

COUNSELING CENTER ADVISING

- See Drafting/Computer Aided Design for Drafting/CAD program.
- Semester order for classes and time to complete may vary for night students.

Certificate Program

Engineering Technology

Currently not accepting new applicants for this major

- Requires a minimum grade of “C” on each course
- Maximum of 6 pass/no pass units accepted
- Minimum of 12 units completed in residence at AVC with a minimum of 9 of those units completed in the certificate coursework (credit earned by examination will not be included in these 12 units)
- Refer to catalog or online website for course listings, descriptions, and suggested course sequence if available

Required Courses units

CIS 161, Introduction to C Programming	3
DRFT 125, Mechanical Drafting or DRFT 130, Architectural Draft. I	3
DRFT 150, Interm. 2-D AutoCAD	3
DRFT 240, Electronic Drafting	3
ELTE 125, Direct and Alternating Current Principles	5
ENGR 115, Basic Engineer Drawing	3
ENGR 120, Introduction to 2-D AutoCAD	3
MATH 128, College Algebra For Liberal Arts	3
Program Electives (see below)	<u>5</u>
Total Units Required	32

Program Electives

Complete five units from the following:	
DRFT 230, Architectural Drafting II	3
DRFT 250, Intro. to 3-D AutoCAD	2
MATH 150, Calculus and Analytical Geometry	5

Prerequisite Completion

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. According to Title 5, Section 55200(d), 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.

AS-Associate Degree (2)

Engineering

- Requires a minimum grade of “C” on each course in the major
- Maximum of 12 pass/no pass units accepted
- Minimum of 12 units must be completed at AVC (credit earned by examination will not be included in these 12 units)
- Refer to catalog or online website for course listings, descriptions, and suggested course sequence if available
- Students who intend to transfer are strongly encouraged to complete either the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breath (CSU GE).

Major Required Courses units

ENGR 110, Engineering Orientation and Basic Skills	3
ENGR 125, Programming and Problem Solving in MATLAB	4
ENGR 130/130L, Materials Science and Material Science Lab OR ENGR 185, Digital Logic and Design	4
ENGR 140, Engineering 3D Graphics	3
ENGR 210, Statics	4
ENGR 230, Circuit Analysis	<u>4</u>
Units Required for Major	22

Note: All Engineering courses in this major have combinations of Chemistry, Calculus, and Physics prerequisites.

other requirements for degree

General Education	21-27
Proficiency (See Proficiency Requirements) *	*
Electives	<u>11-17</u>
Minimum Units Required	60

*Fulfilling proficiencies will not require any extra units if the competencies are demonstrated by including the required courses in the general education, or major requirements, or by satisfying the reading proficiency through AVC’s policy.

Engineering Technology

Currently not accepting new applicants for this major

- Requires a minimum grade of “C” on each course in the major
- Maximum of 12 pass/no pass units accepted
- Minimum of 12 units must be completed at AVC (credit earned by examination will not be included in these 12 units)
- Any particular course can count only once toward the degree—either toward the major, the GE requirements, or as an elective
- Refer to catalog or online website for course listings, descriptions, and suggested course sequence if available

Major Required Courses units

CIS 161, Introduction to C Programming	3
DRFT 125, Mechanical Drafting or DRFT 130, Architectural Draft. I	3
DRFT 150, Interm. 2-D AutoCAD	3
DRFT 240, Electronic Drafting	3
ELTE 125, Direct and Alternating Current Principles	5
ENGR 115, Basic Engineer Drawing	3
ENGR 120, Introduction to 2-D AutoCAD	3
MATH 128, College Algebra For Liberal Arts	3
Program Electives (see below)	<u>5</u>
Units Required for Major	32

Program Electives

Complete five units from the following:	
DRFT 230, Architectural Drafting II	3
DRFT 250, Intro. to 3-D AutoCAD	2
MATH 150, Calculus and Analytical Geometry	5

other requirements for degree

General Education	21-27
Proficiency (See Proficiency Requirements) *	*
Electives	<u>1-7</u>
Minimum Units Required	60

Consult with a counselor/advisor for availability of course.

General Education Requirements

At least 3 units from each of the following areas below: A, B, C, D1, D2, E, and F.

