Computer Systems Engineering

The Department of Computer Science & Engineering
(907) 786-1900

The Department of Computer Science and Engineering offers a Bachelor of Science (BS) in Computer Systems Engineering (BS CSE), and a Minor in Computer Systems Engineering. The baccalaureate program is fully accredited. Students are introduced to principles of mathematics and physics during the first two years of study along with introductory courses in fundamentals of computer hardware and programming. The third and fourth years consist of upper-division courses applicable to computer systems along with computer systems engineering electives in the area of the students’ interests. Students complete a project-oriented capstone course where they will apply their knowledge in computer systems engineering to solve challenging problems. Students also take courses on written and oral communication, humanities, social sciences and fine arts to improve their communication skills and to put their profession into a broader societal context.

Accreditation

The Bachelors of Science in computer systems engineering, electrical engineering and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET (http://www.abet.org/).

Program Objectives

- Graduates are successful practitioners of computer engineering in a variety of industries, government agencies and research/academic institutions, serving the state of Alaska as well as national/international needs.
- Graduates exhibit high standards regarding ethical behavior and social responsibility.
- Graduates successfully engage in lifelong learning experiences such as graduate education, short courses, technical talks, conferences, training programs, community groups, and writing and/or publishing papers.

Preparation

While in high school, students can prepare for entering and succeeding in the university engineering program. In order to be the best prepared, students should complete the following high school courses with a minimum grade of C:

- Algebra - 2 years
- Chemistry - 1 year
- English - 3 years
- Physics - 1 year
- Trigonometry - 1/2 year

Students successfully completing the above courses should be prepared to enroll in the first year of courses that count toward the engineering degree. Students without the above preparatory courses will need to take equivalent university courses before taking some of the first year of courses that count toward the engineering degree.

Programs of Study

Bachelor of Science

- BS in Computer Systems Engineering (http://catalog.uaa.alaska.edu/undergraduateprograms/coeng/computersystemsengineering/bs-computersystemsengineering/)

Minor

- Minor in Computer Systems Engineering (http://catalog.uaa.alaska.edu/undergraduateprograms/coeng/computersystemsengineering/minor-computersystemsengineering/)