

Michigan Technological University Bachelor of Science Degree Audit

Major Program: Applied Ecology and Environmental Science

Program Code: FES, Academic Year 2025-2026

Minimum credits required for the degree: 120

Required Core Courses: 48 credits

- BL 3490 (4)
- FW 1050 (2)
- FW 2010 (4)
- FW 2051 (2)
- FW 3012 (2)
- FW 3020 (3)
- FW 3170 (1)
- FW 3180 (2)
- FW 3190 (3)
- FW 3200 (4)
- FW 3330 (4)
- FW 3540 (4)
- FW 3600 (3)
- FW 3800 (2)
- FW 3840 (3)
- FW 4710 (3)
- FW 4800 (2)

Required Math and Chemistry: 16 credits

- CH 1150 (3)
- CH 1151 (1)
- MA 1135 (4)
- MA 2720 (4)
- PH 1110 (3)
- PH 1111 (1)

Required Biology: 4 credits, choose one set

- BL 1200 (3) and BL 1210 (1)
- BL 1400 (3) and BL 1410 (1)

Major Requirements: 19 credits

Choose one of the following three options

Option 1 – Terrestrial Ecology

- BL 2160 (4)
- FW 4421 (3)
- FW 4370 (3)

Choose 9 credits

- BL 4034 (3)
- BL 4400 (3)
- BL 4461 (3)
- FW 3110 (3)
- FW 3410 (3)
- FW 4111 (3)
- FW 4120 (3)
- FW 4300 (3)
- FW 4380 (3)
- FW 4811 (2) and FW 4830 (2)

Option 2 – Wetland Ecology and Restoration

- FW 4220 (4)
- FW 4380 (3)
- FW 4XXX/5115 (3)

Choose 9 credits

- BL 2160 (4)
- BL 4400 (3)
- BL 4034 (3)
- BL 4120 (3)
- BL 4447 (3)
- BL 4450 (3)
- BL 4461 (3)
- FW 3410 (3)
- FW 4111 (3)
- FW 4115 (3)
- FW 4370 (3)

Option 3 – Molecular Ecology & Biotechnology

- BL 3300 (3)
- CH 1153 (1)
- FW 2100 (3)
- FW 3075 (3)
- FW 3320 (3)
- FW 4120 (3)
- FW 4128 (3)

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](#)