

Associate of Applied Science - Applied Pre-Engineering

Program Description

The Associate of Applied Science Degree in Applied Pre-Engineering is designed to provide students with a working knowledge of engineering concepts.

Program Contacts

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Program Outcomes

Upon successful completion of the Applied Pre-Engineering Degree program, the learner will be able to:

1. Articulate basic mathematical, scientific and applicable engineering principles. (EGR 102, MAT 220, MAT 230, PHY 150, PHY 151)
2. Model and solve problems using electronics, robotics and precision manufacturing principles. (CNC 101, CNC 102, CNC 201, CNC 202, ELT 130, ELT 183)
3. Utilize modern manufacturing techniques, skills and tools necessary to design, develop, implement, and improve integrated systems that include people, materials, information, equipment and energy. (CNC 101, CNC 102, CNC 201, CNC 202, EGR 102, ELT 130, ELT 183)
4. Write effective documents that are audience specific and describe technical operations or scientific principles. (EGR 102, ENG 101, ENG 102)
5. Work effectively as members or leaders of a team to accomplish an objective. (EGR 102, ELT 130)

Program Requirements

A minimum of 62 credit hours is required to complete the Applied Pre-Engineering Degree.

Course	Course Title	Credit Hours
I. General Education		
A. Foundation Studies (14 credits)		
1. College Composition (6 credits)		
	ENG101 College Composition I	3
OR	ENG103 College Composition I Honors	3
	ENG102 College Composition II	3
OR	ENG104 College Composition II Honors	3
2. Numeracy (5 credits)		
	MAT187 Precalculus	5
3. Critical Thinking (3 credits)		
B. Area Studies (8 credits)		
1. Physical and Biological Science (5 credits)		
	CHM151 General Chemistry I	5
2. Behavioral OR Social Science (3 credits)		
Choose one course from either list		
II. Applied Pre-Engineering Requirements		
	CNC101 CNC Machine Operator	2
	CNC102 CNC Machine Set Up	2
	CNC201 Comp Aided Program CNC Mach	3
	CNC202 3-D Program & Rapid Prototype	4
	ELT130 Introduction to Robotics	3
	ELT183 Digital Circuits	3
	EGR102 Introduction to Engineering	3
III. Related Requirements		
	MAT220 Calculus & Analytic Geometry I	5
	MAT230 Calculus & Analytic Geometry II	5
	PHY150 Physics Scientists/Engineer I	5

Course	Course Title	Credit Hours
PHY151	Physics Scientists/Engineer II	5