Nebraska Wesleyan University

Chemistry (B.S.)

Catalog

2022-2023

Program Description

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

1. 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.*