

Michigan Technological University Bachelor of Science Degree Audit

Major Program: Computer Engineering

Program Code: ECP, Academic Year 2022-2023

Total credits required for the degree: 128

Core Requirements: 57 credits

- CS 1121 (3) *and* CS 1122 (3)
 - or CS 1131 (5)
- CS 1142 (3)
- CS 2311 (3)
- CS 2321 (3)
- CS 3331 (3) or EE 3160 (3)
- CS 3411 (3)
- CS 3421 (3)
- CS 4321 (3)
- EE 2111 (3)
- EE 2112 (4)
- EE 2174 (4)
- EE 3131 (4)
- EE 3173 (4)
- EE 3901 (2)
- EE 4173 (3)
- EE 4272 (3)
- ENG 1101 (3)
 - 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: 6 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*
- MEEM 4901 (2) and MEEM 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* 3171, 3901, 4000, 4800, 4805)
- EE5000-7999 (*excluding* EE5290, 5975, 5990, 5991, 5992, 4994, 6975)
- MA3202, MA3203, MEEM4707

Free Electives: 2 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.