



Macomb Community College

2021/22

## Western Michigan University Chemistry Curriculum Guide

The WMU Department of Chemistry offers a choice of five majors:

- **Chemistry major** - this 35-credit hour major in the College of Arts and Sciences is designed for students interested in graduate studies in chemistry. This major also suits students interested in teaching chemistry at the middle/high school level after completion of a Master of Arts in Teaching: Secondary Education.
- **Chemistry major ACS Certified** - this 42-credit hour major is certified by the American Chemical Society and is for students planning to enter the chemical industry, though it may be taken by students planning on graduate school study of chemistry.
- **Biochemistry** - this 36-credit hour major is recommended for students interested in careers in health sciences (medicine, dentistry, nutrition, pharmacology, etc.) or a graduate career in biochemistry or molecular biology.
- **Business-oriented chemistry major** - this 37-credit hour major is available to provide the chemical understanding needed if you are preparing for a career in the chemical industry, outside the laboratory. A minor will be chosen in the Haworth College of Business, and students are prepared to enter areas of management, sales, and some aspects of government service.
- **Geochemistry major** - this 68-credit hour major is designed for students interested in the fields of geochemistry or environmental chemistry and is advised in the department of Geological and Environmental Sciences.

### Important Information:

- You must meet one of the following math requirements: **MATH ACT** score of 27 or higher or **MATH SAT** score of 640 or successful completion of **MATH 1110** (MATH 1000 at MCC) with a grade of a "C" or higher or score 61% on the ALEKS math placement exam. More information about the ALEKS math placement can be found at <https://wmich.edu/math/placement>.
- All chemistry majors must meet with the College of Arts and Sciences chemistry advisor about major or minor, WES, and degree requirements. You must make an advising appointment to declare your major or minor.
- Chemistry majors must complete a minor (except Geochemistry). Business-oriented chemistry majors will be required to complete a minor in General Business, Management, or Marketing in the Haworth College of Business (HCoB).

- Chemistry majors must complete their last 14 credit hours in the department of Chemistry at WMU.
- Chemistry minors must complete at least 8 credits at WMU.

### Courses that can be taken at Macomb:

#### WMU courses

CHEM 1100|1110  
 CHEM 1120|1130  
 CHEM 3750|3760  
 CHEM 3770|3780  
 MATH 1220  
 MATH 1230  
 MATH 2720  
 PHYS 2050|2060  
 PHYS 2070|2080

#### Macomb courses

CHEM 1170  
 CHEM 1180  
 CHEM 2260|2270 (elective for Geochem majors)  
 CHEM 2280|2270 (elective for Geochem majors)  
 MATH 1760  
 MATH 1770  
 MATH 2760 (elective for Geochem majors)  
 PHYS 2220 (elective for Geochem majors)  
 PHYS 2230 (elective for Geochem majors)

#### Business-oriented majors may take these additional courses:

BUS 1750	BUSN 1010
MGMT 2500	MGMT 2100
MKTG 2500	MKTG 1010
ACTY 2100	ACCT 1080

#### Biochemistry majors may take these additional courses:

BIOS 1610	BIOL 1000
BIOS 1620	BIOL 1010

#### Geochemistry majors may take these courses:

**\*\*\*Very important note:** Geochemistry majors only need the following courses: **CHEM 1170, 1180, and CHEM 2250|2260** (WMU course - not available at MCC), and 8 hours of **upper-level chemistry** coursework. You will also need 11 credits of **Math and General Science** (see below), and 9 credits of Geoscience electives (not available at MCC).

#### Required:

GEOS 1300	GEOL 1140
GEOS 1310	GEOL 1150

#### Math and General Science or Chemistry electives:

CHEM 3750 3760	CHEM 2260 2270
CHEM 3770 3780	CHEM 2280 2270
BIOS 2320	BIOL 2400 or 2730
MATH 2720	MATH 2760
MATH 3740	MATH 2770
PHYS 2050 2060	PHYS 2220
PHYS 2070 2080	PHYS 2230

#### General education requirements:

- Please see the [WMU Essential Studies \(WES\) transfer guide](#) for requirements for all students.

- All students graduating from the College of Arts & Sciences must meet the world language proficiency by completing two semesters (6-8 hours) of the same foreign language or American Sign Language or passing WMU's proficiency by exam. Please contact the College of Arts & Sciences Undergraduate Advising Office at (269) 387-4366 with any questions. Neither the MACRAO Agreement nor the MTA satisfy the world language requirement.
  - If the student's first language is not English, then the student is exempt from this requirement. Determination of eligibility for this exemption is based on whether the student was required to take the TOEFL test for admission and can be verified through the WMU departments of Spanish or World Language and Literatures.

**Contact information:**

**College of Arts and Sciences Chemistry advisor:**

**Sean Williams**

**chem-advising@wmich.edu**

**(269) 387 4341**

**wmich.edu/chemistry/advising, for appointments**