

A.S. Electrical Engineering Degree 25-26



ABOUT THIS MAJOR

The Associate in Sciences in Electrical Engineering will provide students with a fundamental knowledge of Electrical Engineering, to enhance their computational and problem solving skills, sharpen their critical

thinking, and to ensure proper preparation for junior level Electrical Engineering coursework at a university. Students completing this degree should realize that there are many sub disciplines in Electrical Engineering and most require a similar core education, but not all. For more information, visit the [Mathematics, Sciences, and Engineering](#) division.

TO EARN A DEGREE A STUDENT MUST COMPLETE THE FOLLOWING:

- [1] Completion of a minimum of 60-semester units or 90 quarter units of degree applicable courses
- [2] A minimum of 18-semester units in a major
- [3] Completion of 21 units AVC General Education Requirements
- [4] Minimum overall grade point average of 2.0
- [5] A "C" or better in all courses required for the major

AS- Electrical Engineering

[Total Units Required for the Major: 35-48]

Programming Courses, choose one (total 3-4 units)	
CS120 - Programming and Algorithms in C++	3
CS121 - Programming and Algorithms in Java	3
CS122 - Programming and Algorithms in Python	3
ENGR125 - Programming and Problem-Solving in MATLAB	4

Required CALC Courses, choose one (a total of 5 units)	
MATH150 - Calculus and Analytic Geometry	5
MATH150H - Calculus & Analytic Geometry Honors	5

Core Courses, complete ALL courses (a total of 24 units)	
ENGR230 - Circuit Analysis	4
MATH160 - Calculus and Analytic Geometry	4
MATH230 - Introduction to Ordinary Differential Equations	4
MATH250 - Calculus and Analytic Geometry	4
PHYS110 - General Physics	4
PHYS120 - General Physics	4

Program Electives, choose one (a total of 3-5 units)	
ENGR110 - Introduction to Engineering	3
ENGR185 - Digital Logic and Design	4
MATH220 - Linear Algebra	4
PHYS211 - General Physics	5

RECOMMENDED PATHWAY

Associate of Science in Electrical Engineering

The Recommended Plan of Study is determined by the discipline faculty. Take classes in **Summer** or **Interession** if needed to complete your degree in a timely manner!

Fall/Spring: Max 19 units | Summer: Max 9 units | Interession: Max 6 units

■ Major

● General Education

▲ General Elective

SEMESTER 1

Course	Units
■ MATH 150	5
● AVC GE Area 1A: EnglC1000/H {formally Engl 101}	5
● AVC GE AREA 4: Social & Behavioral Sciences	3
● AVC GE Area 1B: Oral Comm.& Critical Think	3
Total Units	14

SEMESTER 2

Course	Units
▲ General Elective	3
Total Units	3

SEMESTER 3

Course	Units
■ Program Elective: ENGR 185 (rec.)	4
■ MATH 160	4
■ PHYS 110	4
■ Programing course	3-4
Total Units	15-16

SEMESTER 4

Course	Units
■ MATH 250	4
■ PHYS 120	4
● AVC GE Area 3: Arts & Humanities	3
▲ General Elective	3
Total Units	14

SEMESTER 5

Course	Units
■ ENGR 230	4
■ MATH 230	4
● AVC GE Area 6: Ethnic Studies	3
▲ General Elective	3
Total Units	14
Total Degree Units	60

COUNSELING NOTE SECTION

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)

Application for Graduation:

Antelope Valley College awards degrees three times annually following the Fall, Spring, and summer semesters. Students must apply for graduation to earn their degree or certificate. Applications are due by September 6 for spring/summer graduates and by February 14 for fall graduates.

