

COMPUTER SCIENCE



Associate Degree
for Transfer
*A Degree with a Guarantee.*SM

Student Transfer Achievement Reform (STAR) Act (SB1440)

Associate in Science Transfer Preparation* (Major Code: 01185)

Most careers in computer science require a bachelor's degree, and some require a graduate-level degree. The coursework for this associate degree prepares students who plan to transfer and major in computer science with the lower-division computer programming and mathematics coursework required by most colleges and universities. The program of study listed below is for students interested in the programming or software aspect of computer science. It is designed to provide a strong foundation in mathematics, programming methodology and skills, and computer organization.

Program Student Learning Outcome

- Recognize and appropriately apply Software Engineering design patterns, algorithms, and data structures to produce efficient, well-engineered software products.

The following is required for all AA-T or AS-T degrees:

- Completion of minimum 60 semester or 90 quarter units of transferable degree applicable courses.
- Minimum overall grade point average (GPA) of at least 2.0 in all CSU transferable coursework.
- Minimum 18 semester or 27 quarter units in major or area of emphasis with a minimum grade of "C" (or "Pass") for each course in the major.
- Completion of the California State University General Education (CSU GE) Breadth pattern or the Intersegmental General Education Transfer Curriculum (IGETC) pattern. For more information, refer to the catalog section, "Certificate of Achievement (<http://catalog.swccd.edu/certificates-certifications-degrees-csuuc-requirements/certificates/certificate-achievement/>)" under Graduation, Certificates, and Degree Requirements.

Code	Title	Units
Required Core		
MATH 130	INTRODUCTION TO COMPUTER PROGRAMMING	4
MATH 140	DATA STRUCTURES AND ALGORITHMS	4
MATH 230	COMPUTER ORGANIZATION AND ARCHITECTURE	4
MATH 250	ANALYTIC GEOMETRY AND CALCULUS I	5
MATH 251	ANALYTIC GEOMETRY AND CALCULUS II	4
MATH 265	DISCRETE STRUCTURES	3
PHYS 270	PRINCIPLES OF PHYSICS I	3
PHYS 271	PRINCIPLES OF PHYSICS LABORATORY I	1

BIOL 211	INTRODUCTION TO CELL AND MOLECULAR BIOLOGY**	4
Total Units		32

* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Career and Transfer Connections. See catalog Transfer Courses Information (<http://catalog.swccd.edu/student-success-support-program/student-services-and-college-services/other-services/transfer-courses/>) section for further information.

** PHYS 272/273 or CHEM 200 may be substituted for BIOL 211. Please keep in mind that many transfer institutions require a full year of Physics. For San Diego State University specifically, one year of Physics is required for admission. **You must complete PHYS 272/273 in place of BIOL 211 if you plan to transfer to SDSU.**