



Pre Engineering (Calculus Start) Associate in Applied Science Five Semester Pathway Academic Year 2025-2026

Semester 1 (Fall)	Requirement	Recommended	Prerequisites	Corequisites	Credits	My Plan
ENGR 100	Introduction to Engineering		ENGL 080 or ENGL 101		2	
ENGL 100	English Composition		ENGL 080		3	
MATH 225	Discrete Mathematics	If pursuing Computer or Electrical Engineering Option	MATH 140, ENGL 080 or ENGL 101		3	
MATH 260	Calculus I		MATH 190		4	
PHYS 200	Physics for Engineers I with Lab		MATH 190	MATH 260	4	
Semester 2 (Spring)	Requirement	Recommended	Prerequisites	Corequisites	Credits	My Plan
COMM 201	Technical Writing/Communications		ENGL 100 or ENGL 101		3	
MATH 270	Calculus II		MATH 260		4	
ENGR 200	Engineering Statics	If pursuing Mechanical Engineering Option	ENGR 100, PHYS 200, MATH 260		3	
PHYS 250	Physics for Engineers II with Lab		PHYS 200, MATH 260		4	
ENGL 110	Oral Communications		ENGL 080 or ENGL 101		3	
Semester 3 (Fall)	Requirement	Recommended	Prerequisites	Corequisites	Credits	My Plan
CSCI 110	Principles of Computer Science		MATH 040		4	
ENGR 230	Thermodynamics I: Laws & Properties	If pursuing Mechanical Engineering Option - Offered Fall only	MATH 270, PHYS 200		3	
MATH 275	Intro to Differential Equations and Linear Algebra	Offered Fall Only	MATH 270		4	
CHEM 131	Chemistry for Engineers with Lab	Offered Fall only	MATH 190		4	
	Fine Arts or Humanities Elective		See course prerequisites	See course corequisites	3	
Semester 4 (Spring)	Requirement	Recommended	Prerequisites	Corequisites	Credits	My Plan
ENGR 216	Circuits I: Steady State Analysis	Offered Spring only		MATH 270, PHYS 250	3	
ENGR 172	Digital Logic	If pursuing Computer or Electrical Engineering Option - Offered Spring only	MATH 225		4	
ENGR 250	Strength of Materials	If pursuing Mechanical Engineering Option - Offered Spring only	ENGR 200, MATH 270		3	
MATH 280	Calculus III	If pursuing Mechanical Engineering Option	MATH 270		4	
ENGL 115	Introduction to Literature		ENGL 100 or ENGL 101		3	
	Social Science Elective		See course prerequisites	See course corequisites	3	
Semester 5 (Summer)	Requirement	Recommended	Prerequisites	Corequisites	Credits	My Plan
ENGR 217	Circuits II: System Dynamics with Lab	If pursuing Computer or Electrical Engineering Option - Offered Summer only	ENGR 216	COMM 201, MATH 275	4	

**For students starting at a more advanced level in math based on placement testing, they can substitute either CSCI 110 (Electrical/Mechanical Engineering) or CSCI 160 (Computer Engineering) in the place of MATH 140 & MATH 146 if testing at the pre calculus level or substitute a Fine Arts/Humanities elective in the place of MATH 190 if placing at the calculus level. Please note this is only available to students with upper level placement in mathematics.*

[Advice on Choosing Electives](#)



Associate in Applied Science Curriculum Worksheet

Pre Engineering

General Education Requirements					
COURSE CODE	COURSE TITLE	PREREQUISITES	COREQUISITES	CREDITS	MET
ENGL 100	English Composition	ENGL 080		3	
ENGL 115	Introduction to Literature	ENGL 100 or ENGL 101		3	
MATH 140	College Algebra*	MATH 040		3	
MATH 146	Introduction to Trigonometry*	MATH 040	MATH 140	1	
MATH 190	Precalculus*	MATH 140, MATH 146		3	
CHEM 131	Chemistry for Engineers with Lab	MATH 190		4	
ENGL 110	Oral Communications	ENGL 080 or ENGL 101		3	
	Social Science Electives			3	
Major Required Courses					
COURSE CODE	COURSE TITLE	PREREQUISITES	COREQUISITES	CREDITS	MET
COMM 201	Technical Writing	ENGL 100 or ENGL 101		3	
ENGR 100	Introduction to Engineering	ENGL 080 or ENGL 101		2	
ENGR 216	Circuits I: Steady-State Analysis		MATH 270, PHYS 250	3	
MATH 260	Calculus I	MATH 190		4	
MATH 270	Calculus II	MATH 260		4	
MATH 275	Introduction to Differential Equations with Linear Algebra	MATH 270		4	
PHYS 200	Physics for Engineers I with Lab	MATH 190	MATH 260	4	
PHYS 250	Physics for Engineers II with Lab	PHYS 200, MATH 260		4	
Computer Engineering Option					
CSCI 110	Principles of Computer Science	MATH 040		4	
ENGR 172	Digital Logic	MATH 225		4	
ENGR 217	Circuits II: System Dynamics	ENGR 216	COMM 201, MATH 275	4	
MATH 225	Discrete Mathematics	MATH 140, ENGL 080 or ENGL 101		3	
Electrical Engineering Option					
ENGR 172	Digital Logic	MATH 225		4	
ENGR 217	Circuits II: System Dynamics	ENGR 216	COMM 201, MATH 275	4	
MATH 225	Discrete Mathematics	MATH 140, ENGL 080 or ENGL 101		3	
Mechanical Engineering Option					
ENGR 200	Engineering Statics	ENGR 100, PHYS 200, MATH 260		3	
ENGR 230	Thermodynamics I: Laws & Properties	MATH 270, PHYS 200		3	
ENGR 250	Strength of Materials	ENGR 200, MATH 270		3	
MATH 280	Calculus III	MATH 270		4	

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