

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., 43-44 hours)

| Courses | |
|---|-----------|
| 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 | 3 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 4050 Advanced Organic Chemistry | 4 hours |
| CHEM 4980 Chemistry Seminar | 1 hour |
| Senior Comprehensive | |
| 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.