Fostering the Next Generation of Connecticut Scientists

S.T.E.M. ... Incubating Ideas ... Seeking Solutions

Southern Connecticut State University
SCSU

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

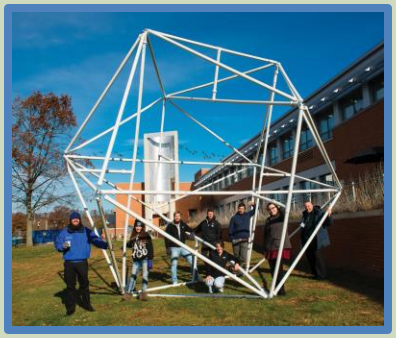
Biology

Chemistry

Computer Science

Earth Science

Environment, Geography and Marine Sciences



Mathematics

Physics

Psychology

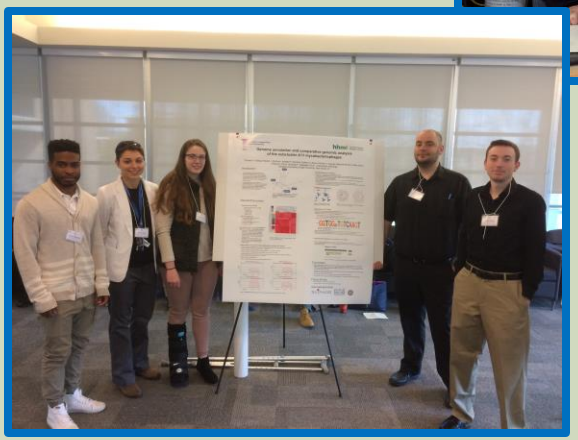
Problem Solvers and Innovators of Tomorrow

Southern Connecticut State University
SCSU

Biology

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

Southern Connecticut State University
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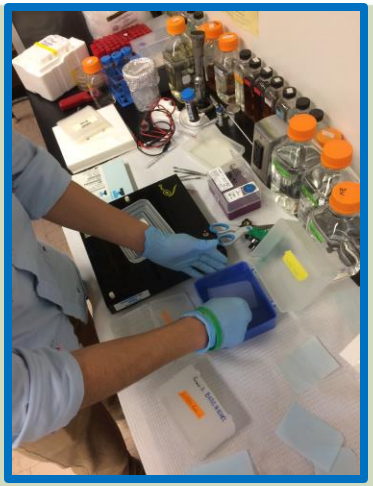
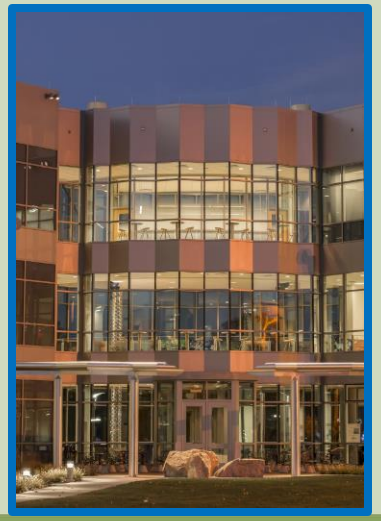
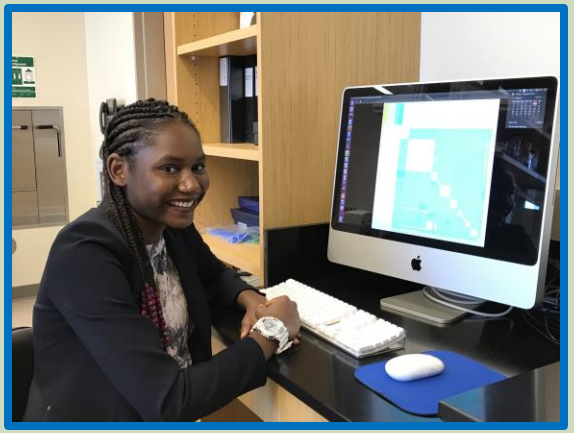
Biotechnology

- 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.





