

AST-Mathematics for Transfer Degree 24-25



ABOUT THIS MAJOR

The Associate in Science in Mathematics for Transfer (AS-T) offers students a fundamental knowledge of Mathematics and its relation to science, technology, and engineering. Students will enhance their problem solving and critical thinking skills by applying mathematical models to real world problems or utilizing mathematical objects and theorems to evaluate the validity of a statement or to prove mathematical statements. 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

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 - Mathematics [Total Units 18-19]

Required Courses: (13units)	
MATH150 - Calculus and Analytic Geometry	5
MATH160 - Calculus and Analytic Geometry	4
MATH250 - Calculus and Analytic Geometry	4

Required Elective Group A & B (8-16 units) Select 6 units minimum from the lists below with at least 3 units from list A	
Required Elective A: Select one to two (Total 4 - 8)	
MATH 220-Linear Algebra	4
MATH 230 - Introduction to Ordinary Differential Equations	4
Required Elective B: Select one (Total 4 - 8)	
PHYS110 - General Physics	4
MATH115 - Statistics OR MATH116 - Intro to Statistics Using R	4

COUNSELING NOTE SECTION		
Consult with Counselor regarding Math Placement		
Mathematics Calculus Sequence and prerequisites: 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)		
Prerequisite: 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: ACADEMIC POLICIES		
INFORMATION and RESOURCES		
Tutoring Assistance	Career Center	AVC Student Health Services
Transfer Center	Office of Students with Disabilities	Palmdale Center
Basic Needs	Financial Aid	Counseling Division

RECOMMENDED PATHWAY: AST-Mathematics

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 this area if you choose (See back page for GE 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.
- IGETC GE transfer pathways: CSU - UC - PRIVATE - OUT OF STATE - OR UNSURE
- CSU GE transfer pathways: CSU ONLY
- IGETC GE PATTERN: 2yrs HS LOTE or IGETC LOTE 101 & 102 Requirement (UC ONLY)
- Take classes in **Summer** or **Intersession** if needed to complete your degree in a timely manner!
- Fall/Spring: Max 19 units, 12-15 units Recommended.

TERM 1		
CSU Gen-Ed Sequence	IGETC Gen-Ed Sequence	Units
CSU B4 * MATH 150	IGETC 2: * MATH 150	5
CSU A1: #COMM 101	IGETC 1C (CSU only)	3
CSU C2: #PHIL 106	IGETC 3H	3
CSU E: #HE120	Transferable Elective	3
ELECTIVE: #KINF 107	ELECTIVE: #KINF 107	1
Total Units		15

TERM 2		
CSU Gen-Ed Sequence	IGETC Gen-Ed Sequence	Units
MATH 160		4
CSU B1/B3: *#PHYS 110	IGETC 5A/5C:*#PHYS 110	4
CSU A2: Engl 101	IGETC 1A: ENGL 101	3
CSU D: #HIST 108	IGETC 4: #HIST 111	3
ELECTIVE: #KINF 108	ELECTIVE: #KINF 108	1
Total Units		15

TERM 3		
CSU Gen-Ed Sequence	IGETC Gen-Ed Sequence	Units
MATH 250		4
Program Elective A/B: MATH 115 or 116 or 230		4
CSU A3: #PHIL 201	IGETC 1B: #PHIL 201	3
CSU C1: #FTV 101	IGETC 3A: #FTV 101	3
CSU D: #POLS 101	IGETC 4: #POLS 101	3
Total Units		17

TERM 4		
CSU Gen-Ed Sequence	IGETC Gen-Ed Sequence	Units
Program Elective A: # MATH 220		4
CSU B2: #ANTH 101	IGETC 5B: #ANTH 101	3
CSU F: # ENGL 257	IGETC 7: #ENGL 257	3
CSU C1/C2: #MUS 101	IGETC 3A/3H: #MUS 101	4
Total Units		13

