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.

Course	Title	Credits
First Year		
Fall		
CSCE A101	Introduction to Computer Science	3
MATH A221 or MATH A251 or MATH A251F	Applied Calculus for Managerial and Social Sciences [1] or Calculus I or F.A.T. Calculus I	3-6
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		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 or ENGL A414 or ENGL A478	Professional Writing or Research Writing or Public Science Writing	3
STAT A253 or STAT A307	Applied Statistics for the Sciences or Probability and Statistics	4
	Credits	**16**
Third Year		
Fall		
CSCE A351	Automata, Algorithms and Complexity	3
CSCE A365	Computer Networks	3
GER Social Sciences		3
Elective		3
Elective		3
	Credits	**15**
Spring		
CSCE A321	Operating Systems	3
CSCE A331	Programming Language Concepts	3
GER Social Sciences		3

Elective		3
Upper Division Program Elective		3
	Credits	**15**
Fourth Year		
Fall		
CSCE A401	Software Engineering	3
PHIL A305	Professional Ethics	3
Elective		3
Upper Division Program Elective		3
Upper Division Program Elective		3
	Credits	**15**
Spring		
CSCE A465	Computer and Network Security	3
CSCE A470	Computer Science and Engineering Capstone Project	3
Elective		3
Upper Division Program 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.*