



Program Planning Guide

Residential Electrical Certificate (C35130RE)

Program Length: 3 semesters

Program Sites: Chatham Main Campus

Career Pathway Options: Associate in Applied Science Degree in Electrical Systems Technology;
Diploma in Electrical Systems Technology; Certificate in Residential Electrical

Suggested Course Schedule		Class	Lab	Work	Credits	Notes:
1st Semester (fall)						
BPR 130	Print Reading - Construction	3	0	0	3	
CST 131	OSHA/Safety Certification	2	2	0	3	
Total Semester Hours		5	2	0	6	
2nd Semester (spring)						
ELC 113	Residential Wiring	2	6	0	4	
Total Semester Hours		2	6	0	4	
3rd Semester (fall)						
ELC 122	Advanced Residential Wiring	2	4	0	4	
Total Semester Hours		2	4	0	4	
Total Semester Hours Required for Graduation: 14						



Course Descriptions

BPR 130 Print Reading-Construction

This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.

CST 131 OSHA/Safety/Certification

This course covers the concepts of work site safety. Topics include OSHA regulations, tool safety, and certifications which relate to the construction industry. Upon completion, students should be able to identify and maintain a safe working environment based on OSHA regulations and maintain proper records and certifications.

ELC 113 Residential Wiring

This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout, and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

ELC 122 Advanced Residential Wiring

Prerequisites: ELC 113

This course introduces advanced topics in residential electrical installations including the requirements of the National Electrical Code (NEC). Topics include NEC, special purpose outlets, telephone and low voltage signal systems, swimming pool electrical systems, home automation systems, standby power systems and residential utility-interactive photovoltaic systems. Upon completion, students should be able to properly install conduits, wiring, electrical distribution equipment, low voltage, standby power, automated systems, and utility-interactive photovoltaic systems associated with advanced residential electrical installations.