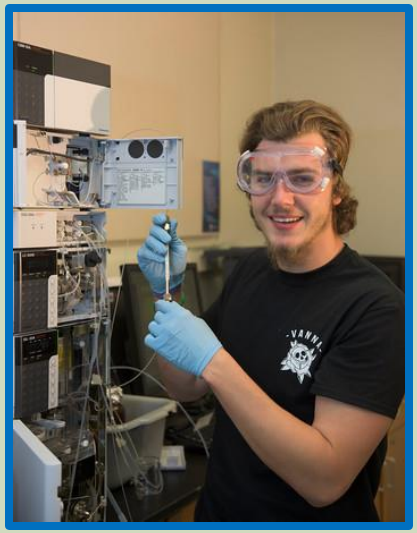


Bioscience Academic and Career Pathway

BioPath
Bioscience Academic
and Career Pathway

- 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



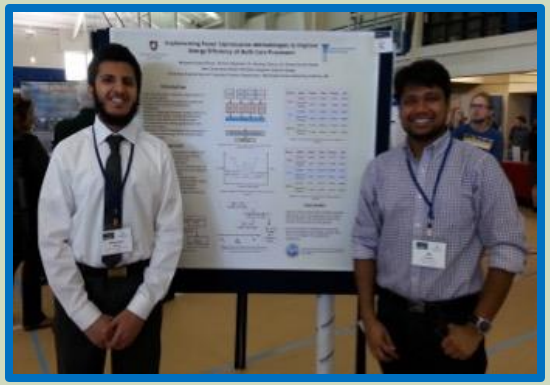
- B.S. and B.A. in Chemistry
  - Teacher Certification Option
  - American Chemical Society Certification Option
- Concentration in Biochemistry:
  - Minor in Biology
  - Incorporates All Pre-Med Courses
- Concentration in Environmental Chemistry:
  - Focus on Marine and Environmental Studies
  - Interdisciplinary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

Chemistry

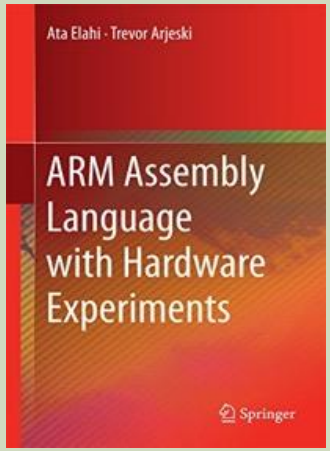
- M.S. degree in Chemistry
- Professional Science Track:
  - Six Courses in Business Administration and Six in Chemistry
- Master's Thesis Track:
  - Two Year Master's Thesis and Six Chemistry Courses
- Comprehensive Exam Track:
  - Ten Chemistry Courses

