



Bay College

2025/26

Western Michigan University Chemistry Curriculum Guide

The WMU Department of Chemistry offers a choice of four 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.
- **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 105 at Bay) with a grade of a "C" or higher or score % 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 Bay:**WMU courses**

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

Bay courses

CHEM 110
CHEM 112
CHEM 201 (elective for Geochem majors)
CHEM 202 (elective for Geochem majors)
MATH 141
MATH 142
PHYS 205 (elective for Geochem majors)
PHYS 206 (elective for Geochem majors)

Business-oriented majors may take these additional courses:

ACTY 2100
BUS 1750
MKTG 2500
ACCT 101
BUSN 160
BUSN 253

Biochemistry majors may take these additional courses:

BIOS 1600
BIOS 1610
BIOS 1620
BIOS 2320
BIOS 2500
BIOL 202
BIOL 112
BIOL 110
BIOL 226
BIOL 255

Geochemistry majors may take these courses:

****Very important note:** Geochemistry majors only need the following Chemistry courses: **CHEM 110, 112, and CHEM 2250|2260** (not available at Bay), and 9 hours of **upper level Chemistry** coursework at WMU. You will also need 11 credits of **Math and General Science** (below) and 9 credits of Geoscience electives (to be taken at WMU):

Math and General Science or Chemistry electives:

BIOS 2320
BIOS 3010
CHEM 3750|3760
CHEM 3770|3780
PHYS 2050|2060
PHYS 2070|2080
BIOL 226
BIOL 270 and BIOL 271
CHEM 201
CHEM 202
PHYS 205
PHYS 206

General education requirements:

- Please refer to the [WMU Essential Studies \(WES\) transfer guide](#) that lists courses meeting WES requirements at WMU that may be taken at Bay College.
- All students graduating from the College of Arts & Sciences must complete the College of Arts and Sciences Essentials (**CASE**). This includes world language proficiency (detailed in next bullet point), ENGL 1050/1060 sequence, and by completing the baccalaureate writing requirement.
- 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 Michigan Transfer Agreement satisfy the world language requirement.

- If the student's first language is not English, 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 Languages and Literatures.
- You may email the WMU advisors in the College of Arts & Sciences for further clarification about **WES or CASE**.

Contact information:

Chemistry Advisor
College of Arts & Sciences
Department of Chemistry
wmich.edu/chemistry/advising
chem-advising@wmich.edu
(269) 387-4341

For general education advising or world language requirement questions:
wmich.edu/arts-sciences/advising