

ADDENDUM 2021-2022 CATALOG

ELECTRICAL CONSTRUCTION AAS (~~124-164~~ 144 CREDITS)

CIP Code

46.0302

- 9 quarter AAS
- Maximum class size: 18
- Student to teacher ratio: 18:1
- Enrollment point: Fall, Spring
- This is a primarily face-to-face program with web-enhanced activities
- Students will use both hand, and power tools, transportation vehicles, ladders, and general construction equipment in this program.
- This is a 9 quarter program. Both day and evening courses are offered.
- Prior to entering the ELCON program, students are responsible for PPE and personal tool purchase. -Tool list given to students upon entrance.

Outcomes

Work safely according to OSHA and NFPA Standards as well as contractor and customer safety protocols and policies

Integrate carpentry, masonry, plumbing and HVACR systems with electrical installation and maintenance

Interpret and comply with the National Electric Code NFPA 70 book and local codes

Install, test and repair residential, commercial and industrial wiring systems

Interpret all sections of blueprints and draft electrical circuits

Install new materials for existing and new projects

Recognize potential hazards

Produce take-off lists

Required Courses

Electrical Construction AAS (~~124-164~~ 150 Credits)

ELCON 101	Introduction to Electrical Construction	3
ELCON 102	Applied Physical Science	5
ELCON 103	Hand and Power Tools	4
ELCON 104	Electrical Service Installation	4
ELCON 105	Electrical Components	4
ELCON 106	Introduction to Residential Wiring	3
ELCON 107	National Electric Code	4
ELCON 108	NFPA 70E Standards	4
ELCON 109	Residential Design	3
ELCON 110	Residential Wiring Techniques	3
ELCON 111	Systems Troubleshooting	3
ELCON 112	Introduction to Blueprint Reading	3
ELCON 113	Blueprint Reading Applications	5
ELCON 114	New Residential Technologies	4
ELCON 201	Specialty Tools	4
ELCON 202	Commercial Wiring	3
ELCON 203	Commercial Codes and Regulations	3
ELCON 204	Commercial Material Identification	3
ELCON 205	Commercial Installation	3
ELCON 206	Industrial Wiring	3

ELCON 207	Industrial Material Identification	3
ELCON 208	Industrial Installation	3
ELCON 209	Industrial Hazards	3
ELCON 210	Motors and Controllers	4
ELCON 211	Project Estimation	5
ELCON 212	Control Circuits	3
ELCON 213	Motors and Controllers Applications	3
ELCON 214	Transformers	3
ELCON 215	Advanced Motor Controls	3
ELCON 216	New Technology Commercial	4
ELCON 220	Advanced Projects I	1 to 10
ELCON 221	Advanced Projects II	1 to 10
ELCON 222	Advanced Projects III	1 to 10
ELCON 223	Advanced Projects IV	1 to 10

A total of 24 credits of Advanced Projects (220, 221, 222, 223, 224, 225, 226 and/or 227) required in any combination

Total Core Credits 129

General Education Requirements

Communications (5 Credits Required)

ENGL 175	Professional Writing	5
ENGL& 101	English Composition I	5

Humanities/Social Sciences/Natural Sciences/Other (5 Credits Required)

<u>BIOL& 160</u>	General Biology	5
<u>BIOL& 175</u>	Human Biology with Lab	5
<u>BIOL& 241</u>	Human Anatomy and Physiology I	5
<u>BIOL& 242</u>	Human Anatomy and Physiology II	5
<u>BIOL& 260</u>	Microbiology	5
<u>CHEM &121</u>	General Chemistry	5
<u>CHEM &131</u>	Introduction to Organic/Biochemistry	5
<u>CMST& 102</u>	Introduction to Mass Media	5
<u>CMST& 152</u>	Intercultural Communication	5
<u>CMST& 210</u>	Interpersonal Communication	5
<u>CMST& 220</u>	Public Speaking	5
<u>ECON& 201</u>	Microeconomics	5
<u>HIST 101</u>	A History of Science and Technology	5
<u>HREL 111</u>	Interviewing and Career Success	5
<u>HUM &101</u>	Introduction to Humanities	5
<u>NUTR& 101</u>	Intro to Nutrition	5
<u>PHYS &114</u>	Introductory Physics I (Algebra based Physics)	5
<u>PHYS &221</u>	Engineering Physics I w/LAB	5
<u>PHYS &222</u>	Engineering Physics II w/LAB	5
<u>PHYS &223</u>	Engineering Physics III w/LAB	5
<u>POLS &101</u>	Introduction to Political Science	5
<u>PSYC &100</u>	General Psychology	5
<u>PSYC &200</u>	Lifespan Psychology	5
<u>SOC &101</u>	Introduction to Sociology	5

Quantitative (5 Credits Required)

<u>AMATH 170</u>	Engineering Foundational Mathematics	5
<u>MATH 172</u>	Business Math	5
<u>MATH& 107</u>	Math in Society	5
<u>MATH& 141</u>	Precalculus I	5
<u>MATH& 142</u>	Precalculus II	5
<u>MATH& 146</u>	Statistics	5
<u>MATH& 151</u>	Calculus	5
<u>MATH& 152</u>	Calculus II	5

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