

## Michigan Technological University Bachelor of Science Degree Audit

### Major Program: Engineering

Program Code: EBS, Academic Year 2026-2027

Minimum credits required for the degree: 124

#### Required Courses: 55 to 57 credits

- CEE 3200 (4)
- CH 1150 (3)
- CH 1151 (1)
- EC 3400 (3)
- EE 3010 (3)
- ENG 1101 (3)
- ENG 1102 (3)
- ENG 2120 (4)
- ENG 2505 (3)
- ENG 4300 (3)
- ENG 4505 (3)
- ENG 4525 (3)
- MA 1160 (4) or MA 1161 (5)
- MA 2160 (4)
- MA 2320 (2) or MA 2321 (2)
- MA 3520 (2) or MA 3521 (2)
- MA 3710 (3)
- PH 1100 (1)
- PH 2100 (3)

#### Technical Core: 3 credits

Select one course:

- CEE 3101 (3)
- MSE 2100 (3)

#### Design Implementation: 3 credits

Select one course:

- ENG 3525 (3)
- ENG 4600 (3)

#### Quality Control: 3 credits

Select one course:

- MET 4510 (3)
- OSM 4560 (3)

#### Design Path: 7 credits

Select one option:

##### Option 1: Senior Design Path (One Semester)

- ENG 4905 (3)
- Technical Elective (4)

##### Option 2: Senior Design Path (Two Semester)

- ENG 4900 (2)
- ENG 4910 (2)
- Technical Elective (3)

##### Option 3: Enterprise Design Path

- ENT 3950 (1)
- ENT 3960 (1)
- ENT 4950 (2)
- ENT 4960 (2)
- Technical Elective (1)

#### Math and/or Science Electives: 8 credits

See the Academic Advisor for the Bachelor of Science in Engineering program for a list of eligible courses.

#### Technical Emphasis: 6 credits

Select 6 engineering credits approved by the Academic Advisor for the Bachelor of Science in Engineering program and Department Chair of Engineering Fundamentals.

#### Directed Electives: 9 credits

Select 9 credits in a self-defined program approved by the BSE Academic Advisor. These courses may count towards a minor.

#### Professional Electives: 9 credits

Select 9 credits approved by the Academic Advisor for the Bachelor of Science in Engineering program and Department Chair of Engineering Fundamentals.

## 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](#)