



# AST-Computer Science for Transfer Degree 23-24

## Recommended Plan of Study - Counseling

All courses with a + sign indicate a pre-requisite or co-requisite

**DRAFT (Pending Catalog Publishing & State Approval)**

GP

Term 1 (Summer: Max. 15 units, 12 units recommended)		Units	Term 4 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units
(UC) Elective		1	CS 140+, Assembly Language & Computer Architecture		3
#COMM 101 (CSU Only)	1c IGETC	3	*PHYS 110+, General Physics	5A &	4
	3A/H IGETC	3	#SOC 110	4 IGETC	3
# Recommended	Total	7	Ethnic Studies (beg. 23-24)	7 IGETC	3
			#(SPAN 101 is a Pre-req for SPAN 102)(UC only) if needed (5)	Total	13
Term 2 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units	Term 5 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units
CS 120 or CS 121 or CS 122, Programming & Algorithms		3	CS 150+, Discrete Structures		3
#MUSC 102 or 103 or 107	3A IGETC	3	BIOL 110+ or BIOL 120+ or CHEM 110+ or PHYS 120+		5
MATH 150+	2 IGETC	5	#HIST 110 or 111	3H IGETC	3
ENGL 101+	1a IGETC	3	#POLS 101	4 IGETC	3
	Total	14	Include LOTE #SPAN 102+ (UC only) if needed (5 units)	Total	14
Term 3 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units	<b>Transfer or Graduate</b>		
MATH 160+, Calculus & Analytic Geometry: Elect. (Transfer required)		4			
CS 130+ or CS 131+ or CS 132+, Data Structures		3			
#BIOL 104	5b IGETC	3			
#ENGL 103	1b IGETC	3			
	Total	13			
<b>Grand Total: 61</b>					

Take Summer classes if needed to complete the program in a timely manner.

The state requires all students to have a Comprehensive Educational Plan. Make a counseling appointment as soon as enrollment is established on any term. Come by the Counseling Center or call. Online Counseling is available: <https://www.avc.edu/student-services/counseling>

Required Courses:	Units	Recommended Workshops for Transfer Students
CS 120 or CS 121 or CS 122, Programming & Algorithms	3	Transfer Students (those planning to transfer to a four-year university after attending AVC): You are encouraged to attend the following workshops while at AVC:
CS 130+ or CS 131+ or CS 132+, Data Structures	3	* Transfer Pathway Workshop (Term 1 or 2 or ASAP)
CS 140+, Assembly Language & Computer Architecture	3	* CSU/UC Application Workshop (approx. 1 year prior to transfer)
CS 150+, Discrete Structures	3	* Learning Center Workshops
MATH 150+, Calculus & Analytic Geometry (IGETC 2)	5	
MATH 160+, Calculus & Analytic Geometry	4	
PHYS 110+, General Physics (IGETC 5A & 5C)	4	
BIOL 110+, General Molecular Cell Biology or	4-5	
BIOL 120+, Gen. Organismal, Ecological & Evolutionary Biol. or		UC-bound Transfer Students (in addition to above):
CHEM 110+, General Chemistry or		*TAG Workshop
PHYS 120+, General Physics		*PIQ Workshop

**Units Required for Major: 29-30**

other requirements for degree  
IGETC Pattern 36-39  
UC Transferrable Elective Units to reach Degree Total 0

**Minimum Units Required 60**

\*Courses denoted with an asterisk will fulfill the completion requirements for both the major and general education.

**General Education Requirements:** Complete IGETC.

**\*\*LOTE: Language Other than English**

**Electives:** The remaining number of units (up to a minimum of 60) are considered electives. Any course that has already been counted toward (1) the general education requirements, or (2) the major, cannot be used as an elective. Any course with a designation of "CSU" at the end of a course description can be used as an elective for a CSU transfer and a "UC" designation for a UC school.

**All transfer Degrees are a guarantee of admission to the CSU system (not a specific campus) and a path of admission to the UC system.**

### New to Former Courses

- CS 120 \*(Formerly CIS 161/173)
- CS 121 (Formerly CIS 111)
- CS 122 (Formerly CIS 177)
- CS 130+ (No Former Course)
- CS 131+ (Formerly CIS 113)
- CS 132+ (No Former Course)
- CS 140+ (Formerly CIS 123)
- CS 150+ (Formerly CIS 121)

**\*\* ADTs do NOT allow for combined course substitutions.**

## AST-Computer Science for Transfer Degree 23-24

### Recommended Plan of Study - Counseling

Computer science is the study of the theory and methods of processing information in digital computers, the design of computer software and hardware, and the applications of computers. Courses cover programming fundamentals, data structures, discrete mathematics, and computer architecture, along with specific programming languages. The Associate in Science in Computer Science for Transfer degree is offered for those students desiring a major in computer science at a California State University. The Associate in Science in Computer Science for Transfer (AS-T in Computer Science) degree is to provide students with foundational knowledge of computer science, to enhance their problem solving skills, sharpen their critical thinking, and the opportunity to seamlessly transfer to a California State University in advanced standing as a Computer Science major. Additionally, the degree can prepare students in areas of science and engineering. Program Learning Outcomes include the following:

1. Design, create and test a program in a high-level, object-oriented, programming language based on a given set of specifications.
2. Design, create and test a program in assembly language based on a given set of specifications.

3. Solve common problems in the Binary and Hexadecimal numbering systems.

**Advisory:** A condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program.

**Prerequisite:** A condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program. Prerequisites are enforced and a student will be blocked from enrolling or involuntarily dropped after enrolling if the student does not meet the stated prerequisite. A student must complete a course prerequisite with a satisfactory grade of A, B, C or P (pass).

**Corequisite:** A condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course. Corequisites are enforced and a student will be blocked from

**Grade Point Average Requirement:** An overall grade point average (G.P.A.) of 2.0 ("C" average) is required by AVC and the CSU system. The UC system requires a minimum of a 2.4 G.P.A. and significantly higher to be competitive.

**Double Counting:** While a course might satisfy more than one general education requirement, it may not be counted more than once for these purposes. A course may be used to satisfy both a general education requirement and a major or area of emphasis requirement.

**Residency:** Minimum of 12 units completed at AVC with a minimum of 9 of those units completed from the certificate/major. (credit earned by examination will not be included in these 12 units) Title 5, Section 54000: <http://ccr.oal.ca.gov>.

**Requirements for Two or More Associate Degrees:** To be eligible for multiple associate degrees, a student must have completed all of the graduation requirements for each degree.

**Transfer:** Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center or the Counseling Center and consult with a counselor as soon as possible to develop a plan of studies. Additional preparation for the major information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: [www.assist.org](http://www.assist.org)

The "Catalog Rights Policy" sets forth the criteria used for determining the degree requirements under which students may graduate. Please refer to the AVC Catalog for a detailed description or consult with a counselor.