Bachelor of Science in Chemical Engineering

For students starting in the 2017-18 Academic Year

Michigan Tech

Key

XX #### = prereq
XX #### (C) = prereq that can be taken concurrently

XX #### (cr)
Name
Sem Offered

A shaded box indicates an elective course.

F = fall semester
Sp = spring semester
Su = summer semester

Freshman Year

Fall

- CH 1150 (3) Univ Chem I F, Sp, Su
- CH 1151 (1) U Chem I Lab F, Sp, Su (Coreq)
- CH 1153 (1) U Chem I Rec F, Sp, Su (CH 1150 Coreq)
- CM 1000 (1) Intro to ChE F
- ENG 1101 (3) Eng Analysis F, Sp, Su (ENG 1002 (C) (or pass spat vis test); MA 1160 (C))
- MA 1160 (4) Calc I F, Sp, Su
- PH 1100 (1) Physics by Inquiry I F, Sp, Su (MA 1160 (C))
- Co-Curricular (½)
- Co-Curricular (½)

Spring

- CH 1160 (3) Univ Chem II F, Sp, Su (Coreq)
- CH 1161 (1) Univ Chem II Lab F, Sp, Su (Coreq)
- ENG 1102 (3) Eng Modeling F, Sp, Su (ENG 1002 (or pass spat vis test); MA 1160)
- MA 2160 (4) Calc II F, Sp, Su
- PH 2100 (3) Univ Physics I F, Sp, Su (PH 1100 (C); MA 1160)
- Co-Curricular (½)
- Co-Curricular (½)

Sophomore Year

Fall

- CH 2410 (3) Organic Chem I F, Su (CH 1160; CH 1161; CH 2410 (C))
- CH 2411 (1) Org Chem Lab I F, Su
- CM 2110 (3) Fund of ChE I F, Su (CH 1150; CH 1151)
- MA 3160 (4) Multivariable Calc F, Sp, Su
- PH 1200 (1) Physics by Inquiry II F, Sp, Su (MA 2160; PH 1200 (C))
- Co-Curricular (½)
- Co-Curricular (½)

Spring

- CH 2420** (3) Organic Chem II Sp, Su (CH 1160; Jr/Sr Stdg)
- **OR**
- CM 4740 (4) Hydro-Pyro Sp
- **OR**
- BL 2100 (3) Principles of Biochem; F (BL 1040)
- CM 2120 (3) Fund of ChE II Sp, Su (CM 2110)
- MA 2320/2321+ (2) Linear Algebra F, Sp, Su (MA 1160)
- MA 3520/3521+ (2) Diff Eqn F, Sp, Su (MA 2160; MA 2321 (C))
- PH 2200 (3) Univ Physics II F, Sp, Su (MA 2160; PH 1200 (C); PH 2100)
- Co-Curricular (½)
- Co-Curricular (½)

*NOTE: A 3000-level or higher modern language course may be taken in place of UN 1025, Global Issues.

Junior Year

Fall

- CM 3510 (3) Phy Chem I F, Sp Su on occasion (CH 1160; CH 1161; PH 2200 (C); MA 2160)
- CH 3511 (2) P Chem Lab I F, Sp Su on occasion (CH 3510 (C))
- CM 3110 (3) Transport I F, Sp (MA 3160; MA 3520; PH 2100)
- CM 3215 (2) Transport Lab F, Sp (CM 2120 (C); CM 3110 (C); MA 3520)
- CM 3410 (3) Tech Comm F, Sp, Su (UN 1015 Jr Stdg)

+NOTE: Linear algebra and differential equations can be taken as accelerated courses during the same semester (MA 2321 & MA 3521) or full semester courses during separate semesters (MA 2320 & MA 3520)

Spring

- CM 3120 (3) Transport II Sp (CM 2120; CM 3110; MA 3520)
- CM 3230 (4) Thermo F, Sp (MA 3160; MA 3520 (C))
- CM 3310 (3) Process Control Sp (CM 2110; CM 2120; MA 3520; PH 2200)
- CM 3510 (3) Chem Reac Eng Sp (CH 2410; CM 2110; CM 3110; CM 3230 (C); MA 3520)

Senior Year

Fall

- CM 4110 (3) UO Lab F (CM 3215; CM 3230; CM 3410 (C); CM 3510)
- CM 4310 (3) Pro Safety/Envir F (CM 3120; CM 3230; Sr Stdg)
- CM 4855 (3) ChE Design I F (CH 2410; CM 3120; CM 3230; CM 3410 (C); CM 3510)
- Technical Elective (3)
- Technical Elective (3)

Spring

- CM 4120 (3) Chem Plant Lab Sp (CM 3215; CM 3310)
- CM 4860 (2) ChE Design II Sp (CM 4310 (C))
- CM 4861 (1) ChE Des Lab II Sp (CM 4860 (C))
- Core Eng'g Elective (4)
- Free Elective (3)

HASS Course Requirements

3 cr from each of the following:

- ❑ Communication List
- ❑ Humanities/Fine Arts List
- ❑ Social & Behav. Sci. List
- ❑ Any list above or Restricted HASS List

Recommended HASS

EC 3400 Economic Decision Analysis, prior or during fall senior classes because it helps with ChE Design. It counts as a 3000-level Social & Behav Sci HASS course.

General Education: Core

- UN 1015 (3) Compositions F, Sp, Su (Fresh Stdg)
- UN 1025* (3) Global Issues F, Sp, Su (Fresh Stdg)
- Critical & Creative Thinking (3)
- Social Resp. & Ethical Reasoning (3)

General Education: HASS

- HASS Course (3)
- HASS Course (3)
- 3000+ level HASS Course (3) (UN 1015; UN 1025)
- 3000+ level HASS Course (3) (UN 1015; UN 1025)

Freshman Year		Sophomore Year		Junior Year		Senior Year	
18 credits	18 credits	16 credits	16 credits	16 credits	16 credits	18 credits	16 credits

See back of academic plan for more information on requirements for elective courses.

This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.

Updated 5/2/2017