PHYSICS

Bachelor of Science

Central to Understanding Universal Behavior.

The Central BS in Physics emphasizes in-depth inquiry into basic physical principles, analytical techniques, applications of physics, and critical thinking. The program prepares students for graduate study in fundamental and applied physics, or for positions in wide variety of STEM and other professional careers.

The Physics program requires a minor in any subject or a concentration in at least one of the following: Engineering Physics, Biology, Biomolecular Science, or Finance. Students in the program go on to graduate school for further study in physics, engineering, law school, medical school, and medical physics; to entry-level research and development positions in industry; and a host of other options. Central also offers a BS in Physics for Teacher Certification.

Program Features

- Offers varied optional concentrations for students seeking specific competencies in cutting edge interdisciplinary fields
- Unique undergraduate research opportunities that involve students in the high-impact practice of real-world research
- Research findings presented at conferences
- Opportunities to gain valuable skills to excel in graduate schools or the workplace
- Specialized tracks allow students to pursue education in individual interests while still earning employable skills
- Internship opportunities
- Financial aid and scholarships available
- Free on-campus child care available

DID YOU KNOW?

Central faculty are active members of the following august national Physics and science organizations: American Physical Society, Electrochemical Society, Materials Research Society, American Chemical Society, Optica, formerly OSA.

CENTRAL CONNECTICUT STATE UNIVERSITY

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Program Options

The program offers Concentration options in Engineering Physics, Finance, Biology, and Biomolecular Sciences

- **Engineering Physics:** Integrates intensive study of Physics, Engineering, and Mathematics to provide a strong applied and analytical skill-set for areas such as aerospace, materials science, nanotechnology, renewable energy systems, photonics, and microelectronics. Program prepares students for employment or graduate study in any of these areas of innovation.
- **Biology and Biomolecular Sciences:** Offers courses in the biological sciences making it one of the best preparations for medical school (Physics majors outperform pre-Med majors in MCAT tests). Students in the program also develop the high-level physical science and analytical training required for research and development at the frontiers of the study of biological systems, biotechnology, nanotechnology, biophysics, and medical physics.
- **Finance:** Physics, finance and economics have had a long history together. Many theories used in Finance and Economics were derived by physicists. For example, a co-recipient of the first Nobel Prize in Economic Science in 1969 was a physicist. Today, the world of Finance and Economics, from Wall Street to Insurance companies, seeks physicists and others with strong analytical skills, known as quants, to fill their need for quantitative analysis. In addition to the traditional career of physicists in research, education, and engineering, the Finance Concentration prepares students to work in financial institutions, or pursue graduate studies in Finance, Economics, and Law, and for careers in finance related areas.

Clubs

Central Physics Club organizes trips to conferences for participation and presentation by students. Central Physics students won numerous awards at the New England Section of the American Physical Society regional meetings for their research work and presentations.

Career Outlook

The BS in Physics allows graduates to be versatile as it opens a wide variety of employment and further professional development opportunities. Job titles of recent physics graduates who went directly into the workforce after the BS in Physics at Central include:

- **Research and Technical**
  - Research Assistant, Research Associate, Research Technician, Lab Technician/Assistant Scientist
- **Engineering**
  - Characterization technician, Systems Engineer, Electrical Engineer, Design Engineer, Mechanical Engineer, Project Engineer, Optical Engineer, Manufacturing Technician, Associate Engineer, Application Engineer, Development Engineer Process Engineer /Technician Product Engineer, Product Manager, Research Engineer, Quality/Test Engineer, Technical Services Engineer, Integration Engineer, Accelerator Operator
- **Business/Finance**
  - Business Analyst, Consultant, Project Manager, Investment Associate/ Trader
- **Computer Hardware/Software**
  - Software Engineer/ Developer, Programmer, IT Consultant, Systems Analyst, Technical Support Staff, Data Analyst/ Scientist
- **Education**
  - High School Physics Teacher, High School Science Teacher, Middle School Science Teacher, Instructor, Tutor

PROGRAM WEBSITE

ABOUT CENTRAL:
Central Connecticut State University is the largest university within the Connecticut State Colleges and Universities system. Founded in 1849, Central is also the state's oldest publicly funded university. Our campus is located in New Britain, Connecticut. Central is accredited by the New England Commission of Higher Education (NECHE).