

MAYVILLE STATE UNIVERSITY

Chemistry
Bachelor of Science



Personal Service

We pride ourselves on being just the right size to give students the time they need to be successful. Our average class size is 15, so you will have small, personalized class settings with a technologic focus for you to receive the education that you deserve. Your professors will introduce you to new ways of thinking, exploring issues creatively, and evaluating ideas as you engage in the world.

Opportunity

Whether it's music, athletics, or politics, students at MSU have the chance to participate in a variety of activities and clubs. These organizations are a great way to make new friends with similar interests, and the involvement outside the classroom looks great on a resume.

Some clubs and activities include:

- Theater
- Band & Choir
- DECA
- Science Club
- Comet Radio
- Esports
- Math Club
- Student Government
- Intramural Sports

Success

Our students get jobs. Period. We have internship opportunities to give you real, hands-on learning experiences and make your resume stand out.

Value

The combination of MSU's affordability and its unique offerings make it a Best Regional College, as designated by the Princeton Review. This selection process is based on meeting criteria for academic excellence as well as results of surveys done by current MSU students.

The Program

Mayville State University chemistry students can expect to spend a lot of quality time working in the laboratory. Our chemistry program boasts small class sizes, direct instruction, and continuity from class to lab. These benefits will directly impact your future should you choose to attend graduate school, lead a research project, or work in industry.

MSU's chemistry programs will prepare you for a variety of career and educational opportunities. The programs offer opportunities for research involvement and active participation in the science community, the programs will also prepare students for working in the lab, pursuing graduate studies in chemistry, and/or attending medical, veterinary, or other professional schools.

Advantages

Hands-on lab experience. Unlike many other undergraduate programs in chemistry where hands-on laboratories are becoming increasingly rare, Mayville State emphasizes a strong laboratory component with state-of-the-art instruments for accurate and efficient research.

Undergraduate research opportunities. In many programs, research opportunities are limited to graduate students, but at MSU our program offers undergraduates the opportunity to participate in research projects and to get involved in the science community.



1.800.437.4104

WWW.MAYVILLESTATE.EDU

Major: Chemistry

Required credits to graduate with this degree: 120

This major provides the student with the knowledge, skills, and techniques commensurate with a Bachelor of Science in Chemistry. The student pursuing this degree may plan a professional or industrial vocation or pursue a graduate degree. The student must complete 36 semester hours of Essential Studies courses and the chemistry core listed below. The student must maintain a GPA of 2.50 in the core courses. The MSU Bachelor of Science degree requires completion of at least a minor program in a supporting area in conjunction with the major.

Chemistry majors complete 36 hours of Essential Studies. The following Essential Studies courses are required: ENGL 110, ENGL 120 or ENGL 125, MATH 103, CHEM 121, CHEM 121L, CHEM 122, CHEM 122L, and MATH 165. These courses are pre-requisite courses to this major.

Student Learning Outcomes:

SLO 1: Students will acquire a content knowledge base commensurate with career goals.

SLO 2: Students will communicate scientific information both orally and in writing.

SLO 3: Students will apply quantitative or qualitative theories of science to a broad variety of chemical problems (including experiential component).

SLO 4: Students will construct and critically analyze scientific arguments.

Chemistry - B.S.

Core Requirements:

CHEM 330	Quantitative Analysis I	3 SH
CHEM 330L	Quantitative Analysis I Lab	1 SH
CHEM 341	Organic Chemistry I	4 SH
CHEM 341L	Organic Chemistry I Lab	1 SH
CHEM 342	Organic Chemistry II	4 SH
CHEM 342L	Organic Chemistry II Lab	1 SH
CHEM 360	Elements of Biochemistry	3 SH
CHEM 360L	Elements of Biochemistry Lab	1 SH
CHEM 466	Survey of Physical Chemistry	3 SH
CHEM 466L	Survey of Physical Chemistry Lab	1 SH
CHEM 470L	Integrated Lab	1 SH
CHEM 476S	Comprehensive Review/Exam	1 SH
MATH 323	Probability & Statistics	3 SH
SCNC 480	Science Comprehensive	1 SH

Total 28 SH

Admission to Chemistry Majors

All admission criteria are monitored and enforced by the discipline faculty. Admission to the Chemistry major requires that the student:

1. Complete CHEM 121, CHEM 122, and CHEM 341 with a minimum grade of "C" in each course.
2. Have an institutional cumulative GPA of at least 2.50.
3. Have satisfactory communication skills as demonstrated by successful completion of ENGL 110 and ENGL 120 or ENGL 125 with a minimum grade of "C" in each course.
4. Have satisfactory mathematics skills as demonstrated by successful completion of MATH 103 with a minimum grade of "C."
5. Complete an oral interview with the discipline faculty.
6. Final approval of the discipline faculty is contingent upon their professional judgment following consideration of documentation and faculty assessment.

"With being a small campus, I have the opportunity to work in a research lab, which looks great on my resume for grad school, as well as future jobs, since I may potentially end up working in a lab after graduation. In larger schools it would be more difficult to get jobs such as a research assistant, but since this is such a small school, the opportunity is out there."

- Hanna N.
Chemistry Major

Chemistry - Minor

Required credits to graduate with this minor: 20-25

This minor provides students with the knowledge, skills, and techniques desirable for utilization in various areas in which chemistry may be used as a tool. This minor consists of a minimum of 20 semester hours including CHEM 121 and CHEM 122.

Core Requirements:

CHEM 121/L	General Chemistry I/Lab	4 SH
CHEM 122/L	General Chemistry II/Lab	4 SH
CHEM/L	Elective/Lab	4 SH
CHEM/L	Elective/Lab	4 SH
CHEM/L	Elective/Lab	4 SH

NOTE: 12 semester hours of approved chemistry electives to total a minimum of 20 semester hours.