TRANSFER BEGINS DAY 1

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TRANSFER OPTION 1 - MIN GPA 3.0 [CSU - UC - PRIVATE - OUT OF STATE - OR UNSURE]				
23-24 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, Effective Fall 2023				
GE AREA	COMPLETED	IN PROGRESS	NEED	Advising Form Effective Fall 2023 - Summer 2024
AREA 1: ENGLISH COMMUNICATION 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
1B				Group B Critical Thinking: ENGL 102, 103; PHIL 201
1C				Group C Oral Communication (CSU ONLY): COMM 101
AREA 2: MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING 1 course, 3 semester or 4 quarter units				
2A				MATH 110, 115, 116, 124, 128, 140, 148, 150, 160, 220, 230, 250
AREA 3: ARTS AND HUMANITIES 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, 102, 103, 104, 106; DA 101; ENGL 235; FTV 101, 107, 108, 201, 203; MUS 101, 105; MUSC 102, 103, 107, 108; THA 101, 110, 225
3B				HUMANITIES: CHIN 102; COMM 114, 217; ENGL 221, 222, 225, 227, 230, 231, 235, 242, 253, 256, 257, 259, 265, 279; FREN 102, 201, 202, 203; FTV 201, 203, 251; GER 102, 201, 202; HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 115, 119; LATN 102, 201; PHIL 105, 106, 108, 109; PHOT 107; SPAN 110SS, 201, 202, 203, 210SS, 220SS; THA 239
3A or 3B				
AREA 4: SOCIAL AND BEHAVIORAL SCIENCE 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, 140; BUS 212; CFE 102, 103; ECON 100, 101, 102, 110; DFST 105, 106 (110); GEOG 105, 106, 110; HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 114, 116, 118, 119; POLS 101, 103, 200, 202, 203; PSY 101, 200, 201, 212, 230, 232, 233, 234, 235, 236; SOC 101, 105, 110, 111, 112, 115, 116, 120, 200; THA (240)
4				
AREA 5: PHYSICAL AND BIOLOGICAL SCIENCES 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; CHEM 101#, 102#, 110#, 120#, 210#, 220#; ERSC 101#; GEOG 101, 102; GEOL 101, 102; PHYS 101#, 102#, 110#, 120#, 211#; PSCI 101#
5B				B: BIOLOGICAL SCIENCES: ANTH 101; BIOL 101*#, 102#, 103#, 104, 110#, 120#, 201#, 202#, 204#, 205# *# Must register for required lab component separately
5C				C: LABORATORY: ANTH 101L; ASTR 101L; BIOL 101L; GEOG 101L, 102L; GEOL 101L, 102L
AREA 6: LANGUAGE OTHER THAN ENGLISH (UC REQUIREMENT ONLY) 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
AREA 7: ETHNIC STUDIES 1 course, 3 semester or 4 quarter units *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				
7				ENGL 257 or ETHN 257EN
CSU GRADUATION REQUIREMENT IN U.S. HISTORY, CONSTITUTION, AND AMERICAN IDEALS (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

