Fostering the Next Generation of Connecticut Scientists

S.T.E.M. ... Incubating Ideas ... Seeking Solutions
Welcome to Southern!

❖ Committed STEM faculty; small class ratio
❖ STEM and pre-health advising
❖ Research projects; work closely with faculty
❖ Visit our research centers, state-of-the-art laboratories, and special facilities
❖ Learn more about major programs in the Ballroom
Science Technology Engineering Math

Biology

Chemistry

Computer Science

Earth Science

Environment, Geography and Marine Sciences

Mathematics

Physics

Psychology

Problem Solvers and Innovators of Tomorrow
BS, BA, BS with teaching certification and MS in Biology and BS in Biotechnology

- Small classes with individual attention
- Authentic research-embedded labs
- Faculty of active scientists committed to your academic success
- On and off campus Research opportunities

Undergraduate & Graduate Programs in Biology
Cutting edge courses in:
- Microbiology
- Genomics
- Biotechnology
- Bioinformatics
- Synthetic Biology

Results in a Chemistry Minor

Several courses in National educational & research programs such as the ‘Tiny Earth Community’ & the ‘HHMI SEA-PHAGES’ programs

Internships with regional Biotech companies.

Undergraduate Program in Biotechnology
A partnership between the City of New Haven and SCSU to grow interest and participation in bioscience education

Provides academic and experiential learning programs to position graduates for the 21st century workforce with focus on industry needs
Chemistry

- B.S. and B.A. in Chemistry
  - Teacher Certification Option
  - American Chemical Society Certification Option
- Concentration in Biochemistry:
  - Minor in Biology
  - Incorporates All Pre-Med Courses
- Concentration in Environmental Chemistry:
  - Focus on Marine and Environmental Studies
  - Interdisciplinary Degree
- “4+1” Accelerated B.S./M.S. program:
  - Two Year B.S./M.S. Theses

Undergraduate & Graduate Programs in Chemistry
Chemistry

- M.S. degree in Chemistry
- Professional Science Track:
  - Six Courses in Business Administration and Six in Chemistry
- Master’s Thesis Track:
  - Two Year Master’s Thesis and Six Chemistry Courses
- Comprehensive Exam Track:
  - Ten Chemistry Courses

- Research Opportunities with Faculty Mentors
- Hands-on Experience with Modern Instruments in Courses and Research:
  - NMR, LCMS, GCMS, Real Time PCR, IR, Microwave, and UV-Vis instruments
- Training with Modern Chemistry Software:
  - ChemDraw, Scifinder, Reaxys

Undergraduate & Graduate Programs in Chemistry
B.S. degree in Computer Science
B.S. degree in Computer Information Systems
Minor in Computer Science
M.S. degree in CS (SW development, Cybersecurity)
4+1 Accelerated B.S. M.S. track (Cybersecurity)
Data Science

❖ B.S. degree in Data Science (Spring 2020 launch)
  ❖ One of only two STEM-based B.S. programs in Connecticut
❖ Minor degree in Data Science

Joint Program between Math & Computer Science
B.S. degree in Mathematics
B.S. degree in Mathematics – Concentration: Applied
Minor in Mathematics
Post-Baccalaureate Teacher Certification
M.S. degree in Mathematical Education
Earth Science

Geology, Meteorology, Oceanography, Astronomy

- Bachelor of Science in Earth Science
- Bachelor of Science in Earth Science - Geology Concentration
- Bachelor of Science in Earth Science - Environmental Concentration
- Bachelor of Science in Earth Science 7-12 education with certification
- Bachelor of Arts in Earth Science
Earth Science

The Outdoors is our Classroom

Undergraduate Student Research
Environment, Geography, & Marine Sciences

- Environmental Problem Solving
- Interactions of Human, Physical and Biotic Systems
- Major in Environmental Systems and Sustainability Studies
  - Coastal Systems
  - Environmental Systems
  - Environmental Policy & Management
- Major in Geography (BA & BS)
  - Concentration in Geographic Information Science and Technology
- Minors
  - Environmental Studies
  - Marine Studies
  - GIS
  - Drone Technology

Undergraduate B.A. & B.S. Programs
Physics

- Degrees in Physics
  - B.S. General track
  - B.S. Engineering concentration
  - B.S. Certification track
  - B.A. degree
  - M.S. in Applied Physics
  - GCNT
- Conceptual, theoretical, experimental foundations
- Small classes, supportive learning community
- Research opportunities with state-of-the-art equipment in astronomy, bio-physics, condensed matter, materials science, optics, nanotechnology, nuclear & particle physics, physics education research

Undergraduate & Graduate Programs in Physics
B.S. in Physics: Engineering Concentration.

Core foundation in physics with science, engineering, and mathematics courses to provide broad technical education

Engineering capstone project

Internet access to state-of-the-art telescopes in Arizona, Hawaii, and Chile allowing for remote observing and data collection

Telescopes on the roof controlled by computers in the room for careful positioning and data collection and analyses
Offers opportunity for collaborative, interdisciplinary research and educational initiatives in micro- and nanotechnology and materials science.

Center builds on collaborations with Yale University, UCONN, and the Connecticut Community Colleges to create programs enhancing Science, Technology, Engineering, and Mathematics (STEM) education.

Education and Research in advanced materials
Psychology

- **B.S. in Psychology**, with tracks in:
  - Behavioral Neuroscience
  - Cognitive Science
  - Applied Psychology & Assessment
- Also offered:
  - B.A. in Psychology: General
  - B.A. in Psychology: Mental Health

- **Senior year research practicum**
  - Hands-on experience at research laboratories, biotechnology companies, state agencies
  - Work with Psych professors in ongoing research projects, including federally-funded work on autism and effects of alcohol exposure

- **Cognate courses** outside of Psychology
  - Choose from Biology, Chemistry, Computer Science, Communication Disorders, others

Psychology B.S. & B.A. Degree Programs
Questions and Answers