



STEM DIVISION BIOLOGY-CHEMISTRY

— FOUR-YEAR PLAN —

ABOUT

The SNU departments of Biology and Chemistry offer a broad introduction to modern science. Our courses range from microbiology to cadaver dissection and from biochemistry to analytical chemistry. The biology-chemistry curriculum includes a supporting background in mathematics, physics, and behavioral science. SNU has an excellent track record of mentoring and preparing students for medical school as well as graduate and professional programs.

At SNU, the student will personally use instruments for lab experiments and research such as UV-Vis, FTIR, multinuclear FT-NMR, and HPLC-ESI-Mass spectrometers, as well as PCR, RT-qPCR, and various microscopes. Students are encouraged to get involved in research and practical experiences either on the SNU campus or at our world-class biological field station in Costa Rica, the Quetzal Education Research Center (QERC), at which students can spend a semester studying abroad. In our uniquely designed program, students will read research literature together, connect lab experiments to medical and environmental applications, and solve problems 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
Organismal Biology + Lab
Cells & Systems + Lab
Calculus or Trigonometry

YEAR 2

Organic Chemistry I + Lab
Organic Chemistry II + Lab
Microbiology + Lab
Physics I + Lab
Physics II + Lab

YEAR 3

Analytical Chemistry + Lab
Biochemistry
Genetics + Lab
Cell & Molecular Biology
Adv. Human Physiology + Lab

YEAR 4

Origins
Adv. Human Anatomy w/ Cadaver Dissection
Chemistry Seminar
Other Biology or Chemistry elective



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