

## Michigan Technological University Bachelor of Science Degree Audit

### Major Program: Computer Engineering

Program Code: ECP, Academic Year 2025-2026

Minimum credits required for the degree: 128

#### Core Requirements: 53 to 55 credits

- CS 1121 (3) *and* CS 1122 (3)
  - or CS 1131 (5)
- CS 1142 (3)
- CS 2311 (3)
- CS 2321 (3)
- CS 3411 (3)
- CS 3421 (3) or EE 3172 (3)
- CS 4321 (3)
- EE 2112 (4)
- EE 2174 (4)
- EE 3131 (4)
- EE 3160 (3) or CS 3331 (3)
- EE 3174 (4)
- EE 3901 (2)
- EE 4173 (3)
- EE 4272 (3)
- ENG 1101 (3)
  - or ENG 1101T (3) *and* (UN 1013 or UN 2013 (1))
  - or ENG 1001 (2) *and* ENG 1100 (2)

#### Math and Science: 23 credits

- MA 1121 (4) or MA 1160 (4) or MA 1161 (5)
- MA 2160 (4)
- MA 2321 (2) or MA 2320 (2)
- MA 3521 (2) or MA 3520 (2)
- MA 3710 (3)
- PH 1100 (1)
- PH 1200 (1)
- PH 2100 (3)
- PH 2200 (3)

#### Directed Math/Science Elective: 6 credits

2nd discipline STEM Science course: minimum 3 credits

- BL 1400 (3) or GE2000 (3), *or*
- CH 1150 (3) *and* CH1151 (1)

Choose remaining Directed Math/Science Elective: 3 cr.

MA2600, 2910, MA3XXX or higher (excluding MA3720, 3750, 3810, 3811, 3990, 4810, 4820, 4905, 4945);  
BL1100 or higher (excluding BL1580, 1590, 1710, 1800, 3970, 3990); CH1160 or higher; PH1090, 1091, 1600, 1610, 2300 or higher; EE3180

#### Technical Electives: 9 credits

7 credits are required if CS1131 is taken in Core Requirements. Select courses from the technical electives course list below.

#### Choose One Option: 10 credits

##### Option 1: Senior Design Path: 10 credits

- EE 4901 (2) and EE 4910 (2), *or*
- ME 4901 (2) and ME 4911 (2)
  
- Additional Technical Electives: 6 credits  
Select from ENG1102 (if taken w/FY program), up to 4 credits maximum from UN3002, UN3003 and/or from the technical elective course list below.

##### Option 2: Enterprise Design Path: 10 credits

Enterprise Project Coursework: 6 credits

- ENT3950, ENT3960, ENT4950 and ENT4960, *or*
- ENT 3960, ENT4950, ENT4960 *and* ENT Module from the following: ENT2961, ENT2962, ENT3959, ENT3963, ENT3966, ENT3967, ENT3971, ENT4951
  
- Additional Technical Electives: 4 credits  
Select from ENG1102 (if taken w/FY program), up to 4 credits maximum from UN3002, UN3003 and/or from the technical elective course list below.

#### Technical Electives Course List:

- CS3141, CS3311, CS3331, CS3425, CS3712
- CS4001-4999 (*excluding* CS4090, 4099, 4431, 4791, 4792)
- CS5000-5899 (*excluding* CS5090, 5091)
- EE2230, EE2231, EE3090-3999 and EE4001-4799 (*excluding* EE3171, 3901, 4000, 4800, 4805)
- EE5000-7999 (*excluding* EE5290, 5975, 5990, 5991, 5992, 4994, 6975)
- MA3202, MA3203, ME4707

## 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](#)