

# COURSE DESCRIPTIONS

## INDUSTRIAL TECHNOLOGY

### ELMT 1266 PRACTICUM - ELECTROMECHANICAL TECHNOLOGY

**Format:** (2 credit hours)

16 external hrs. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

**Credits:** 2

**Distribution:** ELMT

**Course Fee:** Lab Fee = \$24

### ELMT 1301 PROGRAMMABLE LOGIC CONTROLLERS

**Format:** 2 lecture / 2 lab (3 credit hours)

An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment.

**Credits:** 3

**Distribution:** ELMT

**Course Fee:** Lab Fee = \$24

### ELMT 2337 ELECTRONIC TROUBLESHOOTING/SERVICE/REPAIR

**Format:** 2 lecture / 2 lab (3 credit hours)

In-depth coverage of electronic systems, maintenance, troubleshooting, and repair. Topics include symptom identification, proper repair procedures, repair checkout, and preventative maintenance. Emphasis on safety and proper use of test equipment. May be offered as a capstone course.

**Credits:** 3

**Distribution:** ELMT

**Course Fee:** Lab Fee = \$24

### ELMT 2339 ADVANCED PROGRAMMABLE LOGIC CONTROLLERS

**Format:** 2 lecture / 2 lab (3 credit hours)

An advanced applications of programmable logic controllers as used in industrial environments including concepts of programming, industrial applications, troubleshooting ladder logic, and interfacing to equipment.

**Credits:** 3

**Distribution:** ELMT

**Course Fee:** Lab Fee = \$24

### ELPT 1311 BASIC ELECTRICAL THEORY

**Format:** 3 lecture (3 credit hours)

An overview of the theory and practice of electrical circuits including calculations as applied to alternating and direct current.

**Credits:** 3

**Distribution:** ELPT

**Course Fee:** Lab Fee = \$24

### ELPT 1325 NATIONAL ELECTRIC CODE I

**Format:** 3 lecture (3 credit hours)

An introductory study of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on writing design, protection, methods, and materials; equipment for general use; and basic calculations.

**Credits:** 3

**Distribution:** ELPT

**Course Fee:** Lab Fee = \$24

### ELPT 1341 MOTOR CONTROL

**Format:** 2 lecture / 2 lab (3 credit hours)

Study of the operating principles of solid-state controls along with their practical applications. Topics include barking, jogging, plugging, and safety interlocks.

**Credits:** 3

**Distribution:** ELPT

**Course Fee:** Lab Fee = \$24

## ELPT 1357 INDUSTRIAL WIRING

**Format:** 2 lecture / 2 lab (3 credit hours)

Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures.

**Credits:** 3

**Distribution:** ELPT

**Course Fee:** Lab Fee = \$24

## ELPT 2325 NATIONAL ELECTRICAL CODE II

**Format:** 3 lecture (3 credit hours)

In-depth coverage of the National Electrical Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on writing protection and methods, special conditions, and advanced calculations.

**Credits:** 3

**Distribution:** ELPT

**Course Fee:** Lab Fee = \$24

## INMT 2345 INDUSTRIAL TROUBLESHOOTING

**Format:** 2 lecture / 2 lab (3 credit hours)

An advanced study of the techniques used in troubleshooting various types of industrial equipment to include mechanical, electrical, hydraulic, and pneumatic systems and their control devices. Emphasis will be placed on the use of schematics and diagrams in conjunction with proper troubleshooting procedures.

**Credits:** 3

**Distribution:** INMT

**Course Fee:** Lab Fee = \$24

## INTC 1305 INTRO TO INSTRUMENTATION

**Format:** 2 lecture / 2 lab (3 credit hours)

Professional requirements of the instrumentation technician including an introduction to computer and calculator applications involved in basic electronic circuit analysis.

**Credits:** 3

**Distribution:** INTC

**Course Fee:** Lab Fee = \$24

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