



West Shore 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 & 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** (MTH 121 at WSCC) 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 in the department of Chemistry at WMU.
- Chemistry minors must complete at least 8 credits at WMU.

Courses that can be taken at WSCC:

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

WSCC courses

CHM 122
CHM 123
CHM 222 (elective for Geochem majors)
CHM 223 (elective for Geochem majors)
MTH 222
MTH 223
MTH 224 (elective for Geochem majors)
PHY 236 (elective for Geochem majors)
PHY 237 (elective for Geochem majors)

Business-oriented majors may also take these additional courses:

BUS 1750	BUS 100
MKTG 2500	MKT 241
ACTY 2100	ACC 121

Geochemistry majors may take these courses:

*****Very important note:** Geochemistry majors only need the following Chemistry courses: **CHM 122, 123, and CHM 2250|2260** (not available at WSCC), and 9 hours of **upper level Chemistry** course-work. You will also need 11 credits of **Math and General Science** (see below), and 9 credits of Geoscience electives (not available at WSCC).

Required:

GEOS 1300	GOL 191
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Math and General Science or Chemistry electives:

CHEM 3750 3760	CHM 222
CHEM 3770 3780	CHM 223
BIOS 2320	BIO 232
MATH 2720	MTH 224
MATH 3740	MTH 231
PHYS 2050 2060	PHY 236
PHYS 2070 2080	PHY 237

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

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(269) 387 4341

wmich.edu/chemistry/advising, for appointments