

ELECTRICAL TECHNOLOGY (ELEC)

ELEC 1000 — Electrical Construction I 6 credit hours

Lecture Hours: 3; Lab Hours: 6 This course is designed as the first training course for entry level electrical construction workers. Topics include an overview of electrical construction, safety, electricity, electrical circuits, the National Electrical Code (NEC), device boxes, bending conduit, cable raceways, conductors, and cables, electrical construction drawing, residential electrical services, and electrical testing equipment. Successful students in this course will receive NCCER Electrical Level 1 Certification.

Flat Fee: 40

Co-requisite(s): CNST 1000

Schedule type: Independent Study, Lecture

ELEC 1010 — Electrical Construction II 8 credit hours

Lecture Hours: 4; Lab Hours: 4 This is the second training course for entry level electrical construction workers. Topics include: (AC) alternating current, electric motors, lighting, pull boxes and junction boxes, conductor installation methods, cable trays, conductor terminations and splices grounding and bonding, circuit breakers and fuses, and control systems. Successful students in this course will receive NCCER Electrical 2 Certification.

Flat Fee: 40

Pre-requisite(s): CNST 1000, ELEC 1000

Schedule type: Independent Study, Lecture

ELEC 1210 — Intro to Elect Construction 3 credit hours

This course provides students with specialized instruction that emphasizes safety and efficient work practices.

Schedule type: Independent Study, Lecture, Web

ELEC 1230 — Basic Electrical Theory 3 credit hours

This course provides lectures and discussion to train students in the knowledge and practice of electrical theory in both DC and AC circuits.

Pre-requisite(s): ETRN 1112

Schedule type: Independent Study, Lecture, Web

ELEC 1250 — Proper Use Tools & Equipment 3 credit hours

This course provides lectures, hands-on demonstration, and discussion on safety and the proper methods for use of both power-operated and hand tools that are the most common in the electrical industry.

Schedule type: Independent Study, Laboratory, Lecture, Web

ELEC 1270 — House Wiring Fundamentals 3 credit hours

This course provides lectures, discussion, and hands-on experience in reading and interpreting blueline drawings for job layout, estimating the cost of the job, and ordering materials.

Schedule type: Independent Study, Laboratory, Lecture, Web

ELEC 1290 — Cable Raceways & Conduits 3 credit hours

This course provides lectures and discussion regarding the selection of conduit and other raceways as well as requirements for installation and compliance with the National Electrical Code.

Schedule type: Independent Study, Laboratory, Lecture, Web

ELEC 1400 — House Wiring Methods 3 credit hours

This course provides specialized instruction, discussion, and hands-on training in the proper selection and installation of materials that conform to the National Electrical Code.

Pre-requisite(s): MATH 1150, ELEC 1210, ELEC 1290

Schedule type: Independent Study, Laboratory, Lecture, Web

ELEC 1420 — Understand Meters & Instrument 3 credit hours

This course trains students in the methods and procedures for reading the meters and instruments most common in the electrical industry.

Pre-requisite(s): MATH 1150, ELEC 1210, ELEC 1290

Schedule type: Independent Study, Lecture, Web

ELEC 1440 — Understand Natl. Elec. Code 3 credit hours

This course provides specialized instruction and discussion concerning the use of the National Electrical Code for all wiring applications.

Pre-requisite(s): ELEC 1420

Co-requisite(s): ENGL 1000

Schedule type: Independent Study, Lecture, Web

ELEC 1460 — Electric License Exam Review 3 credit hours

This course provides a thorough review of the National Electrical Code and related textbooks. It also covers the areas that are included in the Journeyman's Class "A" License examination.

Pre-requisite(s): MATH 1150, ELEC 1210, ELEC 1290

Schedule type: Independent Study, Laboratory, Lecture, Web

ELEC 2000 — Electrical Construction III 8 credit hours

Lecture Hours: 4; Lab Hours: 4 This course is for Commercial Electrical Construction and includes: load calculations, branch and feeder circuits, conductors, lighting, hazardous locations, distribution, transformers, commercial services, motor, and motor controls. Successful students in this course will receive NCCER Electrical Level 3 Certification.

Flat Fee: 40

Pre-requisite(s): CNST 1000, ELEC 1010

Schedule type: Independent Study, Lecture

ELEC 2010 — Electrical Construction IV 9 credit hours

Lecture Hours: 4; Lab Hours: 5 This course covers advanced commercial and industrial electrical issues and includes: health care facilities, emergency systems, specialty transformers, advanced controls, heat tracing and freeze protection, motor operation and maintenance, medium-voltage terminations/splices, special locations, and fundamentals of crew leadership. Successful students in this course will receive NCCER Electrical Level 3 Certification.

Flat Fee: 40

Pre-requisite(s): CNST 1000, ELEC 2000

Schedule type: Independent Study, Lecture