

ELECTRONIC CONTROL SYSTEMS TECHNOLOGY (CONT'D)

ELECTRICIAN FOUNDATIONS CERTIFICATE

Program Code: E.ELX.CER

Certificate

Graduation requirement — 16 semester hours

The Electrician Fundamentals Certificate program prepares students for entry-level positions in the installation, service, and repair of electrical circuits and systems used in residential, commercial, and industrial environments. Students can expect to find entry-level employment as electrical apprentices or electrical maintenance workers. ELX courses are offered in the Competency-Based Education (CBE) format.

Program Notes

- Competency-based education (CBE) programs offer potential academic credit based on mastery of clearly defined competencies (skills). With CBE, students take as much or as little time as they need in any given term to comprehend the material, master the skills, and demonstrate competencies. Competency-based programs employ flexible conditional open entry/exit enrollment models, abundant online content, and open lab concepts to meet the scheduling needs of students who may not be able to attend regular traditional classes. Competency-based programs can also recognize students' prior learning regardless of where, when, or how that learning took place. Students work at their own pace, but prior learning knowledge allows students to proceed when they have shown mastery of the skill, with the potential of considerably shortening the time needed for certificate completion.
- Prior learning assessment (PLA) is the process used to evaluate a student's current knowledge and previous learning experience for academic credit. This can be accomplished through standardized tests, course challenge examinations, and portfolio assessment. PLA credit-earning methods may significantly reduce the time and cost for program completion, and in some cases can also be used to fulfill prerequisites for higher-level college courses.

Required Program Courses (16 hours) Cr. Hrs.

ELX 110	Introduction to Electrical Fundamentals and Theories	1
ELX 111	Electrical Safety, Regulations, and Tooling	1
ELX 112	NEC Introduction, Definitions, Requirements, and Enclosures	1
ELX 113	Conductors, Cables, Wireways, and Math for the Trades	1
ELX 114	Electrical Formulae, Measurements, and Meters . . .	1
ELX 115	Electrical Lighting Technology and Practices . . .	2
ELX 116	HVACR Principles and Practices	2
ELX 117	Blueprints, Circuits, Feeders, and Taps	2
ELX 118	Motors, Generators, Industrial Applications, and Troubleshooting	2
ELX 119	Industrial Electrical Work, NEC Review, Contracting, and Estimating	2
EST 113	Work Experience and Ethics	1

Total Semester Credit Hours 16