

Michigan Technological University Bachelor of Science Degree Audit

Major Program: Electrical Engineering, Concentration: Biomedical Applications

Program Code: EEEB, Academic Year 2023-2024

Total credits required for the degree: 128

Core Requirements: 39 credits*

- CS 1111 (3)
- EE 2111 (3)
- EE 2112 (4)
- EE 2174 (4)
- EE 3131 (4)
- EE 3140 (3)
- EE 3160 (3)
- EE 3171 (4) or BE 4770* (3)
- EE 3180 (3)
- EE 3901 (2)
- ENG 1101 (3) 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: 12 credits (13 credits required if BE4770 was taken in core requirements)

Any EE course except CS1000, EE3010, EE3173, 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
- MEEM 4901 (2) and MEEM 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

Free Electives: 0 to 2 credits

Any coursework is allowable, excluding co-curricular and coursework below the 1000- level.

*If BE4770 is taken, then student must take 13 credit of EE Technical Electives

General Education Core, Humanities, Fine Arts, and Social Science (HASS) Requirements: 24 credits

Courses used to complete Core and HASS requirements may not be used to complete other degree requirements. Students must complete 12 credits of Core coursework and 12 credits of Humanities, Fine Arts, and Social Science (HASS) coursework. Repeatable courses may not be repeated for general education credit. Core and HASS courses can be found on the [General Education](#) page.

Core: 12 credits

- UN 1015 (3)
- UN 1025 or an upper level modern language (3)
- Critical and Creative Thinking (3)
- Social Responsibility and Ethical Reasoning (3)

HASS: 12 credits, six of the 12 credits must be at the 3000- or 4000- level

- Communication/Composition (minimum 3 credits)
- Humanities and Fine Arts (minimum 3 credits)
- Social and Behavioral Sciences (minimum 3 credits)
- Any course from the General Education Core, HASS, or Restricted HASS [course list](#) (0 to 3 credits)

Co-curricular Activities: 3 credits

Required for graduation, but not included in the GPA calculation or in the overall credits required for the degree. Only courses on the co-curricular course list are eligible. Half (0.5) credit courses may be repeated to a maximum of one time for co-curricular credit. Find eligible courses on the [General Education](#) page.