TRANSFER OPTION 2 - MIN GPA 2.0 [CSU ONLY]				
23-24 CSU PLAN [CSU General Education Requirements]				
Completion of all the requirements in the CSU General Education Breadth may satisfy lower division general education requirements for students who transfer from Antelope Valley College to a California State University campus. Courses may not be used in more than one area with the exception of American Institutions requirement. Legend: () = Newly Approved, Effective Fall 2023				
GE AREA	COMPLETED	IN PROGRESS	NEED	Advising Form Effective Fall 2023 - Summer 2024
AREA A: ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING 9 semester units (12 quarter units); One course in each Subareas A1, A2, and A3. Grade of "C" or better required all Area A.				
A1				A1 Oral Communication: COMM 101, (201)
A2				A2 Written Communication: ENGL 101
A3				A3 Critical Thinking: COMM 110, 115; ENGL 102, 103; PHIL 101, 106, 110, 201
AREA B: SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING- 9 semester units (12 quarter units) One course each in Subareas B1, B2, and B4, plus laboratory activity (B3) related to one of the completed science courses. # meets B3 requirement				
B1				B1 Physical Science: ASTR 101; CHEM 101#, 102#, 110#, 120#, 210#, 220#; ERSC 101#; GEOG 101, 102; GEOL 101, 102; PHYS 101#, 102#, 110#, 120#, 211#; PSCI 101#
B2				B2 Life Science: ANTH 101; BIOL 101*#, 102#, 103#, 104, 110#, 120#, 201#, 202#, 204#, 205# *# Must register for required lab component separately
B3				B3 Laboratory Activity: ANTH 101L; ASTR 101L; BIOL 101L; GEOG 101L, 102L; GEOL 101L, 102L
B4				B4 Mathematics/Quantitative Reasoning: Grade of "C" or better required in Area B4 MATH (103), 110, 115, 116, 120, 124, 128, (131), 135, 140, 148, 150, 160, 220, 230, 250
AREA C: ARTS AND HUMANITIES- 9 semester units (12 quarter units) One course in each Subareas C1 and C2, and one additional course from either C1 or C2.				
C1				C1 Arts: ART 100, 101, 102, 103, 104, 106, 113, 132, 135, 137, 140, 145, 163, 170, 213; COMM 112, 114; DA 101; FTV 101, 107, 108, 201, 203, 251; HIST 115; MUS 101, 105, 111, 121, 126, 131, 132, 151, 153B, 160, 166, 185, 231, 251A, 251B; MUSC 102, 103, 107, 108, 142, 173, 220A, 273; PHTC 101, 150, 201; PHOT 107; THA 101, 102, 110, 130, 225
C2				C2 Humanities: CHIN 101, 102, 201, 202; COMM 112, 217, 219; DFST 101, 102, 201, 202; ENGL 102, 111, 112, 221, 222, 225, 227, 230, 231, 235, 242, 253, 256, 257, 259, 265, 279; FREN 101, 102, 201, 202, 203; FTV 201, 203, 251; GER 101, 102, 201, 202; HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 115, 118, 119; LATN 101, 102, 201; MUSC 108; NF 150; PHIL 105, 106, 108, 109; PHOT 107; SPAN 101, 110SS, 102, 201, 202, 203, 210SS, 220SS; THA 239
C1 or C2				
AREA D: SOCIAL SCIENCE- 6 semester units (8 quarter units) Courses shall be completed in at least 2 different disciplines.				
D1				AJ 206; ANTH 102, 103, 110, 112, 140; BUS 212; CFE 102, 103; DFST 105, 106, 110; ECON 100, 101, 102, 110; GEOG 105, 106, 110; HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 114, 116, 118, 119; POLS 101, 103, 200, 201, 202, 203; PSY 101, 200, 201, 212, 230, 232, 233, 234, 235, 236; SOC 101, 105, 110, 111, 112, 115, 116, 120, 200
D2				
AREA E: LIFELONG LEARNING & SELF-DEVELOPMENT- 3 semester units (4 quarter units) DD214 for 4 units** Basic Military Training notated on an official Military Transcript (e.g. CCAF, JST) may be substituted for the DD214				
E				CFE 102; COMM 107; DA 108, 111; HE 101, 120; HD 101, 102, 105; NF 100, 103, 150; PSY 212, 236; SOC 111, 116, 120
AREA F: ETHNIC STUDIES- 3 semester (4 quarter units)				
F				ENGL 257 or ETHN 257EN
A.I. American Ideals- 6 semester (8 quarter units) Select one pair. Courses may also apply to Area C2 and D above				
A.I.				HIST 107 & POLS 101; HIST 108 & POLS 101; HIST 110 & POLS 101; HIST 111 & POLS 101

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