



STEM DIVISION CHEMISTRY

— FOUR-YEAR PLAN —

ABOUT

Chemistry includes the study of molecules, materials, matter, and energy. Fields as diverse as environmental, pharmaceutical, medicinal, agricultural, polymer and forensic chemistry all use similar instrumentation and chemical theory drawn from the main areas of study in chemistry: physical, organic, analytical, biochemistry, and inorganic chemistry.

At SNU you will personally use these instruments for lab experiments and research: UV-Vis spectrometers, ESI Mass spectrometer, FT-IR spectrometers, High Performance Liquid Chromatograph, multinuclear FT-NMR spectrometer, electrochemical probes, and molecular modeling software. We create a unique environment for you by reading the chemistry research literature together, connecting lab experiments to environmental and other real-world applications, solving problems and pursuing research individually and in collaborative teams.



DEGREE PLAN

***The courses listed are for this specific program and are in addition to the general education courses required for all students. See the reverse side or go to snu.edu/gen-ed for more information on those courses.*

YEAR 1

Gen Chemistry I + Lab
Gen Chemistry II + Lab
Calculus I (or Trigonometry if needed first)
Calculus II

YEAR 2

Organic Chemistry I + Lab
Organic Chemistry II + Lab
General Physics I for Scientists/Engineers + Lab
General Physics II for Scientists/Engineers + Lab

YEAR 3

Analytical Chemistry + Lab
Instrumental Analysis + Lab
Chemistry Seminar 1

YEAR 4

Physical Chemistry + Lab
Advanced Inorganic Chemistry
Chemistry Seminar 2
Chemistry Research

OTHER RECOMMENDED ELECTIVES

Chemical Kinetics
Biochemistry
Applied Math for Chemists
Intro to Computer Science
Quantum Mechanics

ADDITIONAL COURSES FOR STUDENTS GOING TO PHARM.D.

Cells and Systems + Lab
Microbiology + Lab
Physiology + Lab
Intro Psychology & Sociology



GENERAL EDUCATION

General Education forms the foundation of every student's academic journey at SNU. As a Christian liberal arts university, we are committed to equipping students with the knowledge, values, and skills essential for their development as both thoughtful Christians and engaged community leaders. Our General Education curriculum is intentionally designed to be both comprehensive and flexible—allowing students to pursue their individual interests while ensuring they graduate prepared for lifelong learning, service, and growth.

The General Education program consists of approximately 51 credit hours that introduce and develop important skills such as the:

- Importance of thinking critically and solving problems
- Ability to communicate effectively
- Appreciation of human creativity
- Importance of science and technology in the 21st century
- Power of social responsibility in our community
- Awareness of global diversity
- Role of our Christian faith in daily life

Students take at least one foundational course and one upper-level windows course in each of these areas.

Central to SNU's mission is the engagement of students in transformational learning experiences designed to explore what it means to seek truth together with a Christ-centered community of scholars.

YEAR 1

- Composition I & Composition II
- Introduction to Speech
- A foundation course in Social Responsibility
- A foundation course in Science & Technology
- Christian Faith & Life

YEAR 2

- Modern World
- Aesthetics
- A foundation course in Critical Thinking & Problem Solving
- Old Testament or New Testament Literature & Life

YEAR 3

- A windows course in Social Responsibility
- A windows course in Effective Communication
- A windows course in Science & Technology
- A windows course in Critical Thinking & Problem Solving

YEAR 4

- A windows course in Global Perspectives
- A windows course in Artistic Expression
- Foundations of Christian Belief