

Associate in Pre-Engineering - Computer and Electrical Engineering Emphasis, A.P.E.

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Requirements

The pre-engineering program at UVU has been created for students who plan to complete the first two to three years of their engineering education at the ABET accredited UVU, then either continue at UVU or transfer to a baccalaureate university to complete their engineering degree. With adequate planning, pre-engineering coursework completed at UVU will be sufficient for students to remain at UVU or to transfer to all of the Utah universities with baccalaureate engineering degrees. All students who declare pre-engineering as their major are automatically accepted into pre-engineering status. After completion of the pre-engineering program at UVU, the student applies for professional status at UVU or at an institution of the student's choice.

Total Program Credits: 69

General Education Requirements:		28 Credits
	ENGL 1010 Introduction to Academic Writing CC	3
or	ENGL 1005 Literacies and Composition Across Contexts CC (5)	
	ENGL 2010 Intermediate Academic Writing CC	3
Complete the following Natural and Physical Science courses:		
	Biology	3
	CHEM 1210 Principles of Chemistry I PP	4
	CHEM 1215 Principles of Chemistry I Laboratory	1
	PHYS 2210 Physics for Scientists and Engineers I PP	4
	PHYS 2215 Physics for Scientists and Engineers I Lab	1
Complete any combination of the following with no more than 1 course each from Humanities, Fine Arts, and Social/Behavioral Science:		6
	Humanities (from list)	
	Fine Arts (from list)	
	Social/Behavioral Sciences (from list)	
Complete any American Institutions course:		3
	POLS 1000 American Heritage SS (3)	
	HIST 2700 US History to 1877 AS	
and	HIST 2710 US History since 1877 AS (6)	
	HIST 1700 American Civilization AS (3)	
	HIST 1740 US Economic History AS (3)	
	POLS 1100 American National Government AS (3)	
Discipline Core Requirements:		16 Credits
	MATH 1210 Calculus I QL	4
	MATH 1220 Calculus II	4
	ENGR 1030 Engineering Programming	3
or	CS 1400 Fundamentals of Programming (3)	
	PHYS 2220 Physics for Scientists and Engineers II PP	4

PHYS 2225	Physics for Scientists and Engineers II Lab	1
Emphasis Requirements:		11 Credits
ECE 1000	Introduction to Electrical and Computer Engineering	3
ECE 2250	Circuit Theory	3
ECE 2255	Circuit Theory Lab	1
ECE 2700	Digital Design I	3
ECE 2705	Digital Design I Lab	1
Emphasis Elective Requirements:		14 Credits
Students should carefully select electives from the following list (or other advisor approved courses), based on the engineering discipline (Computer or Electrical) they are interested in and the college or university they want to attend to finish their BS degree. See your advisor.		14
CS 1410	Object-Oriented Programming (3)	
CS 2300	Discrete Mathematical Structures I (3)	
CS 2420	Introduction to Algorithms and Data Structures (3)	
CS 2600	Computer Networks I (3)	
CS 2810	Computer Organization and Architecture (3)	
ENGR 1000	Introduction to Engineering WE (3)	
ENGR 2450	Computational Methods for Engineering Analysis (3)	
ENGR 1020	Survey of Engineering (1)	
MATH 2210	Calculus III (4)	
MATH 2250	Differential Equations and Linear Algebra (4)	
or	MATH 2270 Linear Algebra (3)	
and	MATH 2280 Ordinary Differential Equations (3)	

Graduation Requirements:

1. Completion of a minimum of 69 semester credits.
2. Overall grade point average of 2.0 (C) or above. 2.5 or above in Math, Science, and Engineering.
3. Residency hours -- minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

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Associate in Pre-Engineering - Computer and Electrical Engineering Emphasis, A.P.E. Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in [Wolverine Track](#).

Elective		2
	Semester total:	15
	Degree total:	69

Semester 1	Course Title	Credit Hours
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC or Literacies and Composition Across Context CC	3
Any approved Social/Behavioral Science, Humanities, or Fine Arts Distribution		3
CHEM 1210	Principles of Chemistry I PP	4
CHEM 1215	Principles of Chemistry I Laboratory	1
ECE 1000	Introduction to Electrical and Computer Engineering	3
Semester total:		14
Semester 2	Course Title	Credit Hours
ENGL 2010	Intermediate Academic Writing CC	3
MATH 1210	Calculus I QL	4
American Institutions		3
CS 1400 or ENGR 1030	Fundamentals of Programming or Engineering Programming	3
Semester total:		13
Semester 3	Course Title	Credit Hours
MATH 1220	Calculus II	4
PHYS 2210	Physics for Scientist and Engineers I PP	4
PHYS 2215	Physics for Scientist and Engineers I Lab	1
ECE 2700*	Digital Design I	3
ECE 2705*	Digital Design I Lab	1
Semester total:		13
Semester 4	Course Title	Credit Hours
Biology Distribution		3
PHYS 2220	Physics for Scientists and Engineers II PP	4
PHYS 2225	Physics for Scientists and Engineers II Lab	1
Elective		3
Elective		3
Semester total:		14
Semester 5	Course Title	Credit Hours
Any approved Social/Behavioral Science, Humanities, or Fine Arts Distribution		3
ECE 2250	Circuit Theory	3
ECE 2255	Circuit Theory Lab	1
Elective		3
Elective		3