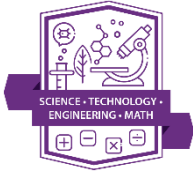


# Engineering Fundamentals Certificate 25-26



## ABOUT THIS MAJOR

A student completing the Engineering Fundamentals Certificate will gain a solid grounding in the basic principles that underlie all engineering disciplines. This certificate provides both academic preparation for, and a pathway to,

internships. When combined with further study, it will lead to an Engineering Associate in Science Degree and/or transfer. This certificate is intended to be completed at the beginning of a student's course of study, while they are at the freshman level. For more information, visit the [Social and Behavioral Sciences](#) division.

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

- [1] Completion of Major & Program Electives Courses
- [2] Minimum grade point average of 2.0
- [3] A C or better in all courses required for the major

### Certificate- Engineering Fundamentals

[Total Units Required in the Major 25-28]

Required Courses, complete <b>ALL</b> courses (19 units)	
ENGR110 - Introduction to Engineering	3
MATH150 - Calculus and Analytic Geometry	5
MATH160 - Calculus and Analytic Geometry	4
PHYS110 - General Physics	4
ENGL101 - College Composition	3
Program Electives: Complete (6-9 units) from the following:	
CHEM110 - General Chemistry	5
CS110 - Intro to Programming Concepts and Methodologies	3
CS120 - Programming and Algorithms in C/C++	3
CS121 - Programming and Algorithms in Java	3
CS122 - Programming and Algorithms in Python	3
CS123 - Programming and Algorithms in C#	3
ENGR125 - Programming and Problem-Solving in MATLAB	4


## RECOMMENDED PATHWAY

### Engineering Fundamentals Certificate




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

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





 Major

 Program Elective

### SEMESTER 1

Course	Units
 ENGR 110	3
 ENGL 101	3
 MATH 150	5
Total Units	11

### SEMESTER 2

Course	Units
 MATH 160	4
 PHYS 110	4
 Program Elective: choose from list	3-5
 Program Elective: choose from list	3-5
Total Units	14-18
Total Certificate Units	25-28

### 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