

ELECTRICIAN (ELPT)

ELPT 1325

National Electrical Code I

CRT HRS:3 LEC HRS:3 LAB HRS:0 OTH HRS:0

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

Prerequisite: None.

ELPT 1357

Industrial Wiring

CRT HRS:3 LEC HRS:2 LAB HRS:4 OTH HRS:0

This course provides instruction on wiring methods used for industrial installations. It includes motor circuits, raceway and busway installations, proper grounding techniques, and associated safety procedures.

Prerequisites: ELPT 1419, ELPT 1445.

ELPT 1411

Basic Electrical Theory

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course covers basic theory and practice of electrical circuits. It also includes calculations as applied to alternating and direct current.

Prerequisite: None.

ELPT 1419

Fundamentals of Electricity I

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course is an introduction to basic direct current (DC) theory including electron theory and direct current applications.

Prerequisite: None.

ELPT 1420

Fundamentals of Electricity II

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course introduces alternating current (AC). Includes AC voltage, frequency, mechanical and electrical degrees, waveforms, resistors, capacitors, and inductors.

Prerequisites: ELPT 1411, ELPT 1419, ELPT 1325, and ELPT 1429.

ELPT 1429

Residential Wiring

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course covers wiring methods, for single family and multi-family dwellings. It includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.

Prerequisites: None.

ELPT 1445

Commercial Wiring

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course provides instruction in commercial wiring methods. It includes over current protection, raceway panel board installation, proper grounding techniques, and associated safety procedures.

Prerequisites: ELPT 1411, ELPT 1419, ELPT 1325, and ELPT 1429.

ELPT 2264

Practicum- Field Experience

CRT HRS:2 LEC HRS:0 LAB HRS:0 OTH HRS:20

This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college and student. The student will be required to, as outlined in the learning plan, apply the theory, concept and skills involving specialized materials, tools, equipment, procedures, regulations, laws and interactions.

Prerequisites: ELPT 1357, ELPT 2319.

ELPT 2319

Programmable Logic Controllers I

CRT HRS:3 LEC HRS:2 LAB HRS:4 OTH HRS:0

This course covers the fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls.

Prerequisites: ELPT 1419, ELPT 1445.

ELPT 2325

National Electrical Code II

CRT HRS:3 LEC HRS:2 LAB HRS:0 OTH HRS:0

This course provides in-depth coverage of the National Electrical Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis is placed on wiring protection and methods, special conditions, and advanced calculations.

Prerequisites: ELPT 1411, ELPT 1419, ELPT 1325, and ELPT 1429.

ELPT 2447

CAPSTONE: Electrical Testing and Maintenance

CRT HRS:4 LEC HRS:3 LAB HRS:3 OTH HRS:0

This course covers proper and safe use of electrical power equipment test devices and the interpretation of test results. It includes protective relay testing and calibration, direct current (DC) testing, insulation power factor testing, and medium voltage switchgear.

Prerequisites: ELPT 1411, ELPT 1419, ELPT 1325, and ELPT 1429.