

## General Education

### Foundations: (13 Credits)

**Oral Communication (3 Credits)**

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**Quantitative Reasoning (3 Credits)**

- MATH 2410 Calculus I

**Technological Literacy (3 Credits)**

- CMSC 1380 Introduction to Programming in Python

**Written Communication (3 Credits)**

- ENGL 1200 College Composition

### Discoveries: (Credits 28)

*At least two (2) disciplines must be represented within each of the three (3) categories.*

**Art/Humanities (9 Credits)**

- ENGL 2230 Writing and the Natural Sciences

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**Natural Sciences & Technology (10 Credits)**

- PHYS 1500 General Physics I Lecture

- MATH 2420 Calculus II

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**Social Sciences (9 Credits)**

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### Elective or Wellness & Personal Health: (3 Credits)

- ENGT 1100 Introduction to Engineering Technology

### Competencies:

**Applied Methodologies**

- MECH 3100 Principles of Automatic Control

**Ethical Reasoning**

- MECH 4900 Senior Project Design

**Information Literacy**

- MECH 4900 Senior Project Design

**Intercultural Fluency**

- MECH 4910 Senior Project Implementation

**Keystone Experience**

- MECH 4910 Senior Project Implementation

**Quantitative Applications**

- MECH 4200 Machine Design and Kinematics

**Writing Intensive - Two (2) courses are required**

- MECH 3100 Principles of Automatic Control

- ENGL 2230 Writing and the Natural Sciences

## Program Requirements

### Required Major Courses: (66 Credits)

- ECET 1110 Electric Circuits I
- ECET 2160 Electric Circuits II
- ECET 2535 Digital Electronics Design
- ECET 3325 Introduction to Electric Power
- MECH 2000 Manufacturing Processes
- MECH 2200 Statics
- MECH 2400 Engineering Graphics and Computer Aided Design
- MECH 3100 Principles of Automatic Control
- MECH 3200 Dynamics
- MECH 3210 Fluid Power
- MECH 3220 Properties and Strength of Materials
- MECH 3325 Fundamentals of Programmable Logic Controllers
- MECH 3350 Advanced PLCs and Integration
- MECH 3500 Numerical Solution of Engineering Problems
- MECH 4000 Computer Integrated Manufacturing
- MECH 4100 Process Control
- MECH 4200 Machine Design and Kinematics
- MECH 4900 Senior Project Design
- MECH 4910 Senior Project Implementation
- PHYS 1510 General Physics I Laboratory
- PHYS 1600 General Physics II Lecture
  - ~And~ PHYS 1610 General Physics II Lab

### Major Electives: (3 Credits)

**Choose One:** CMSC3380, CMIS 3250, CMIS 3600, ECET 2570, ITE 3050, ITE 3750, ITE 3850, ITE 4200, ITE 4610, ITE 4710, MECH 4950, ROBO 2100

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### Free Electives: (7Credits)

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## Suggested Four Year Course Sequence

### Year 1

#### Fall Semester

ENGT 1100 Introduction to Engineering Technology  
MATH 2410 Analytical Geometry and Calculus I  
ENGL 1200 College Composition  
CMSC 1380 Intro. To Programming in Python  
Discoveries: Arts and Humanities

#### Spring Semester

ECET 1110 Electric Circuits I  
MATH 2420 Analytical Geometry and Calculus II  
MECH 2400 Engineering Graphics and Computer Aided Design  
ENGL 2230 Writing and the Natural Sciences  
Foundations: Oral Communication

### Year 3

#### Fall Semester

MECH 3325 Fundamentals of Programmable Logic Controllers  
MECH 3200 Dynamics  
MECH 3500 Numerical Solution of Engineering Problems  
Discoveries: Natural Sciences and Technology  
Discoveries: Social Sciences

#### Spring Semester

MECH 3210 Fluid Power  
MECH 3220 Properties and Strength of Materials  
MECH 3350 Advanced PLCs and Integration  
Discoveries: Arts and Humanities  
Discoveries: Social Sciences

### Year 2

#### Fall Semester

ECET 2535 Digital Electronics Design  
MECH 2000 Manufacturing Processes  
PHYS 1500 General Physics I  
~And~ PHYS 1510 General Physics I Lab  
ECET 2160 Electric Circuits II

#### Spring Semester

MECH 2200 Statics  
MECH 3100 Principles of Automatic Control  
PHYS 1600 General Physics II  
~And~ PHYS 1610 General Physics II Lab  
Discoveries: Social Sciences  
\*Suggested: ECON 2100 Principles of Microeconomics  
Free Elective

### Year 4

#### Fall Semester

MECH 4100 Process Control  
MECH 4200 Machine Design and Kinematics  
MECH 4900 Senior Project Design  
ECET 3325 Introduction to Electric Power

#### Spring Semester

MECH 4000 Computer-Integrated Manufacturing  
MECH 4910 Senior Project Implementation  
Major Elective  
Free Elective

