

Physics

Program Highlights

- Emphasis on lab experience, working with faculty in their specialty areas
- Outstanding laboratory facilities and equipment
- Senior research – a requirement for all, rather than an option for just a few

Program Overview

- Physics major – preparation for graduate work
- Applied physics major – preparation for industry, Engineering
- Dual-degree program leading to applied physics and engineering degrees (typically five years)

Outcomes for our graduates

- Graduate school
 - Physics (U of Minn., U of NC, UW-Madison, Wash. State, Iowa State, Penn. State)
 - Engineering (Stanford, U of Minn., UW-Madison, Fla. Tech, Embry-Riddle)
- Military (Navy, National Guard)
- Business (software, theater, consulting)
- High-school teaching (France, St. Paul, Minn.)
- Industry (robotics, heating & ventilation)

A Sample of Courses

First and second year: Foundations of Physics I, II, III,
Modern Physics, Intermediate Labs

Third year: Mechanics, Electricity & Magnetism,
Advanced Labs

Fourth year: Quantum Mechanics, Thermodynamics &
Statistical Mechanics, Senior Research

Elective courses: Optics, Space Physics, Astrophysics,
Electronics, Nuclear Physics, Relativity

Study Abroad

The physics department encourages its students to take advantage of the outstanding study abroad opportunities available at CSB/SJU. Physics majors since 2000 have done semesters abroad in Australia, China, Costa Rica, Greece/Italy, Ireland, London, Spain

Internship Opportunities

- REU (Research Experience for Undergraduates) programs around the country.
- NASA Goddard Space Flight Center, Greenbelt, Md.
- Montana State University, Bozeman, Mont.
- University of Minnesota
- Lehigh University, Bethlehem, Pa.
- China Summer Research Exchange Program. Students work six weeks at Southwest University in Beibei, China, with a Chinese student and professor, then six weeks at CSB/SJU with professor and Chinese student.
- Summer student/faculty research at CSB/SJU

Faculty

Clayton Gearhart

(PhD: U of Minn., 1977) history of science, condensed matter

Jim Crumley

(PhD: U of MN, 2002) space physics

Tom Kirkman

(PhD: U of Wisconsin – Madison, 1982) theoretical physics

Dean Langley

(PhD: Washington State University, 1984) optics

Dan Steck

(PhD: U of Wisconsin – Madison, 1976) environmental and nuclear physics

Sarah Yost

(PhD: CalTech, 2004) astrophysics

Lab work is central to everything we do. If you decide to pursue a degree with us, you will spend valuable time in our labs. In addition to the required research project during your final year, our system will expose you to lab work with most of our faculty at some point during your studies.
