

Associate of Science Transfer in Computer Science

CATALOG DRAFT

Are you interested in a career as a software developer? Or one in machine learning or data science? Maybe you are interested in learning how to solve brand new problems using computation as a tool. A Computer Science or Software Engineering degree allows you to develop the skills you will need.

Chemeketa's Computer Science program offers a two-year program that articulates to four-year bachelor's degree programs in these areas. At Chemeketa, you can earn an Associate of Science Transfer in Computer Science (AST-CS) degree. This degree is accepted by most public universities in Oregon. Students who complete the degree and enroll in a participating university are ensured a two-year path to finishing a bachelor's degree.

AST-CS Degree outcomes:

- Develop software using both structured and object-oriented paradigms that meets the requirements of a written specification.
- Explain the software development lifecycle and the specific tools and processes used to create software.
- Design, analyze, and implement algorithms to solve computational problems using various data structures as problem-solving tools. These data structures must include arrays, stacks, queues, linked lists, trees, and hash tables.

Degree options:

There are two versions of the AST-CS degree: the Core cluster and the Systems cluster. The Core cluster is accepted by WOU, SOU, and EOU. The Systems cluster is required for transfer to OSU, PSU, and UO.

Both clusters use the same course list for the first year but are different in the second year. The second year of the Systems cluster requires additional computer science, math, and a sequence of science courses. These extra requirements prepare students for the demands of schools with a greater focus on engineering and research.

Because the first year is the same in both tracks, you do not need to know which university you want to transfer to right away. However, you will need to make this decision by the start of your second year so you can complete the right set of courses. Students are encouraged to work with a university transfer advisor to determine which path to take.

Associate of Science Transfer – Computer Science

You may earn an associate of science degree by successfully completing the required courses and at least 90 credit hours. You must complete all required courses with a grade of "C-" or better to earn the degree. As some universities require computer science and/or math grades higher than a C- grade, it is best to check with an advisor of the school you may be thinking of transferring to obtain their specific requirements.

Common First Year (Complete for either Core or Systems cluster)

Course	Title	Credit Hours
	Arts and Letters course * +	3+
	Arts and Letters course * +	3+
COMM111	Fundamentals of Public Speaking	4
CS160	Introduction Computer Science	4
CS161	Computer Science 1	4
CS162	Computer Science 2	4
MTH111	College Algebra	5
MTH112	Trigonometry	5
MTH251	Differential Calculus	5
WR121	Academic Composition	4
	Social Science course ** +	3+
	Social Science course ** +	3+

* Arts and Letters courses must be chosen from the list of approved Arts and Letters courses in the AAOT degree.

** Social Science courses must be chosen from the list of approved Social Science courses in the AAOT degree.

+ At least one Arts and Letters or Social Science course must also be an approved Cultural Literacy Course in the AAOT degree.

Second Year – Core Cluster (for transfer to: WOU/SOU/EOU)

Course	Title	Credit Hours
CS260	Computer Science 3—Data Structures	4
MTH252	Integral Calculus	5
WR122	Argument Research & Multimodal Composition	4
	Lab Science course*	4+
	Lab Science course*	4+
	Electives to reach 90 credits **	

* Lab Science courses must be selected from BI, CH, GEO, GS, or PH prefixes and have a lab component.

** Courses must be 100 level or higher. Although any college-level courses may be used to satisfy this requirement, students should pick courses that satisfy additional requirements at their transfer target and best complement their degree. Consult with an advisor for assistance picking appropriate electives.

Second Year - Systems Cluster (for transfer to: OSU/PSU/UO)

Course	Title	Credit Hours
CS205	Systems Programming Architecture	4
CS260	Computer Science 3—Data Structures	4
MTH231	Discrete Mathematics 1	4
MTH232	Discrete Mathematics 2	4
MTH252	Integral Calculus	5
WR227	Argument Research & Multimodal Composition	4
	Science sequence course 1*	4+
	Science sequence course 2*	4+
	Science sequence course 3*	4+
	Electives to reach 90 credits **	

* Science sequence courses must be a three-term sequence consisting of one of the three options: PH211-213, or CH221-223, or BI211-213.

** Courses must be 100 level or higher. Although any college-level courses may be used to satisfy this requirement, students should pick courses that satisfy additional requirements at their transfer target and best complement their degree. Consult with an advisor for assistance picking appropriate electives.