AVC 25-26 CATALOG: [ACADEMIC POLICIES](#)

INFORMATION and RESOURCES

Tutoring Assistance
Transfer Center
Basic Needs

Career Center
Office of Students with Disabilities
Financial Aid

AVC Student Health Services
Palmdale Center
Counseling Division

2025-2026 AVC General Education Requirements									
Advising Form Effective Fall 2025 - Summer 2026									
GE AREA	COMPLETED	IN PROGRESS	NEED	The requirements for an AA or AS degree include the following: 1. A minimum of 60 semester units; with at least 12 semester units completed in residence at AVC for an AA/AS degree (credit earned by examination will not be included in these 12 units); maximum of 12 pass/no-pass credit units can be accepted towards an AA/AS degree. 2. Refer to each individual program for major requirements. All major courses as specified in the AVC catalog and <u>AVC Area 1A must be completed with a grade of "C" or better.</u> 3. An overall grade point average (GPA) of 2.0 ("C" average) is required. <u>Double counting:</u> While a course may 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. <u>Prerequisite:</u> If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order 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) <u>Complete at least 3 semester units from each of the following areas below: 1A, 1B, 2, 3, 4, 5, and 6.</u> <u>Minimum Total GE Units Required 21 semester units or 28-31.5 quarter units.</u>					
				AREA 1: ENGLISH COMPOSITION, ORAL COMMUNICATION, AND CRITICAL THINKING 2 courses required, one from Area A and one from Area B, 6 semester or 8 quarter units					
				1A				Area 1A: English Composition: ENGL C1000, ENGL C1000H	
				1B				Area 1B: Oral Communication and Critical Thinking: COMM C1000, C1000H; ENGL C1001, C1001H, 102, 102H; PHIL 201	
AREA 2: Mathematical Concepts and Quantitative Reasoning 1 course, 3 semester or 4 quarter units									
2				MATH 103, 110, 116, 124, 128, 140, 148, 150, 150H, 160, 220, 230, 250; STAT C1000, C1000H					
AREA 3: ARTS AND HUMANITIES 1 courses, 3 semester units or 4 quarter units									
3				ART 100, 101, 101H, 102, 102H, 103, 104, 106, 113, 132, 135, 137, 140, 145, 163, 170, 213; CHIN 101, 102, 201, 202; DFST 101, 102, 201, 202; COMM 112, 114, 217, 219; DA 101, 113; ENGL 102, 102H, 114, 221, 222, 225, 227, 230, 231, 235, 242, 253, 253H, 256, 257, 259, 265, 279; FREN 101, 102, 201, 202, 203; FTV 101, 107, 108, 201, 203, 251; GER 101, 102, 201, 202; HIST 104, 105, 107, 107H, 108, 108H, 110, 110H, 111, 111H, 113, 115, 119; LATN 101, 102, 201; MUS 101, 101H, 105, 106, 110, 111, 120, 151; MUSC 102, 103, 107, 108, 109; PHIL 105, 105H, 106, 108, 109, 130, 140; NF 150; PHOT 107; PHTC 101, 150, 201; SPAN 101, 102, 110SS, 201, 202, 203, 210SS, 220SS; THA 101, 101H, 102, 103, 104, 106, 110, 111, 225, 239, 239H, 240					
AREA 4: SOCIAL AND BEHAVIORAL SCIENCE 1 course, 3 semester units or 4 quarter units									
4				AJ 206; ANTH 102, 103, 110, 112, 112H, 140; BUS 212; CFE 102, 103; DFST 105, 106, 110; ECON 100, 101, 101H, 102, 102H, 110; GEOG 105, 106, 110; HIST 104, 105, 107, 107H, 108, 108H, 110, 110H, 111, 111H, 113, 114, 116, 118, 119; POLS C1000, C1000H, 103, 200, 201, 202, 203; PSY 200, 201, 212, 230, 232, 233, 234, 235, 236; PSYC C1000, C1000H; SOC 101, 101H, 105, 110, 111, 112, 115, 116, 120, 200;					
AREA 5: NATURAL SCIENCES 1 course, 3 semester units or 4 quarter units									
5				ANTH 101, 101H; ASTR 101, 101H; BIOL 100, 101#, 102, 103, 104, 104H, 110, 120, 201, 202, 204, 205; CHEM 101, 102, 110, 120, 210, 220; ELTE 101; ERSC 101; GEOG 101, 102; GEOL 101, 102; PHYS 101, 102, 110, 120, 211; PSCI 101 #Students must register for the required lab component (BIOL 101L) separately.					
AREA 6: ETHNIC STUDIES 1 course, 3 semester units or 4 quarter units									
6				ETHN 101, 102, 110, 111, 112, 113, ENGL 257 or ETHN 257EN					