

Major:

## Chemistry (B.A.)

The Bachelor of Arts degree is for those who want a core of chemistry courses with a broader background in the liberal arts.

Students interested in chemical engineering can participate in the [Engineering Dual-Degree Program](#). Chemical Engineering students complete a B.A. 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.A. \*\*, 31-32 hours)

Core Courses	30 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 3510 Physical Chemistry I, Thermodynamics and Kinetics and CHEM 3510L Physical Chemistry Laboratory	4 hours
CHEM 3440 Analytical Chemistry and Instrumental Analysis	4 hours
One upper-level (3000-4990) chemistry course	3 hours
CHEM 4980 Chemistry Seminar	1 hour
Capstone	1-2 hours
CHEM 4950 Independent Study or CHEM 4960 Special Projects or CHEM 4800 Advanced Research	1-2 hours

An approved supporting program of 20 hours is required and may include one or more minors. [PHYS 1600 Principles of Physics I](#) or [PHYS 2000 General Physics I](#) and [PHYS 1700 Principles of Physics II](#) or [PHYS 2100 General Physics II](#) and [MATH 1600 Calculus I](#) are required, and [MATH 1610 Calculus II](#) is strongly recommended.

*\*This Chemistry major earns a B.A. 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.F.A., B.M., B.S.N.). Note that if the first major is associated with a B.S. degree, then the Chemistry major requirements for a B.S. degree must be met, or the student must earn two degrees.*