The Bachelor of Science in Computer Science (BS) in Computer Science (CS) at the University of Alaska Anchorage teaches students the fundamental principles of computer science and topical issues in computing so they may pursue advanced degrees or enter the workplace as productive, competent software development or information technology professionals. The program seeks to further the profession of computer science through professional activities and public service within the local community and beyond. Faculty engage in and disseminate research to advance the development of computer science and provide innovative technological solutions to address the needs of modern society.

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

Admission Requirements
Complete the Admission Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/).

Special Considerations
- Students who intend to enroll in this degree of study are strongly encouraged to complete the following content in high school with a grade of C or better: Trigonometry (1/2 year), Physics (1 year), Algebra (2 years), Chemistry (1 year), and English (3 years). Insufficient preparation may increase the number of semesters required to complete the degree.
- A student who is unable to earn a minimum grade of C in any course offered by the College of Engineering may retake that course up to two additional times. A student who fails to earn a minimum grade of C on the second attempt will be required to meet with an academic advisor and a member of the College of Engineering professional advising staff to develop a plan for improvement of academic performance before continuing in the program. Failure to earn a minimum grade of C on the third attempt will result in removal from the program. Re-admittance requires a letter of appeal from the student with an explanation of any mitigating factors and how these factors have been addressed. Re-admittance is subject to approval by the department chair of the program.

Graduation Requirements
- Complete the General University Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureaterequirements/).
- Complete the General Education Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureaterequirements/gers/).
- The 3 credit Tier 1 Quantitative Skills GER will be met and exceeded by the following degree requirements: MATH A251 or MATH A252.
- The 7 credit Natural Science GER will be met and exceeded by the following degree requirements: (PHYS A123 & PHYS A123L) OR (PHYS A211 & PHYS A211L), and (PHYS A124 & PHYS A124L) OR (PHYS A212 & PHYS A212L).
- For 3 credits of Tier 2 Humanities, choose PHIL A305.
- All computer science majors must take a standardized test of knowledge of computer science approved by the CS faculty for the purpose of evaluating program effectiveness. There is no minimum score required for graduation. This test will normally be taken during the senior year.
- Complete the following major requirements with a minimum grade of C in all CSCE, MATH and STAT courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSCE A101</td>
<td>Introduction to Computer Science</td>
<td>3</td>
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<tr>
<td>CSCE A201</td>
<td>Computer Programming I</td>
<td>4</td>
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<tr>
<td>CSCE A211</td>
<td>Computer Programming II</td>
<td>4</td>
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<tr>
<td>CSCE/EE A241</td>
<td>Computer Hardware Concepts</td>
<td>4</td>
</tr>
<tr>
<td>CSCE A248</td>
<td>Computer Organization and Assembly Language Programming</td>
<td>3</td>
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<tr>
<td>CSCE A311</td>
<td>Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSCE A321</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCE A331</td>
<td>Programming Language Concepts</td>
<td>3</td>
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<tr>
<td>CSCE A351</td>
<td>Automata, Algorithms and Complexity</td>
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<td>CSCE A360</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCE A365</td>
<td>Computer Networks</td>
<td>3</td>
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<tr>
<td>CSCE A401</td>
<td>Software Engineering</td>
<td>3</td>
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<tr>
<td>CSCE A465</td>
<td>Computer and Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCE A470</td>
<td>Computer Science and Engineering Capstone Project</td>
<td>3</td>
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</table>

Required Support Courses
- MATH A251 Calculus I 4
- MATH A252 Calculus II 4
- MATH A261 Introduction to Discrete Mathematics 3
- PHYS A123 College Physics I 4
- & A123L and College Physics I Laboratory 1
- or PHYS A211 General Physics I 4
- & A211L and General Physics I Laboratory
- PHYS A124 College Physics II 4
- & A124L and College Physics II Laboratory 1
- or PHYS A212 General Physics II 4
- & A212L and General Physics II Laboratory
- STAT A307 Probability and Statistics 4
- ENGL A313 Professional Writing 3
- or ENGL A414 Research Writing
- or ENGL A478 Public Science Writing
- PHIL A305 Professional Ethics 3
Bachelor of Science in Computer Science

Upper-Division Courses ² 12

Total 86

¹ Must be taken in addition to General Education Requirements.
² Complete an additional 12 upper-division credits in CSCE, MATH (excluding MATH A420 and MATH A495A), or STAT. Nine of these credits must be in CSCE courses. A maximum of 3 credits of CSCE A395, a maximum of 3 credits of CSCE A495, and maximum of 6 credits of CSCE A498 may be applied to degree requirements.

A minimum of 120 credits is required for the degree, of which 42 credits must be upper-division.

Honors in Computer Science

The BS in Computer Science recognizes distinguished achievement by conferring programmatic honors in computer science. In order to receive honors in computer science, a student must meet the following requirements:

• Meet the requirements for Graduation with Honors (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/academicstandardsregulations/graduation/).
• Meet the requirements for a Bachelor of Science in Computer Science.
• Earn a minimum grade point average of 3.50 in the major requirements.