PennWest UNIVERSITY

Degree: BS

College: College of Science, Technology & Business

Major: Electrical Engineering Technology

Major Code: ELEC

Concentration: Computer Engineering Technology (CETE)

Credits Required: 123

Minor: N/A

Minor Code: N/A

General Education

Foundations: (12 Credits)

Oral Communication (3 Credits)
- ☐ _____

Written Communication (3 Credits)
- ☐ ENGL 1200 College Composition

Quantitative Reasoning (3 Credits)
- ☐ MATH 1410 Pre-Calculus

Technological Literacy (3 Credits)
- ☐ ENGT 1100 Introduction to Engineering Technology

Discoveries: (Credits 29)

Art/Humanities (9 Credits)
- ☐ _____
- ☐ _____
- ☐ _____

Social Sciences (9 Credits)
- ☐ ECON 1000 Elements of Economics OR ECON 2100 Principles of Microeconomics
- ☐ _____
- ☐ _____

Natural Sciences & Technology (11 Credits)
- ☐ MATH 2410 Calculus I
- ☐ MATH 2420 Calculus II
- ☐ _____

Program Elective: (3 Credits)
- ☐ CMSC 1200 Problem Solving and Programming Constructs

Competencies:

Quantitative Applications
- ☐ MATH 2420 Calculus II

Applied Methodologies
- ☐ ECET 2160 Electric Circuits II

Intercultural Fluency
- ☐ _____

Ethical Reasoning
- ☐ ECET 4900 Senior Project Proposal

Information Literacy
- ☐ ECET 4900 Senior Project Proposal

Writing Intensive
- ☐ ECET 3560 Microprocessor Engineering
- ☐ ECET 4910 Senior Project

Keystone Experience
- ☐ 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 & PHYS 2510 University Physics I Lecture and Lab
- ☐ PHYS 2600 & PHYS 2610 University Physics II Lecture and Lab
- ☐ ENGL 3230 Technical Writing

Required 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 two of the below courses:

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, Any MATH course in statistics or above Calculus II

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 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 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 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