



AS - Mechanical Engineering 23-24

Recommended Plan of Study - Counseling

All courses with a + sign indicate a pre-requisite or co-requisite

Term 1 (Fall/Spring: Max. 19 units, 12-15 u. recommended)	Units	Term 4 (Fall/Spring: Max. 19 units, 12-15 u. recommended)	Units
Gen. Ed. Area A CHEM 110+, General Chemistry	5	ENGR 140+, Engineering 3D Graphics	3
ENGR 110+, Introduction to Engineering	3	MATH 230+, Introduction to Ordinary Differential Equations	4
Gen Ed. Area D2 MATH 150+, Calculus and Analytic Geometry	5	PHYS 120+, General Physics	4
General Education Area F #FTV 201	3	General Education C #THA 101	3
# Recommended		Total	14
Total	16		
Term 2 (Fall/Spring: Max. 19 units, 12-15 u. recommended)	Units	Term 5 (Fall/Spring: Max. 19 units, 12-15 u. recommended)	Units
ENGR 125+, Programming and Problem Solving in MATLAB	4	ENGR 210+, Statics	4
MATH 160+, Calculus and Analytic Geometry	4	MATH 250+, Calculus and Analytic Geometry	4
Gen. Ed. Area E PHYS 110+, General Physics	4	ENGR 130+, Materials Science	4
General Education Area D1 (English 101+)	3		
Total	15	Total	12
Term 3 (Summer: Max. 15 units, 12 units recommended)	Units	Transfer or Graduate	
General Education Area B #POLS 101	3		

Take Summer classes if needed to complete the program in a timely manner.

The state requires all students to have a Comprehensive Educational Plan. Make a counseling appointment as soon as enrollment is established on any term. Come by the Counseling Center or call. Online Counseling is available: <https://www.avc.edu/student-services/counseling>

Major Required Courses:	Units	Area C Humanities: (min. 3 units)
CHEM 110+, General Chemistry	5	ART 100, 101, 102, 103, 104, 106, 110, 113, 120, 132, 135, 136+, 137+, 140,
ENGR 110+, Introduction to Engineering	3	145, 150, 163+, 170+, 210+, 213+
ENGR 125+, Programming and Problem Solving in MATLAB	4	CHIN 101, 102+, 201+, 202+
ENGR 130+, Materials Science & Lab	4	COMM 103, 112, 114, 214+, 217+, 219+
ENGR 140+, Engineering 3D Graphics	3	DA 101
ENGR 210+, Statics	4	DFST 101, 102+, 105, 106, 201+, 202+
MATH 150+, Calculus and Analytic Geometry	5	ENGL 102, 111+, 112+, 221+, 222+, 225+, 227+, 230+, 231+, 235+, 242+,
MATH 160+, Calculus and Analytic Geometry	4	253+, 256+, 257+, 259+, 265+, 279+
MATH 230+, Introduction to Ordinary Differential Equations	4	FREN 101, 102+, 201+, 202+, 203+
MATH 250+, Calculus and Analytic Geometry	4	FTV 101, 103, 107, 108, 201, 203, 241, 251, 261
PHYS 110+, General Physics	4	GER 101, 102+, 201+, 202+
PHYS 120+, General Physics	4	HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 115, 118, 119
Units Required for the Major:	48	LATN 101, 102+, 201+
<i>other requirements for degree</i>		MUS 101, 105, 111, 121+, 131, 132+, 151+, 153+, 185+, 231+, 232+,
General Education	21-27	251A+, 251B+, 253A+, 253B+
Proficiency (See Proficiency Requirements)	*	MUSC 102, 103, 107, 108, 109
Electives	0	NF 150
Minimum Units Required for AS Degree	60	PHIL 105, 106, 108, 109
Other Requirements:		PHOT 107
• Minimum grade of "C" required on each course		PHTC 101, 150+, 201+
• Maximum of 12 pass/no-pass units accepted for the Degree		SPAN 101, 110SS, 102+, 201+, 202+, 210SS+, 220SS+
• Refer to catalog or online website for course listings and descriptions		THA 101, 102, 103, 110, 115A, 115B+, 116A+, 116B+, 117A+, 117B+,
AS General Education: At least 3 units from each of the following areas below: A, B, C, D1, D2, E, and F. Minimum Total GE Units		118A+, 118B+, 121A, 121B, 130, 133, 225+, 239
Area A Natural Sciences: (min. 3 units)		Area D Language & Rationality: (min. 3 units from (1) and 3 units from (2))
ANTH 101, 101L		1. <i>Academic Composition:</i> Courses fulfilling the written composition requirement shall be designed to include both expository and argumentative writing.
ASTR 101+, 101L+		ENGL 101+
BIOL 100, 101+, 101L+, 102, 103, 104, 110+, 120+, 201+, 202+, 204+,		2. <i>Communication and Analytical Thinking</i>
CHEM 101+, 102+, 110+, 120+, 210+, 220+		BUS 113+
ELTE 101		CA 103
ERSC 101+		CS 120, 121, 122, 123
GEOG 101+, 101L+, 102, 102L+		COMM 101, 107, 109, 112, 114, 115, 217+, 219+
GEOL 101+, 101L+, 102+, 102L+		ENGL 102+, 103+
PHYS 101, 102+, 110+, 120+, 211+		GEOG 201, 205
PSCI 101		MATH 110+, 115+, 116+, 120+, 124+, 128+, 135+, 140+, 148+
Area B Social & Behavioral Sciences: (min. 3 units)		150+, 160+, 220+, 230+, 250+
AJ 201, 204, 206		PHIL 101, 106, 110, 201+
ANTH 102, 103, 110, 112, 140		
BUS 101, 212		
CFE 102, 103+		
COMM 217+		
DFST 105		
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+		

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Area E - Additional Breadth: (min. 3 units)

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

DA 111
 HD 100, 101, 102, 103, 105
 HE 101, 120, 201
 KINT 100
 LIB 107, 110
 NF 100, 102, 103, 110

Any DA activity course(s) from DA102-205, except DA 107A-C, 108, 109, and 111. Any Kinesiology Fitness (KINF) activity course, Intercollegiate Athletics (IATH) activity course, or up to 4 units for military experience.

**** Courses must be taken from a discipline not previously selected.**

Area F Diversity Studies: (min. 3 units)

ANTH 102, 112	FTV 201, 203
BUS 212	HE 201+
CFE 116+	HIST 110, 111, 113
COMM 114, 217+, 219+	MUSC 107, 108
DFST 105, 106	POLS 202+
ECON 110	SOC 105, 110, 116
ENGL 250+, 253+, 256+, 257+, 259+	THA 239

Proficiency Requirements

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

A. WRITING

Completion of ENGL 101 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.

B. 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.

***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.

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.

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.

• 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>

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.

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

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.

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 co-requisite.