Michigan Technological University
Bachelor of Science Degree Audit
Major Program: Chemical Engineering
Program Code: ECM, Academic Year 2018-19
Total credits required for the degree: 131

Required Engineering Courses: 46 credits

Course	Credits
CM 2110	3
CM 2120	3
CM 3110	3
CM 3120	3
CM 3230	4
CM 3215	3
CM 3310	3
CM 3510	3
CM 4110	3
CM 4120	3
CM 4310	3
CM 4855	3
CM 4860	2
CM 4861 **or** 4910	1/ (1-3)
ENG 1101 **or** (ENG 1001 and ENG 1100)	3/4
ENG 1102	3

Required Math and Science Courses – 42 credits

Course	Credits
CH 1150	3
CH 1151	1
CH 1153	1
CH 1160	3
CH 1161	1
CH 2410	3
CH 2411	1
CH 3510	3
CH 3511	2
MA 1160 **or** MA 1161	4/5
MA 2160	4
MA 2320 **or** MA 2321 **or** MA 2330	2/3
MA 3160	4
MA 3520 **or** MA3521 **or** MA 3530 **or** MA 3560	2/3
PH 1100	1
PH 1200	1
PH 2100	3
PH 2200	3

Technical Elective Courses**: 16 credits

Organic Chemistry II or substitute: 3 to 4 credits

Course	Credits
CH 2420 **or** BL 2100 **or** CM 4740	3/4

Core Engineering Electives: select at least 5 credits

CM 1000, 2200, 3450, 3825, 3830, 3979, 4125, 4505, 4510, 4650, 4655, 4710, 4740, 4770, 4780, 5100, 5200, 5300, 5400, EE 3010, ENG 2120, ENT 3979, GE 4610, MEEM 2110, MSE 4740. No more than six credits from the following: CM 4000, 4020, 4040, 4060, 4080

Course	Credits

Additional Technical Electives: select 0 or more credits

BE 2110, 2400, 4300, BL 1010 or 1020 or 1040, BL 2010, 2011, 2020, 2021, 2100, 2200, 2210, 3210, 3310, 3640, 4010, 4020, 4030, 4220, 4380, 4820, 4840, CEE 3502, 3503, 4501, CH 2212, 2420, 2421, 3520, 3521, 4110, 4120, 4140, 4212, 4222, 4310, 4311, 4320, 4412, 4430, 4510, 4610, 4620, 4631, 4710, 4720, CM 1000, 2200, 3450, 3825, 3830, 3979, 4125, 4505, 4510, 4610, 4620, 4631, 4650, 4655, 4710, 4740, 4770, 4780, 5100, 5200, 5300, 5400, CMU 8950U, CS 1111, 1121, 1131, EE 2174, 3010, 3120, 3140, EET 3373, ENG 2120, 4510, 5520, ENT 2950, 2960, 3950, 3960, 3974, 3979, 3980, 4950, 4960, 4961, FW 1035, 3098, GE 2020, 2300, 2310, 2640, 3400, 4360, 4610, MA 2600, 2710, 2720, 3210, 3310, 3450, 3710, 3740, 3924, 4330, 4515, 4525, 4620, 4760, 4770, 4908, MEEM 2110, 2150, 2700, 4170, 4200, 4220, 4240, 4260, 4405, 4635, 4650, 5170, 5240, MSE 2100, 2110, 3100, 3120, 4110, 4310, 4320, 4325, 4430, 4740, OSM 4650, PH 2230, 2300, 2400, UN 2600, 3002, 3003, 3004, 3005. No more than three credits from the following: ENT 3953, 3954, 3958, 3959, 3961, 3962, 3963, 3964, 3966, 3967, 3971, 3982, 3983, 4951, 4954

Course	Credits

**Note: Technical elective courses must total to at least 16 credits. Students choosing CM 4910, MA 2330, MA 3530 or MA 3560 may use additional credits as technical electives.

General Education Core and HASS

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

Course	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 HASS credits must be at the 3000 or 4000 level (an upper division language course in place of UN1025 does not meet this requirement). No more than three credits may come from the HASS Restricted course list.

Course	Credits
Communication/ Composition	Minimum 3
Humanities and Fine Arts	Minimum 3
Social and Behavioral Sciences	Minimum 3
Course from any list above or from the Restricted HASS course list	0 to 3

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 credit (0.5) courses may be repeated to a maximum of one time for co-curricular credit. Find eligible courses on the General Education page.

Course	Credits

Free Electives: 0 to 3 credits

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

Course	Credits