Michigan Technological University
Minor in Tissue and Stem Cell Engineering
Program Code ETSM, Academic Year 2026-2027
Department of Biomedical Engineering
Minimum Credits Required: 18

This minor is not open to students majoring in Biomedical Engineering.

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 Properties & Biointeractions of Materials (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*