

## Michigan Technological University Bachelor of Science Degree Audit

### Major Program: Biomedical Engineering

Program Code: EBE, Academic Year 2023-2024

Total credits required for the degree: 128

#### Engineering Courses: 42 credits

- BE 2110 (3)
- BE 2400 (3)
- BE 2700 (3)
- BE 2800 (3)
- BE 3300 (3)
- BE 3350 (3)
- BE 3400 (2)
- BE 3700 (3)
- BE 3701 (1)
- BE 3800 (3)
- BE 4900 (2)
- EE 3010 (3)
- ENG 1101 (3) or
  - ENG 1001 (2) and ENG 1100 (2)
- ENG 1102 (3)
- BE 3550 (4) or
  - MEEM 2201 (3) and MEEM 3201 (4)

#### Math and Science: 40 credits

- BL 2010 (3)
- BL 2011 (1)
- BL 2020 (3)
- BL 2021 (1)
- CH 1150 (3)
- CH 1151 (1)
- CH 1160 (3)
- CH 1161 (1)
- MA 1121 (4) or MA 1160 (4) or MA 1161 (5)
- MA 2160 (4)
- MA 2320 (2) or MA 2321 (2)
- MA 3160 (4)
- MA 3520 (2) or MA 3521 (2)
- PH 1100 (1)
- PH 1200 (1)
- PH 2100 (3)
- PH 2200 (3)

#### Choose one Option: 4 to 6 credits

##### Option 1: Senior Design Path: 4 credits

- BE 4901 (2) and BE 4910 (2), or
- EE 4901 (2) and EE 4910 (2), or
- MEEM 4901 (2) and MEEM 4911 (2), or
- MSE 4130 (2) and MSE 4140 (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

#### Approved Science Electives: 3 credits

BE4000, BE4200, BL2100, BL2200, BL2940, BL3210, BL3230, BL3640, BL3970, BL4010, BL4020, BL4030, BL4035, BL4380, CH2212, CH2410, CH2411, CH2420, CH2421, CH3510, CH3511, CH3520, CH3521, CH3541, CH4110, CH4120, CH4620, CH4631, CH4710, CH4720, CM4620 or CM4631, CM4650, CM4655, FW3075, KIP4100, MA4515, PH2200, PH2230, PH4210, PH4211

#### Approved Technical Electives: 12 credits

BE4000, BE4100, BE4115, BE4200, BE4230, BE4250, BE4300, BE4330, BE4335, BE4350, BE4410, BE4450, BE4510, BE4670, BE4700, BE4755, BE4760, BE4770, BE4800, BE4850, BE4870, BE4930, EE3131, EE3140, EE3160, EE3261, EE4232, EE4240, MEEM2700, MEEM3700, MEEM3210, MEEM4160, MSE3120, MSE4100, MSE4110, MSE4120, MSE4205, MSE4250, MSE4300, MSE4410, MSE4430, MSE4600, MSE4800

#### Free Electives: 3 credits

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

## 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.