Minimum Total GE Units Required 21

Area A Natural Sciences (min. 3 units)

ANTH 101, 101L
 ASTR 101, 101L
 BIOL 100, 101, 102, 103, 104, 110, 120, 201, 202, 204, 205
 CHEM 101, 102, 110
 ELTE 101
 ERSC 101
 GEOG 101, 101L, 102, 102L
 GEOL 101, 101L, 102, 102L
 PHYS 101, 102, 110, 120, 211
 PSCI 101

Area B Social & Behavioral Sciences

(min. 3 units)

AJ 201, 204, 206

ANTH 102, 103, 112, 140

BUS 101

CFE 102

COMM 217

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, 201, 212, 230, 232, 233, 234, 235,

236

SOC 101, 105, 110, 111, 112, 115, 116, 120

Area C Humanities (min. 3 units)

ART 100, 101, 102, 103, 104, 110, 113, 132,

135, 136, 137, 140, 145, 150, 210, 213

CHIN 101, 102, 201, 202

COMM 103, 112, 114, 214

DA 101

DFST 101, 102, 105, 201, 202

ENGL 102, 111, 112, 113, 221, 222, 225, 227,

230, 231, 235, 236, 240, 242, 246, 250, 253,

256, 257, 259, 265, 279

FREN 101, 102, 201, 202, 203

FTV 101, 103, 107, 108, 201, 203, 251, 261

GER 101, 102, 201, 202

HIST 115

ID 150, 201

LATN 101, 102, 201

MUS 101, 105, 111, 131, 132, 151, 153, 185,

231, 232, 251A, 251B, 253A, 253B

MUSC 102, 103, 107

PHIL 105, 106, 108, 109

PHOT 107

PHTC 101, 150, 201

SPAN 101, 110SS, 102, 201, 202, 210SS,

220SS

THA 101, 102, 103, 110, 115A, 115B, 116A,

116B, 117A, 117B, 118A, 118B, 130, 225, 239

Area D Language & Rationality

(min. 3 units from (1) and 3 units from (2))

1. *Academic Composition:* Courses fulfilling the written composition requirement shall be designed to include both expository and argumentative writing.

ENGL 101, 101SL

2. *Communication and Analytical*

Thinking

BUS 113

CA 103

CIS 101, 111, 141, 157

COMM 101, 103, 107, 109, 112, 114, 115,

217, 219

ENGL 102, 103

GEOG 201, 205

MATH 102, 115, 116, 120, 124, 128, 135,

140, 148, 150, 160, 220, 230, 250

PHIL 101, 106, 110, 201

Area E - Additional Breadth

(min. 3 units)

From areas A**, B**, C**, D2 **or

CFE 102

COMM 103, 107, 219

HD 100, 101, 102, 103, 105

HE 101, 120, 201

ID 100, 120

LIB 105, 107

NF 100, 102, 103, 110, 150

PSY 212

SOC 111, 116

Any DA activity course(s) from

DA 102-205, except DA 107A-C,

108, 109 and 111

Any KIN activity course(s) from KIN 101-180,

or up to 4 units for military experience.

** Course must be taken from a discipline not previously selected

Area F Diversity Studies (min. 3 units)

ANTH 112

BUS 212

CFE 116

COMM 114, 217, 219

ECON 110

ENGL 250, 253, 256, 257, 259

FTV 201, 203

HE 201

HIST 110, 111, 113

MGT 212

MUSC 107

POLS 202

SOC 105, 110, 116

THA 239

Proficiency Requirements

Proficiency requirements exist for the areas of Reading, Writing and Math. Students must demonstrate competency in each of these areas in order to be eligible for the associate degree.

A. READING

Eligibility for College Level Reading (AVC assessment) or completion of READ 099 with a minimum grade of "P" (Pass), or completion of an Associate Degree or higher from a regionally accredited institution of higher education.

B. WRITING

Completion of ENGL 101 or ENGL 101SL with a minimum grade of "C." NOTE: ENGL 101 may be taken with the Pass/No Pass option; however, students are cautioned that other colleges and universities may not accept ENGL 101 courses taken on a Pass/No Pass basis, especially for satisfaction of general education and major requirements. Students planning to transfer should check college catalogs for applicable policies.

C. MATHEMATICS

Completion of MATH 102 or higher or CIS 121 with a satisfactory grade or placement by AVC assessment into a math course higher than MATH 102.

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 "AVC" at the end of a course description can be used as an elective.

Grade Point Average Requirement

An overall grade point average of 2.0 ("C" average) is required.

Residence Requirement

Of the required 60 units, "at least 12 semester units must be completed in residence at the college granting the degree." Title 5, Section 54000 et seq. Title 5 of the California Code of Regulations is available at <http://ccr.oal.ca.gov> and in the Antelope Valley College Library.

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.

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.