- 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

Computer Science

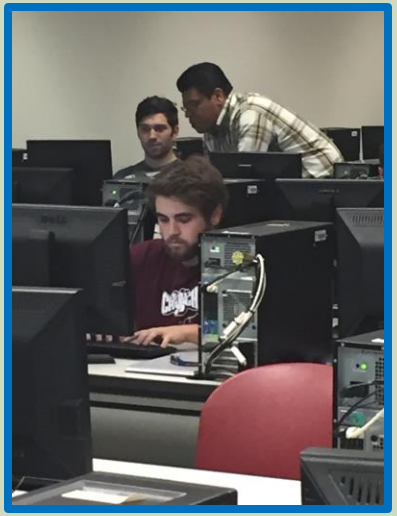


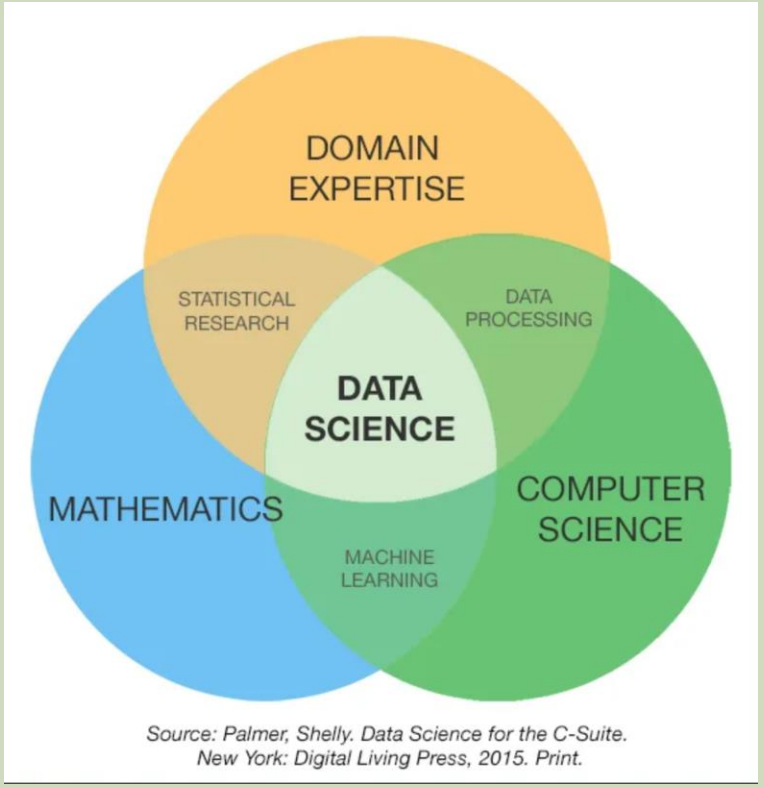
- B.S. degree in Computer Science
- B.S. degree in Computer Information Systems
- Minor in Computer Science
- M.S. degree in CS (SW development, Cybersecurity
- 4+1 Accelerated B.S. M.S. track (Cybersecurity)



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





Source: Palmer, Shelly. Data Science for the C-Suite. New York: Digital Living Press, 2015. Print.

Mathematics

- 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

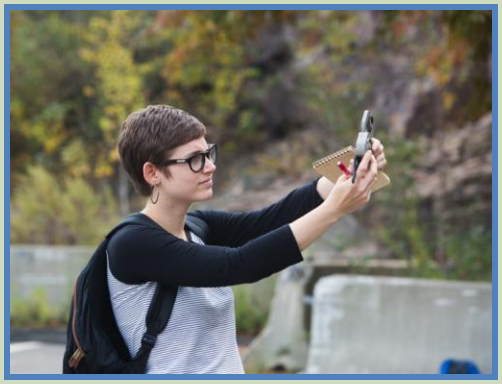
- Bachelor of Science in Earth Science
- Bachelor of Science in Earth Science - Geology Concentration
- Bachelor of Science in Earth Science - Environmental Concentration
- Bachelor of Science in Earth Science 7-12 education with certification
- Bachelor of Arts in Earth Science

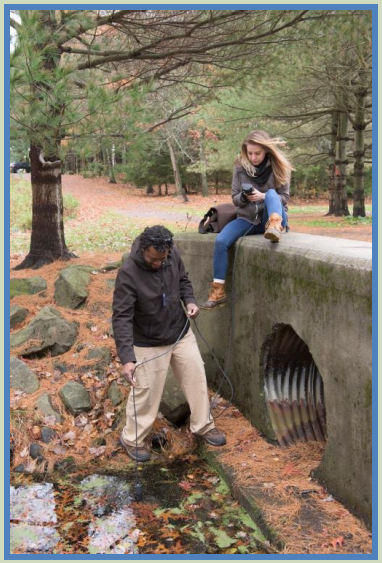
Earth Science B.S. & B.A. Degree Programs

Southern Connecticut State University
SCSU

Earth Science

The Outdoors is our Classroom





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

Southern Connecticut State University
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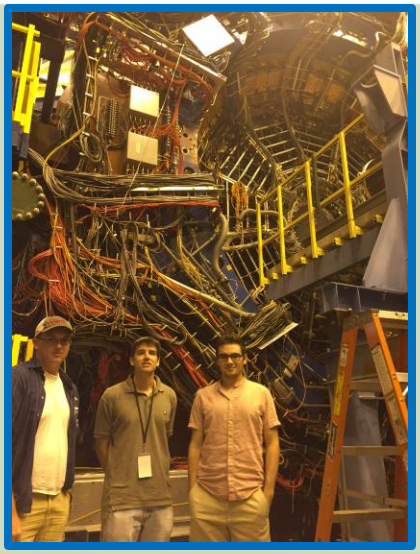
Werth Center for Coastal and Marine Studies

