ASSOCIATE OF SCIENCE TRANSFER (AST) COMPUTER SCIENCE

Program Description

The Computer Science program is designed to provide students with a quality education that motivates students to reach their full potential through computer programming, and computer logic skills necessary for transfer, career success, and lifelong learning.

The Associate of Science, Computer Science (AST-CS) follows Oregon state Major Transfer Maps (MTMs), which represent a streamlined path for students transferring from an Oregon community college to an Oregon university, who know which major/bachelor's degree program they want to pursue. In contrast to other statewide transfer tools that prioritize university general education requirements (i.e. AAOT and ASOT), MTMs specify clear course-taking paths necessary for on-track progress towards a specific major/bachelor's degree, with a guarantee of transfer from any Oregon community college to any Oregon public university. For more information see Major Transfer Maps: Memoranda of Understanding. (https://www.oregon.gov/highered/about/transfer/Documents/Transfer-Resources/Transfer%20MOUs/FINAL%20CS%20MOU%204.28.22.pdf)

Program Outcomes

Students who complete the Computer Science AST will have the knowledge, skills, and abilities to:

1. Acquire new information and adapt to changes in the computer technology field
2. Apply a logical and systematic approach to solve problems
3. Use written, oral, and visual interpersonal skills to communicate with individuals or small groups
4. Design and implement computer software applications
5. Evaluate and compare different algorithms applicable to a given task

Career Considerations

Computer science knowledge is built upon a foundation that allows graduates to explore a wide range of career possibilities. Popular computer science careers include programming and software development, computer hardware innovation and development, testing mathematical algorithms, managing the technological infrastructure of an organization, and digital security.

Program Course Requirements

Course	Title	Credits
First Year		
First Term		
AI 120	Intro to AI [2]	4
CS 160	Orientation-Computer Science	4
MTH 111Z	Precalculus I Functions (or higher)	4
WR 121Z	Composition I	4
	Credits	16
Second Term		
CS 161	Computer Science I	4
MTH 112Z	Precalculus II Trigonometry	4
MTH 231	Elem Discrete Math I	4
WR 227Z	Technical Writing [3]	4
or WR 122Z	or Composition II	
	Credits	16
Third Term		
ART 206	History of Western Art III [1]	4
CIS 275	Intro to Database Mgmt Sys I [2]	4
CS 162	Computer Science II	4
MTH 232	Elem Discrete Math II	4
	Credits	16
Second Year		
First Term		
CIS 195	Authoring for the Web I [2]	4
CS 260	Data Structures	4
MTH 251	Calculus I	5
PH 211	General Physics w-Calculus I [4]	5
	Credits	18
Second Term		
COM 218Z	Interpersonal Communication [1]	4
HST 202	History of United States II [1]	3
MTH 252	Calculus II	4
PH 212	General Physics w-Calculus II [4]	5
	Credits	16
Third Term		
COM 111Z	Public Speaking	4
CS 205	Syst Programming Architecture	4
PH 213	General Physics w-Calculus III [4]	5
SOC 206	Social Problems-Issues [1]	3
	Credits	16
	Total Minimum Credits	**98**

[1] Arts & Letters and Social Science courses can be swapped with other approved courses, however one must have a cultural literacy component. See advisor for a list of course options.

[2] These are recommended Computer Science specific electives

[3] Students who transfer to EOU/SOU/WOU must take WR122Z. Students who transfer to OSU/PSU/UO must take WR227Z.

[4] Choose one (1) sequence: (BI 211, 212, 213) or (CH 221, 222, 223) or (PH 211, 212, 213).

Advising Notes

- Oregon colleges may have different preferences, please meet with your advisor to determine the right path for you.
  - Faculty Advisor: John Blackwood, 541-440-7686, John.Blackwood@umpqua.edu
  - Faculty Advisor: Vincent Yip, 541-440-7886, Vincent.Yip@umpqua.edu
- All courses must be completed with a grade of "C" or better, a minimum cumulative GPA of 2.00 is required at the time the AST is awarded. Many CS programs have competitive admission processes, minimum GPA and grades may not be high enough to guarantee admission into any transfer institution.
- If students vary from the suggested sequence, then prerequisites and term availability must be watched closely because class time conflicts may arise, and/or desired courses may not be available.