Michigan Technological University Bachelor of Science Degree Audit
Major Program: Electrical Engineering, Concentration: Biomedical Applications
Program Code: EEEB, Academic Year 2025-2026
Minimum credits required for the degree: 128

Core Requirements: 35 to 37 credits*

- CS 1121 (3)
- EE 2112 (4)
- EE 2174 (4)
- EE 3131 (4)
- EE 3140 (3)
- EE 3160 (3)
- EE 3174 (4) or BE 4770* (3)
- EE 3180 (3)
- EE 3901 (2)
- ENG 1101 (3)
  - or ENG 1101T (3) *and* (UN 1013 or UN 2013 (1))
  - or ENG 1001 (2) *and* ENG 1100 (2)
- ENG 1102 (3)

Math and Science: 28 credits

- CH 1150 (3)
- CH 1151 (1)
- MA 1121 (4) or MA 1160 (4) or MA 1161 (5)
- MA 2160 (4)
- MA 2321 (2) or MA 2320 (2)
- MA 3160 (4)
- MA 3521 (2) or MA 3520 (2)
- PH 1100 (1)
- PH 1200 (1)
- PH 2100 (3)
- PH 2200 (3)

EE Technical Electives: 15 credits (16 credits required if BE4770 was taken in core requirements)

Any EE course except CS1000, EE3010, EE4000, EE4805, EE4901, EE4910, and those in major requirements. No more than three credits of EE2000 – EE2999 are allowed. Department approval is required for EEnXXe.

Choose one Option:

Option 1: Senior Design Path: 4 credits

- EE 4901 (2) and EE 4910 (2), *or*
- ME 4901 (2) and ME 4911 (2), or
- BE 4901 (2) and BE 4910 (2)

Option 2: Enterprise Design Path: 6 credits

Engineering Design: Select 6 credits from the following:

- ENT3950, ENT3960, ENT4950 and ENT4960, or
- ENT 3960, ENT4950, ENT4960 and ENT Module from the following: ENT2961, ENT2962, ENT3959, ENT3963, ENT3966, ENT3967, ENT3971, ENT3982, ENT3983, ENT4951

Concentration Requirements: 19 credits

- BL 2010 (3)
- BL 2020 (3)
- BE 2400 (3)
- BE 3700 (3)
- BE 3701 (1)
- (BE 2800 (3) or MSE 2100 (3))
  - or BE 3300 (3)
- BEA Elective, choose one course: (BE2800 or MSE2100), or BE3300, BE3350, BE3800, BE4250, BE4510, BE4670, BE4700, BE4755

*If BE4770 is take, then student must take 16 credits of EE Technical Electives

Essential Education requirements

- Students must complete three main components of Essential Education (First-Year Experience, Distribution or Minor Pathway, and Activities for Well-being and Success) with the credit distributions as shown below. A minimum of 37 credits is required to complete these requirements.
- Up to five Essential Education requirements and the Michigan Tech Seminar may be shared (double-counted) with major requirements. Work with your advisor to determine which major requirements may satisfy Essential Education requirements.
- Some courses are on more than one list, but each course can satisfy only one Essential Education requirement.
- Students may choose between an Essential Education minor or the Distribution Pathway. The list of Essential Education minors can be found here.
- Lists of courses for each requirement can be found on the Essential Education page.

First-Year Experience (16 credits)

- Michigan Tech Seminar (1)
- Math (3)
- Natural and Physical Science (3)
- STEM (3)
- Composition (3)
- Foundations of the Human World (3)

Distribution Pathway (18 credits)

- Communication Intensive (3)
- Intercultural Competency (3)
- Arts and Culture (3)
- STEM (3)
- SHAPE (3)
- Essential Education Experience (3)

Activities for Well-being and Success (3 credits)

Free Electives

- Any coursework is allowable, excluding coursework below the 1000-level.
- The number of free elective credits required is dependent on how many additional credits are required beyond Major requirements and Essential Education requirements to reach the total credits required for the degree as indicated on the audit.

Additional Graduation Requirements

- Satisfy the 2.0 departmental and cumulative Grade Point Average
- Earn 30 upper-level credits at Michigan Tech
- Apply for Graduation