

## General Education

### Foundations: (12 Credits)

#### Oral Communication (3 Credits)

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#### Quantitative Reasoning (3 Credits)

- MATH 1410 Pre-Calculus

#### Technological Literacy (3 Credits)

- ENGT 1100 Introduction to Engineering Technology

#### Written Communication (3 Credits)

- ENGL 1200 College Composition

### Discoveries: (29 Credits)

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

#### Art/Humanities (9 Credits)

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#### Natural Sciences & Technology (11 Credits)

- MATH 2410 Calculus I
- MATH 2420 Calculus II
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#### Social Sciences (9 Credits)

- ECON 1000 Elements of Economics
- ~Or~ ECON 2100 Principles of Microeconomics
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### Program Elective/Wellness & Personal Health: (3 Credits)

- CMSC 1200 Problem Solving and Programming Constructs

### Competencies:

#### Applied Methodologies

- ECET 2160 Electric Circuits II

#### Ethical Reasoning

- ECET 4900 Senior Project Proposal

#### Information Literacy

- ECET 4900 Senior Project Proposal

#### Intercultural Fluency

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#### Keystone Experience

- ECET 4910 Senior Project

#### Quantitative Applications

- MATH 2420 Calculus II

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

- ECET 3560 Microprocessor Engineering
- ECET 4910 Senior Project

## Program Requirements

### Required Major Courses: (46 Credits)

- ECET 1110 Electric Circuits I
- ECET 2160 Electric Circuits II
- ECET 2535 Digital Electronics Design
- ECET 2570 Intro to Microprocessor Design
- ECET 3535 Microprocessor Interfacing
- ECET 3560 Microprocessor Engineering
- ECET 4640 Computer Networking
- ECET 4900 Senior Project Proposal
- ECET 4910 Senior Project
- CMSC 1240 Computer Programming I
- PHYS 2500 University Physics I Lecture
  - ~And~ PHYS 2510 University Physics I Lab
- PHYS 2600 University Physics II Lecture
  - ~And~ PHYS 2610 University Physics II Lab
- ENGL 3230 Technical Writing

### Concentration Courses: (24 Credits)

- ECET 2215 Introduction to Instrumentation
- CMSC 2040 Object-Oriented Programming
- CMSC 3040 Data Structures
- CMSC 3240 Computer Architecture
- CMSC 3320 Technical Computing using JAVA
- CMSC 4000 Operating Systems
- MATH 1510 Discrete Structures
- MATH 3210 Linear Algebra I

### Major Electives: (6 Credits)

- Choose 2 from:** ECET 4950 ECET Internship, ECET 3990 Special Topics in ECET, CMSC 1380 Introduction to Programming in Python, CMSC 3360 Fortran, CMSC 3140 Analysis of Algorithms, CMSC 4200 Artificial Intelligence, CMSC 4080 Structures of Programming Languages, Any ITE course, Any CMSC course over 1240 not listed above, or Any MATH course in statistics or above Calculus II
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## Suggested Four Year Course Sequence

### Year 1

#### Fall Semester

CMSC 1200 – Problem Solving and Prog. Concepts  
ENGL 1200 – College Composition  
ENGT 1100 – Introduction to Engineering Technology  
Discoveries: Arts and Humanities  
Discoveries: Social Sciences

#### Spring Semester

CMSC 1240 Computer Programming I  
MATH 1510 Discrete Structures  
ECET 1110 Electric Circuits I  
MATH 1410 Pre-Calculus  
Foundations: Oral Communication

### Year 3

#### Fall Semester

CMSC 3240 Computer Architecture  
ECET 3535 Microprocessor Interfacing  
PHYS 2500 University Physics I  
PHYS 2510 University Physics I Lab  
Discoveries: Arts and Humanities  
or Intercultural Fluency

#### Spring Semester

CMSC 4000 Operating Systems  
ECET 3560 Microprocessor Engineering  
MATH 3210 Linear Algebra I  
PHYS 2600 University Physics II  
PHYS 2610 University Physics II Lab

### Year 2

#### Fall Semester

CMSC 2040 Object-Oriented Programming  
ECET 2160 Electric Circuits II  
ECET 2535 Digital Electronics Design  
MATH 2410 Calculus I

#### Spring Semester

CMSC 3040 Data Structures  
ECET 2215 Introduction to Instrumentation  
ECET 2570 Intro to Microprocessor Design  
ENGL 3230 Technical Writing  
MATH 2420 Calculus II

### Year 4

#### Fall Semester

ECET 4640 Computer Networking  
ECET 4900 Senior Project Proposal  
ECON 1000 Elements of Economics  
or ECON 2100 Principles of Microeconomics  
Major Elective  
Discoveries: Arts and Humanities

#### Spring Semester

CMSC 3320 Technical Computing Using JAVA  
ECET 4910 Senior Project  
Major Elective  
Discoveries: Social Sciences  
Discoveries: Natural Sciences and Technology

