

# AST-Computer Science for Transfer Degree 24-25



## ABOUT THIS MAJOR

The Associate in Science in Computer Science for Transfer (AS-T in Computer Science) degree is to provide students with a 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. For more information, visit the [Mathematics, Sciences, and Engineering](#) division.

### TO EARN A DEGREE A STUDENT MUST COMPLETE THE FOLLOWING:

- [1] Completion of 60-semester units
- [2] Completion of General Education Requirements
- [3] Minimum grade point average of 2.0
- [4] A C or better in all courses required for the major

**\*\*This degree may only be earned by completing the (IGETC) requirements\*\***

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>.

### AST - Computer Science [Total Units 29-30 units]

Programming Language: select one of the following program language groupings. (6 units)	
<b>C/C++ Programming:</b> CS 120 - programming and Algorithms in CS 130- Data Structures using C/C++	6
<b>OR</b>	
<b>Java Programming:</b> CS 121 Programming and Algorithms in Java CS 131-Data Structures using Java	6
<b>OR</b>	
<b>Python Programming:</b> CS 122- Programming and Algorithms in Python CS132- Data Structures using Python	6

Complete all the following: (19 units)	
CS 140- Assembly Language and Computer Architecture	3
CS150 - Discrete Structures	3
MATH 150 - Calculus and Analytic Geometry	5
MATH 160 - Calculus and Analytic Geometry	4
PHYS 110 - General Physics	4

Choose one of the following: (4-5 units)	
BIOL 110 - General Molecular Cell Biology	5
BIOL 120 - General Organismal, Ecological & Evol Biol	5
CHEM 110 - General Chemistry	5
PHYS 120 - General Physics	4

New CS to Former CIS Courses	
<b>**ADTS do not allow for combined course substitutions**</b>	
CS 120 (formerly **CIS 161/173)	CS 121 (formally CIS 111)
CS 122 (formally CIS 177)	CS 131 (formally CIS 113)
CS 140 (formally CIS 123)	CS 150 (formally CIS 121)
<b>Counseling note:</b>	
<ul style="list-style-type: none"> <li>Choosing a computer program language option (C/C++, Java, Python) may vary by transfer school(s).</li> </ul>	
<b>**Consult with Counselor regarding Math Placement**</b>	
<b>Mathematics Calculus Sequence and prerequisites:</b>	
MATH 135 →MATH140→ MATH 150→MATH 160→MATH 220, MATH 250, MATH 230. (Trigonometry) (Precalc) ( Calc 1) (Calc 2) (Linear Alg.) ,( Diff.Eq.) , ( Calc 3)	

## RECOMMENDED PATHWAY: AST - Computer Science

The Recommended Plan of Study is determined by the discipline faculty. All Program Electives for the Major and [#] General Education Courses are recommended only. Except for ENGL 101, you can make other selections for the area if you choose (See back page for options).

- [\*] = Courses will fulfill the completion requirements for Major & Gen Ed I
- [#] = recommended courses may select other options.
- Electives are courses that count toward your credits for graduation, but not specific to degree of study.
- Take classes in **Summer** or **Intercession** if needed to complete your degree in a timely manner!
- IGETC GE transfer pathways: CSU - UC - PRIVATE - OUT OF STATE - OR UNSURE
- IGETC GE PATTERN: 2yrs HS LOTE or IGETC LOTE 101 & 102 Requirement (UC ONLY)
- Fall/Spring: Max 19 units, Summer: Max 15 units, 12-15 units recommended.

SUMMER TERM 1	
Course	Units
IGETC- AREA 3A	3
IGETC-AREA 1C: #COMM 101 (CSU ONLY)	3
<b>Total Units</b>	<b>6</b>

TERM 1	
Course	Units
Programing Language: CS 120 or CS 121 or CS 122	3
IGETC GE Area 2 : * Math 150	5
IGETC- AREA 3 ARTS	4
IGETC- AREA 1A: English 101	3
<b>Total Units</b>	<b>14</b>

TERM 2	
Course	Units
Programming Languages:CS 130 or CS 131or CS 132	3
Math 160	4
IGETC- AREA 5B: #BIOL 104	3
IGETC-AREA 1B: #ENGL 103	3
<b>Total Units</b>	<b>13</b>

TERM 3	
Course	Units
CS 140	3
IGETC- AREA 5A :* PHYS 110	4
IGETC -AREA 4: #POLS 101	3
IGETC- AREA 4: #SOC 110	3
<b>Total Units</b>	<b>13</b>

TERM 4	
Course	Units
CS 150	3
BIOL 110 or BIOL 120 or CHEM 110 or PHYS 120	4-5
IGETC GE AREA F: #ENGL 257	3
IGETC- AREA 3A/3B: # HIST 107,108,110,111	3
Transferable Elective	1
<b>Total Units</b>	<b>14-15</b>

COUNSELING NOTE SECTION		
<b>Prerequisite:</b> If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade to enroll in the next course. A satisfactory grade is a grade of "A," "B," "C" or "P". Students who enroll in classes for which they do not meet the prerequisites will be involuntarily dropped. Students will be notified of this involuntary drop. Title 5, Section 55200(d)		
AVC 24-25 CATALOG: <a href="#">ACADEMIC POLICIES</a>		
INFORMATION and RESOURCES		
<a href="#">Tutoring Assistance</a>	<a href="#">Career Center</a>	<a href="#">AVC Student Health Services</a>
<a href="#">Transfer Center</a>	<a href="#">Office of Students with Disabilities</a>	<a href="#">Palmdale Center</a>
<a href="#">Basic Needs</a>	<a href="#">Financial Aid</a>	<a href="#">Counseling Division</a>

## TRANSFER BEGINS DAY 1

The State requires ALL STUDENTS to have a Comprehensive Education Plan. You MUST make a counseling appointment as soon as enrollment is established to receive your plan. Stop by the Counseling Center or call 661-722-6300 x 6338 to schedule an appointment.