Requirements for Two or

More Certificates

To earn more than one certificate, a course can be used as part of as many certificate requirements as the student wishes to obtain.

Transfer

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

Transferability of courses to the CSU or UC systems is indicated at the end of a course description by the notation "(UC, CSU)." For the transferability of courses to all other universities, please consult with a counselor or the Transfer Resource Center.

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.

Antelope Valley College's website: www.avc.edu

For an educational plan, please consult with a counselor. To obtain counseling services please call: (661) 722-6300 ext. 6338

To contact the Mathematics, Science, and Engineering Division, please call: 661-722-6300 ext. 6415

CIS 161 *INTRODUCTION TO C PROGRAMMING
Advisory: Completion of CIS 101, and Eligibility for ENGL 099, READ 099 and MATH 128. (CSU, UC, AVC)

DRFT 130 *ARCHITECTURAL DRAFTING I

Prerequisite: Completion of ENGR 120.

Advisory: Eligibility for ENGL 097, READ 095 and MATH 070. (AVC)

DRFT 150 *INTERMEDIATE 2-D AUTOCAD

Prerequisite: Completion of ENGR 120.

Advisory: Eligibility for READ 099. (CSU, AVC)

DRFT 230 *ARCHITECTURAL DRAFTING II

Prerequisite: Completion of DRFT 130.

Advisory: Eligibility for ENGL 097 and READ 095. (AVC)

DRFT 240 *ELECTRONIC DRAFTING

Prerequisite: Completion of ENGR 120.

Advisory: Eligibility for ENGL 099, READ 099 and MATH 070. (AVC)

DRFT 250 *INTRODUCTION TO 3-D CAD

DRAFTING

Prerequisite: Completion of ENGR 120. (CSU, AVC)

ENGR 110 *ENGINEERING ORIENTATION AND BASIC SKILLS

Prerequisite: Completion of MATH 102. (CSU, AVC)

ENGR 115 *BASIC ENGINEERING DRAWING

Advisory: Eligibility for MATH 070. (CSU, AVC)

ENGR 120 *INTRODUCTION TO 2-D CAD

Advisory: Eligibility for READ 099. (CSU, AVC)

ENGR 125 PROGRAMMING AND PROBLEM-SOLVING IN MATLAB

Prerequisite: Completion of MATH 150.

(CSU, UC, AVC)

ENGR 130 MATERIAL SCIENCE

Prerequisite: Completion of CHEM 110 and PHYS 110.

Corequisite: Concurrent enrollment in ENGR 130L. (CSU, UC, AVC)

ENGR 130L MATERIAL SCIENCE LAB

Corequisite: Concurrent enrollment in ENGR 130. (CSU, AVC)

ENGR 140 ENGINEERING 3D GRAPHICS

Prerequisite: Completion of MATH 135 (AVC Assessment).

(CSU, UC, AVC)

ENGR 185 *DIGITAL LOGIC AND DESIGN

Prerequisite: Completion of MATH 102.

Advisory: Eligibility for ENGL 101/ENGL 101SL and READ 099.

(CSU, UC, AVC)

ENGR 210 STATICS

Prerequisite: Completion of MATH 160 and PHYS 110.

(CSU, UC, AVC)

ENGR 220 *STRENGTH OF MATERIALS

Prerequisite: Completion of ENGR 210.

Corequisite: Concurrent enrollment in ENGR 220L.

Advisory: Concurrent enrollment in ENGR 220PS.

(CSU, UC, AVC)

ENGR 220PS *STRENGTH OF MATERIALS

PROBLEM SOLVING SESSION

Corequisite: Concurrent enrollment in ENGR 220.

(CSU, AVC)

ENGR 220L *STRENGTH OF MATERIALS LAB

Corequisite: Concurrent enrollment in ENGR 220.

(CSU, AVC)

ENGR 230 CIRCUIT ANALYSIS

Prerequisite: Completion of PHYS 120.

Corequisite: Concurrent enrollment in MATH 230

(CSU, UC, AVC)

MATH 150 CALCULUS AND ANALYTIC GEOMETRY

Prerequisite: Eligibility of Math 150 (AVC Assessment test) or Completion of MATH 140.

Advisory: Eligibility for College Level Reading.

(CSU, UC, AVC)

ELTE 125 *DIRECT CURRENT AND ALTERNATING CURRENT PRINCIPLES

Prerequisite: Completion of or concurrent enrollment in ELTE 110.

Advisory: Eligibility for ENGL 099, READ 099 and MATH 070.

(AVC)

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 enrolling if the student does not meet the stated requisite.