PHYSICS/COMPUTER SCIENCE

This major is intended for students with dual interests in physics and computer science who wish to complete the essential courses for both majors within four years. The foundation provided prepares students for further study in graduate school and for careers as scientists or engineers who will participate in the creation of the science and technology of the future.

BACHELOR OF SCIENCE (BS) GENERAL OVERVIEW

Thirteen lower-division courses:

- Advanced Principles of Physics I
- Avdanced Principles of Physics II
- Freshman Colloquium: Physics Discovery Series
- Introduction to Programming
- Data Structures and Object Oriented Design
- Discrete Methods in Computer Science
- Principles of Software Development
- Introduction to Algorithms and Theory of Computing
- Calculus I
- Calculus II
- Calculus III
- Mathematics of Physics and Engineering I
- Linear Algebra and Linear Differential Equations

Nine upper-division courses:

- Mechanics
- Electricity and Magnetism A
- Electricity and Magnetism B
- Introduction to Quantum Mechanics A
- Introduction to Quantum Mechanics B
- Introduction to Operating Systems
- Computer Organizational and Architecture
- Mathematics of Physics and Engineering II
- Senior Project

ACADEMIC OPPORTUNITIES

Society of Physics Students: SPS seeks to create a tight-knit community of those interested in physics and astronomy and to provide opportunities for students to attend lectures and take field trips to sites including the NASA Jet Propulsion Laboratory.

Women in Physics at USC: WIP organizes a two-day conference for undergraduate women in physics to promote an increased awareness of current research and career options in physics, greater familiarity with the graduate school experience, and resources for applying to and being successful in graduate school.

Senior Project: Students construct an original project using computer technology (in either hardware or software) and later apply it in the physics classroom or laboratory.