

Biotechnology | Bachelor of Science

STUDENTS
EARN A MINOR
IN CHEMISTRY
WITH THIS
DEGREE

The biotechnology field is far-reaching and ripe with opportunity. Built on a solid foundation of biology and chemistry, this innovative bachelor's degree program combines the study of applied molecular and cellular biology. Students will master a broad range of lab skills applicable to biology and biotechnology, including applied research skills at an advanced level that will prepare them for a career or graduate studies. Southern's biotech program offers in-demand courses such as bioinformatics and genomics. The degree also is an excellent choice for pre-med students.

PROGRAM FEATURES

Students generate hypotheses, design approaches to test them, and interpret the data from those tests to reach valid conclusions. Additionally, students develop oral and written communication skills relevant to professional positions in the biotechnology workforce. The program includes a number of course-embedded authentic research experiences, and research experience for undergraduates (REU's) in regional biotechnology companies is competitively available.

This program requires more chemistry and math than the B.S. and B.A. biology programs. Beyond the first year, the required biology courses are all molecular and cellular biology focused. Students have a required research internship experience. Biotech students participate in a required internship at a local company such as Alexion, Isoplexis, Quantum BioPower, The Jackson Laboratory, Synovel Laboratory, Archillion, and more.

For more information on program requirements, visit Catalog.SouthernCT.edu/undergraduate

CAREER OPPORTUNITIES

Upon graduation, students are equipped to pursue a career as a research associate in biotechnology or biopharma or to launch a career in life sciences. Possible careers include research scientist, beer and winemaker, pharmacologist, biostatistician, biotechnologist, forensic scientist, dentist, grant writer, marine biologist, patent attorney, high school teacher, museum curator, pharmacist, science policy expert, science writer/editor, veterinarian, zookeeper, and many more.

Some biotechnology B.S. graduates may enroll in graduate programs (M.S. or Ph.D.) in biotechnology or related fields such as molecular biology, microbiology, genetics, and biochemistry. They may also pursue advanced professional degrees such as M.D. (medicine), M.B.A. (business), or J.D. (law), with an emphasis on biotechnology issues.

FOR MORE INFORMATION

Undergraduate Admissions Office
501 Crescent Street, New Haven, CT 06515 | (203) 392-5644
Admissions@SouthernCT.edu
SouthernCT.edu/admissions/undergraduate



Hands-On Research Projects

As part of the major, students participate in two innovative national educational programs:

- **HHMI SEA-PHAGES** (*Science Education Alliance-Phage Hunters Advancing Genomics and Evolutionary Science*): This program starts with simple digging in the soil to find new viruses and progresses through a variety of microbiology techniques to complex genome annotation and bioinformatic analyses. The two-semester course is embedded in Genomics I and II.
- **Tiny Earth program**: Students roll up their sleeves and get digging again — this time for antibiotic-producing bacteria. SWI seeks to address the problem of antibiotic-resistant “superbugs” or bacteria, by having students isolate soil microorganisms that may produce new antimicrobial products.



Expect more. Be more.
Southern.

