COMPUTER SCIENCE

About the Program

Division of Technology Faculty (https://spu.edu/academics/college-business-technology/faculty-staff?d=Technology)

Engineering and Computer Science Department Website (https://spu.edu/academics/college-business-technology/engineering-and-computer-science)

We offer a balanced program of studies in the theoretical and applied aspects of modern computing-related disciplines, informed by a Christian worldview. Our goal is to graduate students equipped for continued professional development and service.

Transfer students are welcome in our programs. Learn more about the quickest path to completion (https://spu.edu/academics/college-business-technology/engineering-and-computer-science/for-prospective-students/transfers) of a Computer Science major at the Engineering and Computer Sciences Department website.

Which is the right program for you? That depends on what *you* want to do with computers. Additional information on career paths in the computing disciplines can be found at the ACM Computing Degrees and Careers (http://www.acm.org/education/resources-for-grads) website.

Our Mission

We prepare diverse students to collaboratively solve complex engineering and computing challenges with competence, integrity, and humility to reach their potential and to serve God and society.

Majors

- Computer Science (BA) (https://catalog.spu.edu/undergraduate/college-schools/cbt-technology/computer-science/computer-science-ba/)
- Computer Science (BS) (https://catalog.spu.edu/undergraduate/college-schools/cbt-technology/computer-science/computer-science-bs/)

Minors

- Computer Science Minor (https://catalog.spu.edu/undergraduate/college-schools/cbt-technology/computer-science/computer-science-minor/)
- Interactive Computing and Art Minor (https://catalog.spu.edu/undergraduate/college-schools/cbt-technology/computer-science/interactive-computing-art-minor/)

Program Learning Objectives

Computer Science faculty have identified 12 primary Program Learning Objectives for students in our majors. Each of the courses in our curriculum is designed to help students achieve specific learning objectives that will help them progress toward the goal of becoming competent, responsible, and effective computing professionals.

1. Attainment of problem-solving skills, especially those required to analyze, design, and implement solutions involving the use of a computer.
2. Ability to program computers in a current programming language and use modern software and hardware engineering tools.
3. Understanding of modern computing systems and the theoretical aspects of computer science.
4. Demonstration of the necessary math and science skills to solve computing problems.
5. Reliability and responsibility in meeting commitments.
6. Ability to manage projects within multiple constraints and to meet multiple goals.
7. Ability to successfully lead and work in teams with diverse membership.
8. Effective oral and written communication of technical information using a variety of techniques.
9. Awareness of the ethical and social impacts of technology, and the ability to take responsible action.
10. Articulation of Christian perspectives on personal, societal, technical, and theological issues.
11. Preparation for continued learning in a rapidly changing discipline.
12. Ability to locate, analyze and apply information on current events and new technologies obtained from a wide variety of sources and experiences.

Internship or Professional Experience Requirement

All Computer Science majors are required to participate in an approved engineering-related internship with industry or another career entity, OR complete an approved certification.

Internships

- Your internship must include a minimum of 200 hours of work. In most cases, you will be paid by the employer.
- Normally, students complete internships during the summer between their junior and senior years.
- The Engineering and Computer Science Department will provide information to help you find internships, but you are individually responsible for locating and completing an appropriate internship.

Certifications

A current list of approved certifications is available from the engineering faculty.