The Department of Computer Science and Engineering offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate major that prepares students for a variety of professional and technical careers in business, industry, and government, or for graduate work leading to advanced degrees. In addition, the department offers courses for students from other fields that will use computer science as a tool in their own areas.

The department offers two baccalaureate degrees in computer science: the Bachelor of Arts (BA) in Computer Science and the Bachelor of Science (BS) in Computer Science. The BS includes an emphasis on science and mathematics while the BA allows the student to complement the computing curriculum with a broad spectrum of courses from multiple disciplines. The BS is recommended for those seeking to pursue a graduate degree in computer science.

Both the BA and the BS prepare the student to pursue a professional career in the computing field. The core computing curriculum is identical for both degrees and differ in the required support courses. The core of both degrees emphasizes broad fundamental principles of computer science and teaches the student the necessary skills to develop solutions using current or future technology. The core topics include computer programming, systems organization, software engineering, databases, and theory. Upon completion of the core topics, the student may select electives that explore specific areas of computer science, such as computer graphics, architecture, or intelligent systems.

Accreditation

The Bachelor of Science in Computer Science program is accredited by the Computing Accreditation Commission of ABET (http://www.abet.org/).

Program Objectives

The computer science program has adopted the following educational program objectives for the Bachelor of Arts and the Bachelor of Science degrees in computer science. Graduates with these degrees will achieve some or all of these objectives within five years of graduation:

Make contributions to the computing profession and apply computational solutions to solve real-world problems.

1. Successfully adapt to changes in the field of computer science.
2. Meet or exceed the expectations of their employers and professional mentors as computer science professionals and advance in their career.
3. Be admitted to and successfully complete advanced degree programs.
4. Contribute to the Alaska economy through their professional accomplishments in computing.

Programs of Study

Bachelor of Arts

- BA in Computer Science (http://catalog.uaa.alaska.edu/undergraduateprograms/coeng/computerscience/ba-computerscience/)

Bachelor of Science

- BS in Computer Science (http://catalog.uaa.alaska.edu/undergraduateprograms/coeng/computerscience/bs-computerscience/)

Minor

- Minor in Computer Science (http://catalog.uaa.alaska.edu/undergraduateprograms/coeng/computerscience/minor-computerscience/)