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TRANSFER OPTION - MIN GPA 3.0 [CSU - UC - PRIVATE - OUT OF STATE - OR UNSURE]				
24-25 IGETC PLAN [Intersegmental General Educational Transfer Curriculum]				
Completion of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) may satisfy lower division general education requirements for students who transfer from Antelope Valley College to a campus in either the California State University or University of California system. The course requirements for all areas must be completed before the IGETC can be certified. All courses must be completed with grades of "C" or better and may not be used in more than one area. Legend: ( ) = Newly Approved, <span style="color: blue;">Effective Fall 2024</span>				
GE AREA	COMPLETED	IN PROGRESS	NEED	Advising Form Effective Fall 2024 - Summer 2025
<b>AREA 1: ENGLISH COMMUNICATION</b> CSU - 3 courses required, one from each group 9 semester or 12 quarter units UC - 2 courses required, one each from groups (A) and (B) 6 semester or 8 quarter units				
1A				Group A English Composition: ENGL 101, (101H)
1B				Group B Critical Thinking: ENGL 102,(102H), 103 (103H); PHIL 201
1C				Group C Oral Communication (CSU ONLY): COMM 101,(101H)
<b>AREA 2: MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING</b> 1 course, 3 semester or 4 quarter units				
2A				MATH 110, 115, (115H), 116, 124, 128, 140, 148, 150, (150H),160, 220, 230, 250
<b>AREA 3: ARTS AND HUMANITIES</b> 3 courses, 9 semester units or 12 quarter units At least one course from 3A, one from the 3B, and one additional course from either 3A or 3B				
3A				ARTS: ART 100, 101, (101H),102, 103, 104, 106; DA 101; ENGL 235; FTV 101, 107, 108, 201, 203; MUS 101,(101H),105; MUSC 102, 103, 107, 108; (109); THA 101,(101H), 110, 225
3B				HUMANITIES: CHIN 102; COMM 114, 217; ENGL 221, 222, 225, 227, 230, 231, 235, 242, 253,(253H) 256, 257, 259, 265, 279;
3A or 3B				FREN 102, 201, 202, 203; FTV 201, 203, 251; GER 102, 201, 202; HIST 101, 102, 104, 105, 107,(107H), 108,(108H), 110, (110H), 111,(111H) 113, 115, 119; LATN 102, 201; PHIL 105, (105H),106, 108, 109; PHOT 107; SPAN 110SS, 201, 202, 203, 210SS, 220SS; THA 239, (239H)
<b>AREA 4: SOCIAL AND BEHAVIORAL SCIENCE</b> 2 courses, 6 semester units or 8 quarter units. Courses shall be completed in at least 2 different disciplines.				
4				AJ 206; ANTH 102, 103, 110, 112,(112H),140; BUS 212; CFE 102, 103; ECON 100, 101,(101H), 102,(102H), 110; DFST 105, 106 ,110;GEOG 105, 106, 110; HIST 101, 102, 104, 105, 107,(107H) 108,(108H), 110, (110H),111,(111H), 113, 114, 116, 118, 119; POLS 101,(101H) 103, 200, 202, 203;
4				PSY 101, (101H),200, 201, 212, 230, 232, 233, 234, 235, 236; SOC 101, (101H),105, 110, 111, 112, 115, 116, 120, 200
<b>AREA 5: PHYSICAL AND BIOLOGICAL SCIENCES</b> At least 2 courses required, 7 semester units or 9 quarter units One physical science course and one biological science course; at least one course must include a lab. # meets 5C requirement				
5A				A: PHYSICAL SCIENCES: ASTR 101 (101H) ; CHEM 101#, 102#, 110#, 120#, 210#, 220#; ERSC 101#; GEOG 101, 102; GEOL 101,(101H), 102; PHYS 101#, 102#, 110#, 120#, 211#; PSCI 101#
5B				B: BIOLOGICAL SCIENCES: ANTH 101 (101H); BIOL 101*#, 102#, 103#, 104, (104H),110#, 120#, 201#, 202#, 204#, 205# <span style="color: red;">** Must register for required lab component separately</span>
5C				C: LABORATORY: ANTH 101L; ASTR 101L; BIOL 101L; GEOG 101L, 102L; GEOL 101L, 102L
<b>AREA 6: LANGUAGE OTHER THAN ENGLISH (UC REQUIREMENT ONLY)</b> Proficiency equivalent to two years of high school in the same language with a grade of "C" OR earn a score of 3 or higher on the AP Foreign Language test, OR 550 on the College Board Achievement Test in Foreign Language OR complete one of the foreign language courses listed below.				
6				CHIN 102, 201, 202; DFST 102, 201, 202; FREN 102, 201, 202, 203; GER 102, 201, 202; LATN 102, 201; SPAN 102, 201, 202, 203, 110SS, 210SS, 220SS
<b>AREA 7: ETHNIC STUDIES</b> 1 course, 3 semester or 4 quarter units <span style="color: red;">*Reduction of units in Area 4 and inclusion of Area 7 take effect for students matriculating at a California community college beginning in Fall 2023</span>				
7				ENGL 257 or ETHN 257EN
<b>CSU GRADUATION REQUIREMENT IN U.S. HISTORY, CONSTITUTION, AND AMERICAN IDEALS</b> (Not part of IGETC, may be completed prior to transfer). 2 courses, 6 semester units or 8 quarter units. May also apply to Area 3B & 4.				
				HIST 107 & POLS 101; HIST 108 & POLS 101; HIST 110 & POLS 101; HIST 111 & POLS 101

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