Michigan Technological University
Minor in Tissue and Stem Cell Engineering
Program Code ETSM, Academic Year 2023-24
Department of Biomedical Engineering
Total Credits Required: 18

Required Course: 9 credits

- BE 2400 Cellular and Molecular Biology (3) Prereqs: CH1150 and MA1121 or MA1160 or MA1161
- BE 2700 Biomedical Signals & Systems (3) Prereqs: CH1150, MA2160, ENG1102 and PH2100
- BE 4230 Stem Cell and Tissue Engineering (3) Prereqs: BE2400, BE3350, BE3800

Elective Courses, 9 credits minimum

- BE 3350 Human Biomechanics (3) Prereqs: BE3300 or MEEM2110
- BE 3800 Biomaterials II (3) Prereqs: BE2800 or MSE2100
- BE 3400 Laboratory Techniques for BME (2) Prereqs: BE2800 or MSE2100
- BE 4200 Cellular & Molecular Biology II (3) Prereqs: BE2400
- BE 4300 Polymeric Biomaterials (3) Prereqs: BE3800
- BE 4330 Biomimetic Materials (3) Prereqs: BE3350 and BE3800
- BE 4335 Smart Polymers (3) Prereqs: BE3350 and BE3800
- BE 4350 Cell Biomechanics & Mechanical Transduction (3) Prereqs: BE2400 and BE3350 and BE3800
- BE 4510 Cardiovascular Engineering (3) Prereqs: BE2400
- BE 4850 Tissue Mechanics (3) Prereqs: BE3350