SOUTHERN MAINE COMMUNITY COLLEGE
envision a future

Pre Engineering
Associate in Applied Science
Five Semester Pathway Academic Year 2021-2022

Semester 1	Requirement	Recommended	Prerequisites	Corequisites	Credits	My Plan
ENGR 100	Introduction to Engineering		ENGL 095		2	
ENGL 100	English Composition		ENGL 090, ENGL 095		3	
	Social Science Elective		See course prerequisites	See course corequisites	3	
MATH 140*	College Algebra		MATH 050		3	
MATH 146*	Introduction to Trigonometry		MATH 050	MATH 140	1	
Semester 2	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
COMM 201	Technical Writing/Communications		ENGL 100 or ENGL 101		3	
MATH 190*	Precalculus		MATH 140, MATH 146		3	
ENGL 110	Oral Communications		ENGL 090, ENGL 095		3	
ENGL 115	Introduction to Literature		ENGL 100 or ENGL 101		3	
Semester 3	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
CHEM 131	Chemistry for Engineers with Lab		MATH 190		4	
MATH 260	Calculus I		MATH 190		4	
PHYS 200	Physics for Engineers I with Lab		MATH 190	MATH 260	4	
Semester 4	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
MATH 270	Calculus II		MATH 260		4	
ENGR 216	Circuits I: Steady State Analysis			MATH 270, PHYS 250	3	
PHYS 250	Physics for Engineers II with Lab		PHYS 200, MATH 260		4	
CSCI 110	Principles of Computer Science	If pursuing Computer Engineering Option	MATH 050		4	
ENGR 120	Digital Electronics	If pursuing Electrical Engineering Option	ENGR Program Acceptance		3	
ENGR 200	Engineering Statics	If pursuing Mechanical Engineering Option	ENGR 100, PHYS 200, MATH 260		3	
Semester 5	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
MATH 280	Calculus III		MATH 270		4	
MATH 275	Intro to Differential Equations and Linear Algebra		MATH 270		4	
ENGR 217	Circuits II: System Dynamics with Lab	If pursuing Computer or Electrical Engineering Option	ENGR 216	COMM 201, MATH 275	4	
ENGR 250	Strength of Materials	If pursuing Mechanical Engineering Option	ENGR 200, MATH 270		3	
ENGR 230	Thermodynamics I: Laws & Properties	If pursuing Mechanical Engineering Option	MATH 270, PHYS 200		3	

**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.*

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Associate in Applied Science
Curriculum Worksheet

Pre Engineering

General Education Requirements					
COURSE CODE	**COURSE TITLE**	**PREREQUISITES**	**COREQUISITES**	**CREDITS**	**MET**
ENGL 100	English Composition	ENGL 090, ENGL 095		3	
ENGL 115	Introduction to Literature	ENGL 100 or ENGL 101		3	
MATH 140	College Algebra*	MATH 050		3	
MATH 146	Introduction to Trigonometry*	MATH 050	MATH 140	1	
MATH 190	Precalculus*	MATH 140, MATH 146		3	
CHEM 131	Chemistry for Civil, Electrical, and Mechanical Engineers	MATH 190		4	
ENGL 110	Oral Communications	ENGL 090, ENGL 095		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 095		2	
ENGR 216	Circuits I: Steady State		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	
MATH 280	Calculus III	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 050		4	
ENGR 217	Circuits II: System Dynamics	ENGR 216	COMM 201, MATH 275	4	
Electrical Engineering Option					
ENGR 120	Digital Electronics	Program Acceptance		3	
ENGR 217	Circuits II: System Dynamics	ENGR 216	COMM 201, MATH 275	4	
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	

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2021-2022