

# Nebraska Wesleyan University

## Catalog 2021-2022

Major:

## Chemistry (B.S.)

The Bachelor of Science degree is for those who wish to emphasize their study of chemistry.

Students interested in chemical engineering can participate in the [Engineering Dual-Degree Program](#). Chemical Engineering students complete either a B.A. or B.S. degree in Chemistry at NWU and any remaining engineering program requirements at one of our participating schools of engineering.

For students interested in studying [pre-health](#), a program of study emphasizing a strong background in chemistry is available for students planning a future in medicine.

### Departments/Programs:

Chemistry

### Chemistry Major (B.S.\*\* , 47-48 hours)

Core Courses	46 hours
CHEM 1110 Chemical Principles I and CHEM 1110L Chemical Principles I Laboratory	4 hours
CHEM 1120 Chemical Principles II and CHEM 1120L Chemical Principles II Laboratory	4 hours
CHEM 2100 Organic Chemistry I and CHEM 2100L Organic Chemistry I Laboratory	4 hours
CHEM 2110 Organic Chemistry II: Synthesis and Mechanisms and CHEM 2110L Organic Chemistry II Laboratory	4 hours
CHEM 3090 Organic Chemistry III: Intermediate Organic Chemistry	2 hours
CHEM 3410 Biochemistry and CHEM 3410L Biochemical Methods	4 hours
CHEM 3510 Physical Chemistry I, Thermodynamics and Kinetics and CHEM 3510L Physical Chemistry Laboratory	4 hours
CHEM 3520 Physical Chemistry II, Quantum Chemistry and Spectroscopy and CHEM 3520L Physical Chemistry Laboratory	4 hours
CHEM 3620 Inorganic Chemistry and CHEM 3620L Inorganic Chemistry Laboratory	4 hours
CHEM 3440 Analytical Chemistry and Instrumental Analysis	4 hours
CHEM 4000 Introduction to Polymer Chemistry	3 hours
CHEM 4050 Advanced Organic Chemistry	4 hours
CHEM 4980 Chemistry Seminar	1 hour
Capstone	1-2 hours
CHEM 4950 Independent Study or CHEM 4960 Special Projects	1-2 hours

An approved supporting program of 27 hours selected from biology, computer science, modern languages, mathematics, and physics is required and may include one or more minors. [PHYS 1600 Principles of Physics I](#) or [PHYS 2000 General Physics I](#), [PHYS 1700 Principles of Physics II](#) or [PHYS 2100 General Physics II](#), [MATH 1600 Calculus I](#) and [MATH 1610 Calculus II](#) are required.

*\*\*This Chemistry major earns a B.S. degree. However, if a student has a first major that is associated with a different baccalaureate degree, the Chemistry major may serve as a second major for the degree associated with the first major (B.FA.,*

*B.M., B.S.N.). Note that if the first major is associated with a B.A. degree, there are different Chemistry major requirements for a B.A. degree.*