# Michigan Technological University Bachelor of Science Degree Audit Major Program: Geospatial Engineering

Program Code: ECGE, Academic Year 2022-2023 Total credits required for the degree: 127

# Major Requirements: 39 credits

- CEE 3331 (2)
- CMG 3200 (4)
- ENG 1101 (3) or
- ENG 1001 (2) and ENG 1100 (2)
- ENG 1102 (3)
- ENG 2120 (4)
- HU 3120 (3)
- SU 1000 (1)
- SU 2000 (2)
- SU 3600 (4)
- SU 4060 (3)
- SU 4100 (3)
- SU 4140 (4)
- SU 4142 (3)

## Math and Science: 35 credits

- CH 1150 (3)
- CH 1151 (1)
- FW 3540 (3)
- FW 4540 (3)
- GE 2000 (3) or GE 2100 (3)
- MA 1121 (4) or MA 1160 (4) or MA 1161 (5)
- MA 2160 (4)
- MA 2320 (2)
- MA 3160 (4)
- MA 3710 (3)
- PH 1100 (1)
- PH 2100 (3)

## Science Electives: 3 credits minimum

- BL 2001 (3)
- BL 2160 (3)
- CH 1153 (1)
- FW 2010 (4)
- GE 3850 (3)
- PH 1200 (1)
- PH 1600 (2)
- PH 1610 (1)
- PH 2200 (3)

## Required Core Courses: 17 credits

- BUS 2200 (3)
- SU 2050 (4)
- SU 2220 (3)
- SU 3180 (4)
- SU 4180 (3)

## Surveying Electives: 3 credits

- SU 3110 (4)
- SU 4011 (3)
- SU 4012 (3)
- SU 4013 (3)
- SU 4996 (1 to 3)
- SU 4997 (1 to 3)
- SU 4998 (1 to 6)

## **Engineering Electives: 3 credits**

- CEE 3101 (3)
- CEE 3332 (3)
- CEE 3401 (3)
- CEE 3810 (3)
- ENG 3200 (4)
- UN 3002 (1 to 2)
- Any ENT course except ENT3960, ENG4950 (1 to 3)

## Senior Design: 3 credits, choose one option

- Option 1:
- CEE 4905 (3)
- Option 2:
- ENT 3960 (1)
- ENT 4950 (2)

## Free Electives: 0 credits

Free elective credits may be required depending on the number of credits completed in major requirements. 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 cr.

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 <u>General Education</u> 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 <u>General Education</u> page.