Associate in Science in Computer Science for Transfer 2021-2022

The Associate in Science in Computer Science for Transfer (AS-T Computer Science) prepares students to transfer into the CSU system. Please consult a counselor regarding specific course requirements for your transfer institution. Completion of the Associate in Science in Computer Science for Transfer (AS-T Computer Science) also provides guaranteed admission with junior status to the CSU system although does not guarantee acceptance to a particular campus or major.

Upon completion of this degree (AS-T Computer Science), students will be well-versed in the use of standard computer control structures to solve problems and develop algorithms. They will have developed skills in writing programs that utilize functions as a method of program organization and control. Additional areas of emphasis will include objects, object-oriented programming, data structures, and abstract data types. Computer science students will also obtain knowledge of computer architecture and organization. The Computer Science curriculum also requires the student to have significant skills in mathematics and the applications of those skills to real world problem solving

Learning Outcome(s):
Students will know how to use computer science software.

Required Core (29 units)	Units
Computer Science 121, Programming Concepts	**3**
Computer Science 131, Data Structures Concepts	**3**
Computer Science 129, Introduction to Computer Organization	**4**
Computer Science 140, Discrete Structures for Computer Science	**3**
Mathematics 180, Single Variable Calculus I -OR-	**4**
Mathematics 180H, Honors Single Variable Calculus I	4
Mathematics 185, Single Variable Calculus II	**4**
Physics 217, Engineering Physics I	**4**
Physics 227, Engineering Physics II	**4**
	Total 29

* Note: Only IGETC (Plan C) will be accepted toward completion of the general education portion of this degree. Unlike other Associate Degrees for Transfer, CSU-GE (Plan B) completion will not be accepted for this degree. (An Oral Communication course, IGETC Area 1C, must be completed in order to meet CSU admission requirements.)

California Community Colleges offer Associate Degrees for Transfer (ADT) to the CSU. These include Associate in Arts (AA-T) or Associate in Science (AST-T) degrees. These are designed to provide a clear pathway to a CSU major and baccalaureate degree. California Community College Students who are awarded an AA-T or AS-T degree are guaranteed priority admission with junior standing to a CSU campus in a program that is deemed "similar" to their community college major. The student is not guaranteed admission to a particular campus or major. Students who have been awarded an AA-T or AS-T are able to complete their remaining requirements for a 120-unit baccalaureate degree at a CSU campus within 60 semester or 90 quarter units.

Santa Ana College offers numerous AA-T and AS-T degrees. To find out which CSU campuses accept each degree, please meet with a SAC counselor or visit www.icangotocollege.com. **An AA-T or AS-T degree may not be the best option for students intending to transfer to a particular CSU campus, or to a university that is not part of the CSU system**. Current and prospective community college students are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs.

Other four-year universities participating in the ADT program include Historically Black Colleges and Universities, fully online and out-of-state universities and independent colleges and universities in California. A complete list can be found here: https://cccco-media.imgix.net/CCC-Transfer-Flat-File-10.11.21.pdf Consult with a SAC counselor and review each campus website for their participation details.

Requirements
Student completion requirements for the associate degree for transfer:
1. 60 semester or 90 quarter CSU transferable units. At least 12 of the units must be earned at Santa Ana College.
2. The California State University General Education-Breadth pattern (CSU GE Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
Note: The ADT can be awarded to students completing the UC version of IGETC, but completion of this pattern will not satisfy CSU admission requirements.
Students pursuing an ADT in Chemistry or Biology, must complete CSU GE for STEM or IGETC for STEM as specified in the SAC catalog.
3. A minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district (see Instructional Programs portion of the catalog).
4. Obtainment of a minimum grade point average (GPA) of 2.0. (Some majors may require a higher GPA)
5. Earn a grade of C or better (C minus is not acceptable) or Pass in all courses required for the major or area of emphasis.

Santa Ana College currently offers the following Associate in Arts and Associate in Science for Transfer degrees:
• Administration of Justice
• Anthropology
• Art History
• Biology
• Business Administration
• Chemistry
• Communication Studies
• Computer Science
• Early Childhood Education
• Economics
• Elementary Teacher Education
• English
• Film, Television and Electronic Media
• Geography
• Geology
• History
• Hospitality Management
• Journalism
• Kinesiology
• Law, Public Policy, and Society
• Mathematics
• Music
• Nutrition
• Philosophy
• Physics
• Political Science
• Psychology
• Sociology
• Spanish
• Studio Arts
• Theatre Arts

Course Substitutions and Reciprocity, Policy and Procedures
Students who have completed courses at another California community college, a regionally accredited institution and/or completed an external exam such as AP, CLEP, or IB may apply the coursework or exam results toward AA-T/AS-T major requirements as follows:
1. A course with a C-ID designation which is completed at another California community college will be substituted for a SAC course that meets an Associate Degree for Transfer (ADT) major requirement designated with the same C-ID number. SAC departmental approval is not required.
2. A course without a C-ID designation which is completed at a regionally accredited institution, other than a California community college, will be reviewed by SAC discipline faculty. Course-to-course substitution will be granted based on discipline faculty determination of comparability to a SAC course with the approved C-ID designation for the given ADT. Course-to-course substitution will be granted in accordance with the state-wide C-ID descriptor when the SAC course does not have an approved C-ID designation, but a statewide C-ID descriptor exists. When no such descriptor exists, course substitution will be based on discipline faculty determination of comparability to a SAC course included on the ADT.
3. Students who have completed an external examination such as AP, CLEP, and IB are granted course credit toward ADT major requirements as listed in the SAC catalog. (Students should be aware that AP credit may be awarded/counted differently by the transfer institution.)
4. A course completed at another California community college that is approved as part of an associate degree for transfer will be applied to the corresponding Santa Ana College Associate Degree for Transfer (ADT) in the corresponding SAC ADT area. Courses completed at other California community colleges must be part of the ADT at the time the student completed the course. Courses completed at other CCCs prior to ADT approval will be "grandfathered".
5. A course with a C-ID designation which is completed at another California Community College, but does not meet an Associate Degree for Transfer (ADT) major requirement at the college where completed or match a SAC C-ID number, can be applied to the ADT if the C-ID number is included in the statewide Transfer Model Curriculum (TMC) template. The course will be applied to the degree based on the location of the C-ID number on the TMC. SAC departmental approval is not required.