

ENGINEERING TECHNOLOGY: SPECIALTY (ETS)

ETS1511 MOTORS AND CONTROLS (3.00 Credits)

This course provides a study of Direct Current (DC) and Alternating Current (AC) motors, teaching students to identify and define motor components, forces, NEMA ratings, and nameplate information. The course also covers inverter and Pulse Width Modulation (PWM) drives, as well as AC to DC rectifiers and signal regeneration for 3-phase systems.

Total Contact Hrs: 64.00

Lecture Hrs: 64.00

ETS2436C BIOMEDICAL INSTRUMENTATION (3.00 Credits)

This course develops students' proficiency in biomedical equipment maintenance through classroom and laboratory environments, where they will learn to evaluate, troubleshoot, test, and repair various types of biomedical equipment. This course prepares students for a related technical certification.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

Complete all the courses in the following option:

- Option 1 - Prerequisite: CET1117C (minimum grade: C) and EET1141C (minimum grade: C)

ETS2527 ELECTROMECHANICAL SYSTEMS (3.00 Credits)

This course covers gears and gearboxes, belts and pulleys, chains and sprockets, and alignments and measurements commonly found in the industrial environment. This course prepares students for a related technical certification.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

ETS2542C PROGRAMMABLE LOGIC CONTROLLERS (3.00 Credits)

This course provides students with the fundamental concepts of programmable controllers, focusing on Programmable Logic Controllers (PLC) principles, programming, and fundamentals needed for simple process control.

Total Contact Hrs: 64.00

Lecture Hrs: 48.00

Lab Hrs: 16.00

Complete all the courses in the following option:

- Option 1 - Prerequisite: CET1114C (minimum grade: C) and EET1084C (minimum grade: C)

ETS2940 BIOMEDICAL ENGINEERING TECH.INTERNSHIP (3.00 Credits)

This course includes a 234-hour internship at an appropriate medical facility, where students will participate in orientation, biomedical engineering instrumentation theory, safety standards, hands-on preventive maintenance procedures, and equipment repair activities. All aspects of the course will be directly supervised by the medical facility staff.

Total Contact Hrs: 234.00

Clinical Hrs: 234.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LIABILITY INSURANCE \$8.15

Complete all the courses in the following option:

- Option 1 - Prerequisite: CET1117C (minimum grade: C) and HSC1531 (minimum grade: C)