EEM - INDUSTRIAL ELECTRONICS TECH (EEM)

EEM 117 AC/DC Circuits I 4 SHC

This course is a study of direct and alternating theory, Ohm's law, series, parallel, and combination circuits. Circuits are constructed and tested.

Lecture Hours: 2

Lab/Clinical Hours: 6

EEM 118 AC/DC Circuits II 4 SHC

This course is a continuation of the study of direct and alternating current theory to include circuit analysis using mathematics and verified with electrical measurements.

Prerequisites: EEM 117.

Lecture Hours: 2

Lab/Clinical Hours: 6

EEM 140 National Electrical Code 3 SHC

This course is a study of the National Electrical Code and is based on the latest codes as published by the National Fire Protection Association (NFPA).

Prerequisites: EEM 117.

Lecture Hours: 3

Lab/Clinical Hours: 0

EEM 151 Motor Controls I 4 SHC

This course is an introduction to motor controls, including a study of the various control devices and wiring used in industrial processes.

Lecture Hours: 3

Lab/Clinical Hours: 3

EEM 162 Introduction to Process Control 3 SHC

This course is an introduction to control systems theory and process control characteristics.

Lecture Hours: 2

Lab/Clinical Hours: 3

EEM 170 Electrical Installation 3 SHC

This course covers electrical wiring techniques commonly used in commercial, industrial, and residential wiring.

Lecture Hours: 2

Lab/Clinical Hours: 3

EEM 200 Semiconductor Devices 4 SHC

This course is a study of solid state devices such as FETs, Op Amps and the thyristor family.

Prerequisites: EEM 117.

Lecture Hours: 3

Lab/Clinical Hours: 3

EEM 231 Digital Circuits I 3 SHC

This course is a study of the logic elements, mathematics, components, and circuits utilized in digital equipment. Emphasis is placed on the function and operation of digital integrated circuit devices.

Lecture Hours: 2

Lab/Clinical Hours: 3

EEM 241 Microprocessor I 3 SHC

This course is an introduction to basic microprocessor concepts such as microprocessor structure, numbering systems, computer arithmetic, programming, architecture, and basic interfacing techniques.

Prerequisites: EEM 231.

Lecture Hours: 2

Lab/Clinical Hours: 3

EEM 251 Programmable Controllers 3 SHC

This course is an introduction to programmable control systems with emphasis on basic programming techniques. A variety of input/output devices and their applications are covered.

Lecture Hours: 2

Lab/Clinical Hours: 3

EEM 273 Advanced Process Control 3 SHC

This course covers the application of control systems and process control. An overview covering the use of analytical and calibration equipment is included.

Prerequisites: EEM 162.

Lecture Hours: 2

Lab/Clinical Hours: 3