



Northwestern Michigan 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** (MTH 111 at Northwestern) 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 credits in the department of Chemistry at WMU.
- Chemistry minors must complete at least 8 credits at WMU.

**Courses that can be taken at NMC:****WMU courses**

CHEM 1100|1110

CHEM 1120|1130

CHEM 3750|3760

CHEM 3770|3780

MATH 1220

MATH 1230

PHYS 2050|2060

PHYS 2070|2080

**NMC courses**

CHM 150

CHM 151

CHM 250 (elective for Geochem majors)

CHM 251 (elective for Geochem majors)

MTH 141

MTH 142

PHY 221 (elective for Geochem majors)

PHY 222 (elective for Geochem majors)

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

ACTY 2100

ACC 121

BUS 1750

BUS 101

MKTG 2500

MKT 201

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

BIOS 1610

BIO 115

BIOS 1620

BIO 116

BIOS 2500

BIO 215

**Geochemistry majors may take these courses:**

**\*\*Very important note:** Geochemistry majors only need the following Chemistry courses: **CHM 150, 151, CHEM 2250|2260** (not available at NMC), and 9 hours of **upper-level Chemistry** coursework. You will also need 11 credits of **Math and General Science** (below), and 9 credits of Geoscience electives (not available at NMC).

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

BIOS 2320

BIO 208

CHEM 3750|3760

CHM 250

CHEM 3770|3780

CHM 251

MATH 3740

MTH 251

PHYS 2050|2060

PHY 221

PHYS 2070|2080

PHY 222

**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 NMC.
- 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](mailto:chem-advising@wmich.edu)  
(269) 387-4341

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