PH2100</i>	
BE 3700 Biomedical Instrumentation (3) <i>Prereq: BE2700, EE3010</i>	
BE 4755 Medical Devices (3)	

Elective Courses: 6 credits, minimum

Course	Credits
BE 3400 Laboratory Techniques for BME (2) <i>Prereq: BE2800 or MSE2100</i>	
BE 3701 Biomedical Instrumentation Lab (1)	
BE 3800 Biomaterials II (3) <i>Prereq: BE2800 or MSE2100</i>	
BE 4115 Finite Element Modeling (3) <i>Prereq: (MA2320 or MA2321) and (MA3520 or MA3521) and (BE3350 or MEEM2150)</i>	
BE 4250 Biomedical Optics (3) <i>Prereq: (MA2320 or MA2321 or MA2330) and (MA3520 or MA3521 or MA3530 or MA3560) and MA3160</i>	
BE 4410 Medical Imaging (3)	
BE 4510 Cardiovascular Engineering (3) <i>Prereq: BE2400</i>	
BE 4520 Industrial & Clinical Issues (3)	
BE 4670 Micro- and Nanotechnology for Biomedical Applications (3)	
BE 4700 Biosensors: Fabrication & Application (3) <i>Prereq: BE3700 and BE3701</i>	
BE 4770 Biomedical Microcontrollers (3) <i>Prereq: BE3700 and BE3701</i>	

This minor is not open to students majoring in Electrical Engineering with a Biomedical Applications Concentration