

Bachelor of Arts in Computer Science

Sample Plan

The academic plan below is one pathway through the degree/certificate. It includes all requirements, taking into account recommendations from program faculty. Each student's plan may vary according to their initial course placement (<http://catalog.uaa.alaska.edu/academicpoliciesprocesses/academicstandardsregulations/courseplacement/>), intended course load, additional majors and/or minors, and their placement into required prerequisite courses. Any change in the plan below can have an unforeseen impact on the rest of the plan. **Therefore, it is very important to meet with your academic advisor to verify your personal academic plan.**

Please review the following terms, definitions, and resources associated with the sample academic plan below.

- Each course in the far left column links to a pop-up bubble with a course description, prerequisite requirements, and associations with university requirements. For example, if a course fulfills a general education requirement, you will see that in the pop-up bubble.
- **GER:** indicates a General Education Requirement (<http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureaterequirements/gers/>). GERs that also count toward degree/certificate requirements appear as a specific course in the plan. For these courses, "GER" is not indicated explicitly in the table, but if you click on the course, you will see the course's GER status in the pop-up bubble.
- **Program Elective:** indicates a specific course selection determined by program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Elective:** indicates an open selection of 100-400 level university courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate.
- **Upper Division Program Elective:** indicates a specific 300-400 level course selection determined by the program faculty to fulfill a degree/certificate requirement. Students should seek assistance from their academic advisor.
- **Upper Division Elective:** indicates an open selection of 300-400 level courses to fulfill elective credits needed to meet the minimum total credits toward the degree/certificate. These courses must be upper division in order to meet General University Requirements for the particular degree/certificate type.

First Year

Fall	Credits
CSCE A101 Introduction to Computer Science	3
MATH A221 Applied Calculus for Managerial and Social Sciences ¹	3-6
or MATH A251 or Calculus I	
or MATH A251F or F.A.T. Calculus I	

WRTG A111 Writing Across Contexts	3
GER Oral Communication Skills	3
Elective	3
Credits	15-18

Spring

CSCE A201 Computer Programming I	4
MATH A261 Introduction to Discrete Mathematics	3
GER Fine Arts ²	3
GER Natural Sciences w/ Lab	4
GER Written Communication Skills (200-level)	3
Credits	17

Second Year

Fall

CSCE A211 Computer Programming II	4
CSCE A241 Computer Hardware Concepts	4
GER Humanities ²	3
GER Natural Sciences	3
Elective	3
Credits	17

Spring

CSCE A248 Computer Organization and Assembly Language Programming	3
CSCE A311 Data Structures and Algorithms	3
CSCE A360 Database Systems	3
ENGL A313 Professional Writing	3
or ENGL A414 or Research Writing	
or ENGL A478 or Public Science Writing	
STAT A253 Applied Statistics for the Sciences	4
or STAT A307 or Probability and Statistics	
Credits	16

Third Year

Fall

CSCE A351 Automata, Algorithms and Complexity	3
CSCE A365 Computer Networks	3
GER Social Sciences	3
Upper Division Program Elective	3
Elective	3
Credits	15

Spring

CSCE A321 Operating Systems	3
CSCE A331 Programming Language Concepts	3
GER Social Sciences	3
Upper Division Program Elective	3
Elective	3
Credits	15

Fourth Year**Fall**

CSCE A401	Software Engineering	3
PHIL A305	Professional Ethics	3
Upper Division Program Elective		3
Elective		3
Elective		3
Credits		15

Spring

CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
Upper Division Program Elective		3
Elective		3
Credits		12
Total Credits		122-125

¹ MATH A221, MATH A251, and MATH A251F have prerequisites.

² Choose a course that also fulfills the Alaska Native-Themed GER and/or the Diversity & Inclusion GER.