



Associate Degree  
for Transfer<sup>SM</sup>

## COMPUTER SCIENCE FOR TRANSFER (AS-T)



This program is designed to prepare students for transfer to a California State University (CSU) with the intent of earning a B.S. degree in Computer Science. The coursework provides a strong foundation in programming methodology, programming skills, and computer organization.

Most careers in computer science require a bachelor's degree, and some require a graduate-level degree. Computer science careers include software engineering, computer engineering, computer systems analysis, systems programming, mobile application development, artificial intelligence, robotics, and simulation. Computing technology now is used in most fields. Because of this, a wide range of jobs are open to people trained in Computer Science. Employment opportunities are expected to remain very strong.

A total of 33 units are required to fulfill the major portion of this degree. Students must also complete the Intersegmental General Education Transfer Curriculum (IGETC) for CSU admission requirements (see the "General Education Requirements and Transfer Information" section of the catalog). Students should speak with a counselor to verify that the requirements for this degree have been met. In addition, students planning to transfer to San Diego State University should consult with a counselor.

The following is required for the AS-T in Computer Science for Transfer degree:

1. Minimum of 60 semester or 90 quarter CSU-transferable units.
2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework.
3. Minimum of 18 semester or 27 quarter units in the major.
4. A grade of "C" or higher or "Pass" in all courses required for the major.
5. Certified completion of the Intersegmental General Education Transfer Curriculum (IGETC) pattern; see Degree Requirements and Transfer Information section for more information. Note: If following IGETC, IGETC-CSU must be followed for admission to a CSU.

## Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Define and apply current Software Engineering design patterns, algorithms, and data structures to produce efficient, well-engineered software applications.
- Apply problem-solving skills and the knowledge of computer science to solve real-world problems.

- Define and demonstrate the concept of object oriented programming and object oriented design.

## Associate in Science Degree Requirements

Code	Title	Units
<b>Core Curriculum</b>		
BIO-230	Principles of Cellular, Molecular and Evolutionary Biology	4
CS-165	Assembly Language and Machine Architecture	4
CS-181 or CS-182	Introduction to C++ Programming Introduction to Java Programming	4
CS-240	Discrete Structures	3
CS-281 or CS-282	Intermediate C++ Programming and Fundamental Data Structures Intermediate Java Programming and Fundamental Data Structures	4
MATH-180	Analytic Geometry and Calculus I	5
MATH-280	Analytic Geometry and Calculus II	4
PHYC-201	Mechanics and Waves	5
<b>Units in the Major</b>		<b>33</b>
Double-Counted Units		10
Plus General Education Requirements (IGETC only) <sup>1</sup>		37
<b>Total Units</b>		<b>60</b>

<sup>1</sup> General Education Requirements (IGETC only). (<https://catalog.gcccd.edu/cuyamaca/degree-requirements-transfer-information/>)