

## 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☐ \_\_\_\_\_☐ \_\_\_\_\_

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

☐ PHYS 1500 General Physics I☐ MATH 2420 Calculus II☐ \_\_\_\_\_

#### 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:** CMSC 3380, 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: (7 Credits)

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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

