PennWest UNIVERSITY

Degree: Bachelor of Science
College: Science, Technology, and Business
Major: Mechatronics Engineering Technology
Major Code: METE
Concentration: N/A

Credits Required: 120
Minor: N/A
Minor Code: N/A

General Education

Foundations: (13 Credits)

Oral Communication (3 Credits)

- ☐ _____

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)

Art/Humanities (9 Credits)

- ☐ ENGL 2230 Writing and the Natural Sciences
- ☐ _____
- ☐ _____

Natural Sciences & Technology (10 Credits)

- ☐ PHYS 1500 General Physics I Lecture
- ☐ MATH 2420 Calculus II
- ☐ _____

Social Sciences (9 Credits)

- ☐ _____
- ☐ _____
- ☐ _____

Discoveries 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

- ☐ MECH 3100 Principles of Automatic Control
  - ☐ ~And~ 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)

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

Free Electives: (7Credits)

- ☐ _____
- ☐ _____
- ☐ _____

Updated 7/16/2024

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 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 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 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