Faculty Mentored Student Research

Southern Connecticut State University
SCSU

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

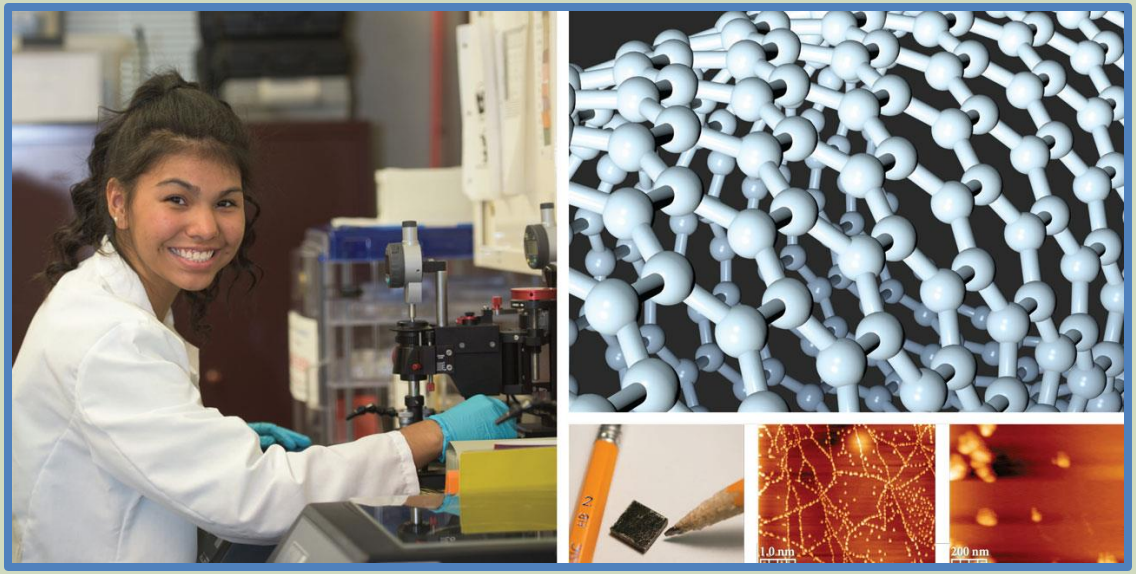
Engineering / Astronomy & Optic Research

- 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

CSCU Center for Nanotechnology

CSCU
CENTER FOR
NANO
TECHNOLOGY



- 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

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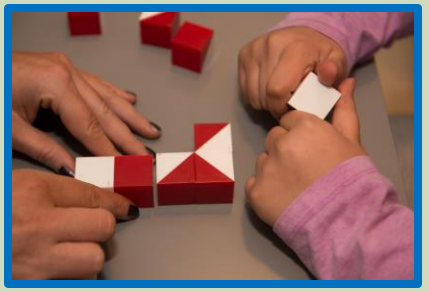
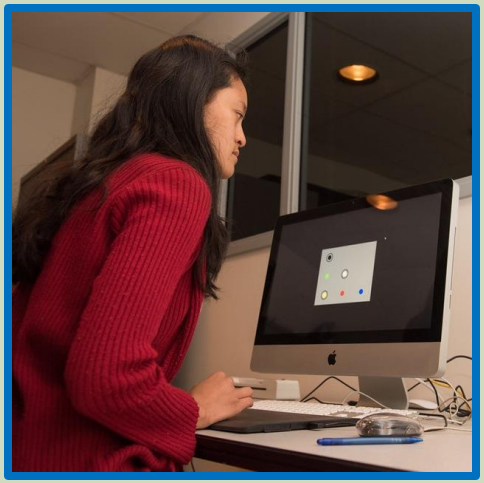
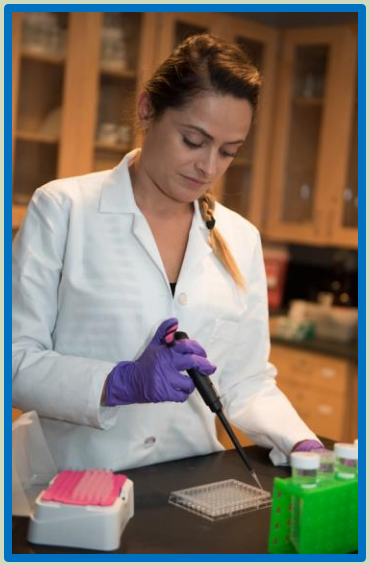
Psychology

- **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

Questions and Answers

https://bit.ly/2JHGuWD

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