

AS - Electrical Engineering 23-24 Recommended Plan of Study - Counseling

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

GP

					UP
Term 1 (Fall/Spring: Max. 19 units, 12-15 u. recommended)		Units	Term 3 (Fall/Spring: Max. 19 units, 12-15 u. recommend	ed)	Units
ENGR 110+, Introduction to Engineering		3	ENGR 185+, Digital Logic and Design		4
Gen Ed. Area D2 MATH 150+, Calculus and Analytic Geometry		5	MATH 250+, Calculus and Analytic Geometry		4
General Education Area D1 (English 101+)		3	PHYS 120+, General Physics		4
General Education Area B #POLS 101		3	General Education C #THA 101		3
# Recommended	Total	14	T	otal	15
Term 2 (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 E CS 120 or 121 or 122, Programming		3	ENGR 230+, Circuit Analysis		4
ENGR 125+, Programming and Problem Solving in MATLAB		4	MATH 230+, Introduction to Ordinary Differential Equat	ions	4
MATH 160+, Calculus and Analytic Geometry		4	PHYS 211+, General Physics		5
Gen. Ed. Area A PHYS 110+, General Physics		4	General Education Area F #FTV 201		3
(Summer: Max. 15 units, 12 units recommended)	Total	15	Ţ	otal	16
			Transfer or Graduate		

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/studentservices/counseling

Major Required Courses:	ine Counseling is available: https://www.avc.edu/studentservices/counseling
	Area C Humanities: (min. 3 units)
CS 120(C/C++) or 121(Java) or 122(Python), Program. &	3 ART 100, 101, 102, 103, 104, 106, 110, 113, 120, 132, 135, 136+, 137+, 140,
ENGR 110+, Introduction to Engineering	3 145, 150, 163+,
ENGR 125+, Programming and Problem-Solving in MATLAB	4 CHIN 101, 102+, 201+, 202+
ENGR 185+, Digital Logic and Design	4 COMM 112, 114, 214+, 217+, 219+
ENGR 230+, Circuit Analysis	4 DA 101
MATH 150+, Calculus and Analytic Geometry	5 DFST 101, 102+, 105, 106, 201+, 202+
MATH 160+, Calculus and Analytic Geometry	4 ENGL 102, 111+, 112+, 221+, 222+, 225+, 227+, 230+, 231+, 235+, 242+,
MATH 230+, Introduction to Ordinary Differential Equations	4 253+, 256+, 257+, 259+, 265+, 279+
MATH 250+, Calculus and Analytic Geometry	4 FREN 101, 102+, 201+, 202+, 203+
PHYS 110+, General Physics	4 FTV 101, 103, 107, 108, 201, 203, 241, 251, 261
PHYS 120+, General Physics	4 GER 101, 102+, 201+, 202+
PHYS 211+, General Physics	5 HIST 101, 102, 103, 104, 105, 107, 108, 110, 111, 113, 115, 118, 119
Units Required for the Major	
other requirements for degree	MUS 101, 105, 111, 121+, 131, 132+, 151+, 153+, 185+, 231+, 232+, 251A+,
General Education	21-27 253A+, 253B+
Proficiency (See Proficiency Requirements)	* MUSC 102, 103, 107,108, 109
Electives	0-1 NF 150
Minimum Units Required for AS Degree	e 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 descripti	
AS General Education: At least 3 units from each of the following areas	
A, B, C, D1, D2, E, and F. Minimum Total GE Units Required: 21	Area D Language & Rationality: (min. 3 units from (1) and 3 units from (2))
Area A Natural Sciences: (min. 3 units)	1. Academic Composition: Courses fulfilling the written composition requirement
ANTH 101, 101L	shall be designed to include both expository and argumentative writing.
ASTR 101+, 101L+	
BIOL 100, 101+, 101L+, 102, 103, 104, 110+, 120+, 201+, 202+, 2	
CHEM 101+, 102+, 110+, 120+, 210+, 220+	2. Communication and Analytical Thinking
ELTE 101	BUS 113+
ERSC 101+	CA 103
GEOG 101+, 101L+, 102, 102L+	CS 120, 121, 122, 123
GEOL 101+, 101L+, 102+, 102L+	COMM 101, 107, 109, 112, 114, 115, 217+, 219+
PHYS 101, 102+, 110+, 120+, 211+	ENGL 102+, 103+
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101	ENGL 102+, 103+ GEOG 201, 205
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units)	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 115+, 116+, 120+, 124+, 128+, 135+, 140+, 148+
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 115+, 116+, 120+, 124+, 128+, 135+, 140+, 148+ 150+, 160+, 220+, 230+, 250+
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 115+, 116+, 120+, 124+, 128+, 135+, 140+, 148+ 150+, 160+, 220+, 230+, 250+ PHIL 101, 106, 110, 201+
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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)
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected)
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected) DA 111
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ DFST 105, 106, 110	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ DFST 105, 106, 110 ECON 100, 101+, 102+, 110	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105 HE 101, 120, 201
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ DFST 105, 106, 110 ECON 100, 101+, 102+, 110 GEOG 105, 106, 110	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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, ** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105 HE 101, 120, 201 KINT 100
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ 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, 114, 118, 118	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105 HE 101, 120, 201 KINT 100 LIB 107, 110
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ 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+	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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, ** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105 HE 101, 120, 201 KINT 100
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ 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+	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105 HE 101, 120, 201 KINT 100 LIB 107, 110
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ 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+	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105 HE 101, 120, 201 KINT 100 LIB 107, 110
PHYS 101, 102+, 110+, 120+, 211+ PSCI 101 Area B Social & Behavioral Sciences: (min. 3 units) AJ 201, 204, 206 ANTH 102, 103, 110, 112, 140 BUS 101, 212 CFE 102, 103+ COMM 217+ 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, 114, 116+, 118+, 118+, 11	ENGL 102+, 103+ GEOG 201, 205 MATH 110+, 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,** (** Courses must be taken from a discipline not previously selected) DA 111 HD 100, 101, 102, 103, 105 HE 101, 120, 201 KINT 100 LIB 107, 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.

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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.