



Computer Studies

Degree

Computer Science, Associate of Science for Transfer

Certificate

CompTIA, Certificate of Achievement

Computer Science

Associate of Science Degree for Transfer

The Associate in Science in Computer Science for Transfer degree (AS-T in Computer Science) is designed to provide students a clear transfer pathway to the CSU computer science major and completion of the computer science baccalaureate degree, to grant guaranteed admission to a CSU to a similar major, with junior standing, and the ability to complete their remaining requirements within 60 semester or 90 quarter units. Students will take courses in computer science and related fields that will provide the theoretical and practical knowledge necessary to work in a variety of computer related fields such as Software Engineering, Computer Engineering, Computer Systems Analysis, Network Engineering, Cloud Computing, Mobile Application Development, Computer Support, Computer Information Systems, Database Administration, Network Security, and Web Development.

Requirements for AA-T or AS-T degrees:

The completion of 60 semester units that are eligible for transfer to the California State University, including the following:

- The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University – Breadth Requirements.
- A minimum of 18 semester units in a major area of emphasis, as determined by the district.
- The obtainment of a minimum grade point average of 2.0.
- The completion of all courses required for the major with a 'C' or better. A 'P' (Pass) grade is not acceptable for courses in the major.

Program Learning Outcomes

Upon successful completion, the student will:

- identify the appropriate software development technologies, algorithms, and scientific and mathematical principles to apply to a given program.
- effectively design and implement programming constructs, including functions, control structures, arrays/lists, classes and objects for a given programming problem.
- effectively implement the appropriate data structures using the principles and techniques of object-oriented programming for a given programming problem.

Total Units: 28

Required Courses

Course #	Name	Units
COMP B11	Programming Concepts and Methodologies I	3.0
COMP B12	Programming Concepts II	3.0
COMP B13	Computer Architecture & Organization	3.0
COMP B14	Discrete Structures	3.0
MATH B6A	Analytic Geometry/Calculus I	4.0
MATH B6B	Analytic Geometry/Calculus II	4.0
PHYS B4A	Mechanics and Wave Motion	4.0
PHYS B4B	Heat, Electricity, Magnetism	4.0

Category

Units in Major	28.0
CSU GE Breadth	37.0-39.0
Possible double counting of GE's	6.0-7.0
Degree Total	60.0

CompTIA

Certificate of Achievement

The program curriculum prepares students interested in learning computer concepts and technologies; preparing them for employment in many areas of Information Technology. Each course in the program approaches topics in a vendor-neutral (more generalized) fashion so that they can easily be applied to specific industries. The curriculum is designed to support students seeking to pass CompTIA's certification exams. CompTIA is an internationally recognized certification program for the information technology industry. Acquiring such certifications will assist students in finding employment in Information Technology and Computer Infrastructure related fields.

Some of these fields include:

- Network and Systems Administrators
- Computer Network Architects
- Computer Network Support Specialists
- Computer Support Specialists
- Information Security Analysts
- Network and Computer Systems Administrators
- Information Security Analysts
- Computer Hardware Support

To Achieve the Certificate of Achievement

Upon successful completion of the core requirements with a 'C' grade or better in each course, the student will be awarded a CompTIA Certificate of Achievement.

Program Learning Outcomes

Upon successful completion, the student will demonstrate:

- an understanding of computer hardware and software terminologies and digital infrastructure troubleshooting techniques.
- the ability to install and administer Operating Systems.
- an understanding of networking infrastructure concepts and security.
- an understanding of those technologies that aid in the support of computer and communications infrastructures.

Total Units: 19

Required Courses

Course #	Name	Units
COMP B31	CompTIA Network Security - Security+	3.0
COMP B32	CompTIA Linux+	3.0
COMP B33	CompTIA Networking Technologies - Network+	3.0
COMP B84	CompTIA A+	4.0

Elective Courses (select 6 units from the following):

COMP B2	Introduction to Computer Information Systems	3.0
COMP B10	Introduction to Programming Methodologies using Python	3.0
COMP B11	Programming Concepts and Methodologies I	3.0
COMP B21	Database Systems – Design & Structured Query Language (SQL)	3.0