

Electrical Construction

Program Description:

Full-time day and swing shift programs are available for students seeking to earn a degree or certificate in electrical construction for jobs in commercial and residential construction, public utility agencies, and industrial construction and maintenance. The program also provides extended learning opportunities for persons previously or currently employed in these and related occupations. Students interested in receiving an ELO1 license should consult with career advisors to ensure enrollment in the appropriate program.

For program costs and fees refer to the catalog TUITION AND FEES PAGE.

Program Learning Outcomes:

1. Install, test and repair residential, commercial and industrial wiring systems
2. Work safely according to OSHA and NFPA Standards as well as contractor and customer safety protocols and policies
3. Recognize potential hazards
4. Interpret and comply with the National Electric Code NFPA 70 book and local codes
5. Interpret all sections of blueprints and draft electrical circuits
6. Integrate carpentry, masonry, plumbing and HVACR systems with electrical installation and maintenance
7. Produce take-off lists
8. Install new materials for existing and new projects

Electrical Construction AAS (~~123-163 credits~~ 120-160 credits)

Required Courses

Quarter 1	ELCON101	Introduction to Electrical Construction	3
	ELCON102	Applied Physical Science	5
	ELCON103	Hand and Power Tools	4
	ELCON108	NFPA 70E Standards	4
Quarter 2	ELCON104	Electrical Service Installation	4
	ELCON105	Electrical Components	4
	ELCON109	Residential Design	3
	ELCON110	Residential Wiring Techniques	3
Quarter 3	ELCON106	Introduction to Residential Wiring	3
	ELCON107	National Electric Code	4
	ELCON112	Introduction to Blueprint Reading	3

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	ELCON113	Blueprint Reading Applications	5
Quarter 4	ELCON111	Systems Troubleshooting	3
	ELCON114	New Residential Technologies	4
	ELCON201	Specialty Tools	4
	ELCON202	Commercial Wiring	3
	ELCON203	Commercial Codes and Regulations	3
Quarter 5	ELCON204	Commercial Material Identification	3
	ELCON205	Commercial Installation	3
	ELCON206	Industrial Wiring	3
	ELCON207	Industrial Material Identification	3
	ELCON208	Industrial Installation	3
Quarter 6	ELCON209	Industrial Hazards	3
	ELCON210	Motors and Controllers	4
	ELCON211	Project Estimation	5
	ELCON212	Control Circuits	3
Quarter 7	ELCON213	Motors and Controllers Applications	3
	ELCON214	Transformers	3
	ELCON215	Advanced Motor Controls	3
	ELCON216	New Technology Commercial	4
Electives			
	ELCON220	Advanced Projects I	40 1-10
	ELCON221	Advanced Projects II	40 1-10
	ELCON222	Advanced Projects III	40 1-10
	ELCON223	Advanced Projects IV	40 1-10

General Education Requirements

Communications	5 credits required
ENGL175	
ENGL&101	ENGLISH COMPOSITION I

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Humanities/Social Sciences/Natural Sciences/Other 5 credits required

BIOL&160	GENERAL BIOLOGY
BIOL&175	HUMAN BIOLOGY WITH LAB
BIOL&241	ANATOMY & PHYSIOLOGY I
BIOL&242	HUMAN A&P II
BIOL&260	MICROBIOLOGY
CHEM&121	INTRODUCTION CHEMISTRY
CHEM&131	INTRODUCTION TO ORGANIC/BIOCHEMISTRY
CMST&102	INTRO TO MASS MEDIA
CMST&152	INTERCULTURAL COMMUNICATION
CMST&210	INTERPERSONAL COMMUNICATION
CMST&220	PUBLIC SPEAKING
ECON&201	MICROECONOMICS
NUTR&101	INTRO TO NUTRITION
POLS&101	INTRO TO POLITICAL SCIENCE
PSYC&100	GENERAL PSYCHOLOGY
PSYC&200	LIFESPAN PSYCHOLOGY
SOC&101	INTRO TO SOCIOLOGY

Quantitative

5 credits required

MATH172	APPLIED BUSINESS MATH
MATH&141	PRECALCULUS I
MATH&142	PRECALCULUS II
MATH&146	INTRODUCTION TO STATISTICS
MATH&151	CALUCLUS I
MATH&152	CALCULUS II

Note: See a Career Advisor prior to choosing courses that meet general education requirements