

PRE-ENGINEERING

Associate in Science



The Associate in Science in Pre-Engineering program will provide students with a strong foundational education in mathematics, science, and engineering principles, enabling a smooth transition into a four-year bachelor's degree program in various engineering disciplines.

Students who complete the program will be prepared to:

- Analyze engineering problems and develop viable solutions using appropriate methods.
- Apply principles of physics and mathematics to solve engineering challenges.
- Explain fundamental engineering concepts across multiple disciplines.
- Design studies, collect data, and analyze results to draw valid conclusions.
- Use engineering software tools for design and simulation.

- Communicate engineering concepts and findings effectively through written and oral presentations.

Graduates will be equipped with the critical knowledge needed to pursue advanced studies in areas such as:

- **Civil Engineering**
- **Chemical Engineering**
- **Electrical Engineering**
- **Mechanical Engineering**
- **Computer Engineering**

Degree Requirements

Semester I		Credit Hours
COM 100	Public Speaking	3
ENG ____	Select <u>one</u> of the following:	3 (4)
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	
CHY 121	Chemistry I Lecture	3
CHY 122	Chemistry I Lab	1
_____	Advising Pathway	3-4
_____	Elective: Social Science	3
Semester II		
ENG 201	Technical Writing	3
MAT 163*	Calculus I	4
_____	Advising Pathway Course	3-4
_____	Advising Pathway Course	3-4
_____	Elective: Diversity	3
Semester III		
PHY 251	Physics I w Calculus Lecture	3
PHY 252	Physics I w Calculus Lab	1
MAT 164*	Calculus II	4
MAT ____*	Select <u>one</u> of the following:	3-4
	MAT 236 Statistics for STEM	
	MAT 291 Linear Algebra	
_____	Elective: Creative Arts/Humanities	3
_____	Advising Pathway Course	3-4
Semester IV		
PHY 253	Physics II w Calculus Lecture Physics	3
PHY 254	II w Calculus Lab	1
MAT 265*	Calculus III	4
MAT ____	Select <u>one</u> of the following:	3-4
	MAT 236 Statistics for STEM	
	MAT 291 Linear Algebra	
	MAT 293 Differential Equations	
_____	Advising Pathway	3-4
Total Credit Hour Requirements		63-66

*Placement determined by assessment test scores and/or prior college course-work