

Frequently Asked Questions

Q: How do I sign up for a minor?

- Answer: There is a blue *Curriculum Add/Drop Form* you must fill out and have signed by the minor advisor. Changes are official for a semester when the form is submitted to the Registrar's Office by Wednesday of week 2.

Q: How do I drop a minor?

- Answer: The blue *Curriculum Add/Drop Form* is for dropping a minor. You do not need any approval signatures; just fill it out and take it to the Registrar's Office.

Q: Do credits from a minor double count towards my major?

- Answer: Yes, they may, but you must earn at least 6 credits at the 3000 – 4000 level that do not double count towards your major, except as free electives.

Q: Can I minor in more than one thing?

- Answer: Yes. The six credits not double counting (see above) must be unique for each minor.

Q: When are the courses offered?

- Answer: The course schedule is on the web: <http://www.mtu.edu/registrar/>
Note that many courses are on an alternate year schedule.

Michigan Tech

Michigan Technological University
Department of Chemical Engineering

Faculty Involved with the Mineral Processing Minor:

- Dr. Komar Kawatra
skkawatr@mtu.edu
- Dr. Tim Eisele
tceisele@mtu.edu

Chemical Engineering Advising
Email: cmadvise@mtu.edu
ChemSci 202M 906-487-4327

Advisors:

Ms. Katie Torrey
Dr. Faith Morrison

Department of Chemical Engineering
Michigan Technological University
1400 Townsend Drive
Houghton, MI 4993101295
906-487-3132

Minor in Mineral Processing at Michigan Tech



This minor prepares students for careers in the field of mineral processing, which includes the production of metals, industrial minerals, solid fuels, and similar products. Mineral processing engineers work in a variety of industries that are concerned with raw materials, including mining and metals extraction, inorganic chemical manufacture, construction materials production, and waste recycling/reuse. The worldwide need for ever-increasing amounts of raw materials extracted from progressively more difficult sources creates a strong demand for engineers with knowledge of this area. Courses in the minor provide expertise in particulate handling and processing, extraction and purification of inorganic compounds, and high-temperature processing.

Required credits: 16-19cr
Required classes: See other side

Name (please print): _____
(Last) (First) (Middle)

Student Number: _____

Primary Major: _____ Expected Major Completion Term: _____

Required Courses (13 – 14 credits)

- _____ CM 2200 Intro to Minerals & Materials Processing (3)
 _____ CM 3230 Thermodynamics for Chem Eng (4) **OR**
 ENG 3200 Thermo/Fluid Mechanics (4) **OR**
 MY 3100 Materials Processing I (4) **OR**
 MEEM 3201 Energy-Thermal-Fluids II (4)
 _____ GE 2300 Mineral Science (3)
 _____ CM 3820 Sampling Statistics and Instrumentation (3) **OR**
 CM 4500 Particle Technology (4)

Elective Courses (select at least 2 - 3 credits)

- _____ CM 3820 Sampling Statistics and Instrumentation* (3)
 _____ CM 4020 Undergrad Research in Mineral Processing
 Engineering (1-3)
 _____ CM 4500 Particle Technology* (4)
 _____ CM 4740/MY4740 Hydrometallurgy/Pyrometallurgy (4)
 _____ GE 3400 Drilling and Blasting (3)
 _____ GE 4360 Material Handling (3)
 _____ GE 4630 / EC 4630 Mineral Industry Economics (3)
 _____ MY 3200 Materials Characterization I (4)

Credits Required = 16

Total Credits _____

* *May be used as an elective if not taken in the Required section.*

Courses listed in this minor have the following prerequisites (shown in parenthesis). Concurrency is illustrated by the letter C:

MY3200 (MY2100 and MY2110), MY3100 (MY2100 and MA2160), ENG3200 (MA2160 and CH1112 or (CH 1150 and CH1151) and PH2100 and ENG1102), MY/CM4740 (CH1122 or (CH1160 and CH1161)), CM3230 (CM3510 and MA3160 and (MA3520 C or MA3521 C or MA 3530 C or MA 3560 C)), GE2300 (CH1150 and CH1151), MEEM 3201, (MEEM 2201 and MEEM 2911 C) and (MA 3520 or MA 3521 or MA 3530 or MA 3560)), GE 3400 (GE 2010 and PH 2100), GE 4360 (PH2100), GE/EC 4630 (EC 2001)

Student Signature_____
Date_____
Minor Advisor Signature_____
Date