

Student ID: _____
 Student Name: _____
 Advisor Name: _____

Catalog: 2021-2022 Catalog
 Program: Electrical Advanced Applications

This degree planner should be used for planning purposes only. Speak with an advisor about final course decisions.

Electrical Advanced Applications

More information available on the Building and Construction Technology website.

This Electrical Advanced Applications Certificate introduces the NCCER Carpentry level three and level four advanced skills for the electrical trades to include load calculations for branch and feeder circuits, conductor selection and calculations for installation, practical applications of lighting, hazardous locations, overcurrent protection, distribution equipment, transformers, commercial electrical services, motor calculations, voice, data, and video systems, and motor controls. Additional focus on applications specific to health care facilities, standby and emergency systems, basic electronic theory, considerations for fire alarm systems, installing specialty transformers, advanced controls, Heating, Ventilation, and Air Conditioning (HVAC) controls, heat tracing and freeze protection, motor operation and maintenance, medium-voltage terminations/splices, and applications for special locations.

Program Learning Outcomes

Upon completion of the Electrical Advanced Applications certificate program, students should be able to:

- Interpret advanced construction documents using industry standards in the electrical trade with special considerations to fire alarm systems and special facilities (e.g., schools and healthcare facilities)
- Research, interpret, and apply appropriate building and structural codes in advanced electrical applications (e.g., standby and emergency systems)
- Discuss the restrictions, standards, and requirements governing the electrical industry
- Formulate a construction safety and loss prevention program
- Estimate the materials and labor for an advanced electrical installation project
- Explain advanced electrical techniques required for certification in NCCER Electrical Level III (e.g., overcurrent protection, transformer installation) and Level IV (e.g., advanced controls, motor operation and maintenance)

Requirements

Course Name	Credit Hour(s)	Term Taken	Grade
AEC 233 - Construction Safety & Loss Prevention	2 Credit Hour(s)		
CON 164 - National Center for Construction Education & Research Electrical III	6 Credit Hour(s)		
CON 165 - National Center for Construction Education & Research Electrical IV	6 Credit Hour(s)		
EIC 135 - National Electrical Code II	4 Credit Hour(s)		
EIC 217 - Electrical Estimating/Costing	4 Credit Hour(s)		

Total Credit Hours: 21

Notes: