

Electrical Systems Technology

Electrical Systems Technology (A35130)

Degree Awarded

The Associate in Applied Science Degree – Electrical Systems Technology is awarded by the college upon completion of this program.

- Electrical Systems Technology - Electrical Design Track (A35130D) (p. 1)
- Electrical Systems Technology - Manufacturing Maintenance Technician Track (A35130M) (p. 1)
- Electrical Systems Technology - Solar Photovoltaic Track (A35130S) (p. 2)

Admissions

- Completion of the high school diploma or equivalent is required.
- Many courses have prerequisites or co-requisites; check the Course Descriptions section for details.

Contact Information

The Electrical Systems Technology program is in the Skilled Trades Division. For more information, call the program office at 704.330.4458 or the Skilled Trades Division at 704.330.4424.

Electrical Systems Technology - Electrical Design Track (A35130D)

General Education Requirements

ENG 111	Writing and Inquiry	3.0
COM 231	Public Speaking	3.0

Select one of the following: 3.0

MAT 110	Mathematical Measurement and Literacy	
MAT 143	Quantitative Literacy	
MAT 171	Precalculus Algebra	

Select one of the following: 3.0

ART 111	Art Appreciation	
ART 114	Art History Survey I	
ART 115	Art History Survey II	
HUM 120	Cultural Studies	
HUM 130	Myth in Human Culture	
MUS 110	Music Appreciation	
MUS 112	Introduction to Jazz	
PHI 215	Philosophical Issues	
PHI 240	Introduction to Ethics	

Select one of the following: 3.0

ECO 251	Principles of Microeconomics	
ECO 252	Principles of Macroeconomics	
HIS 111	World Civilizations I	
HIS 112	World Civilizations II	
HIS 131	American History I	
HIS 132	American History II	

POL 120	American Government	
PSY 150	General Psychology	
SOC 210	Introduction to Sociology	

Major Requirements

ACA 122	College Transfer Success	1.0
ARC 114	Architectural CAD	2.0
ARC 225	Architectural Building Information Modeling I	2.0
ELC 112	DC/AC Electricity	5.0
ELC 113	Residential Wiring	4.0
ELC 114	Commercial Wiring	4.0
ELC 115	Industrial Wiring	4.0
ELC 117	Motors and Controls	4.0
ELC 118	National Electrical Code	2.0
ELC 119	NEC Calculations	2.0
ELC 121	Electrical Estimating	2.0
ELC 125	Diagrams and Schematics	2.0
ELC 128	Introduction to Programmable Logic Controller	3.0
ELC 234	Electrical System Design	3.0
BPR 130	Print Reading-Construction	3.0
WOL 110	Basic Construction Skills	3.0
Select 3.0 credit from the following:		3.0

WBL 111	Work-Based Learning I	
WBL 121	Work-Based Learning II	
ELC 130	Advanced Motors and Controls	
ELC 215	Electrical Maintenance	
ELC 220	Photovoltaic System Technology	
ALT 120	Renewable Energy Technologies	
SST 130	Modeling Renewable Energy	
ELC 228	Programmable Logic Controllers Applications	

Total Credits **64**

Electrical Systems Technology - Manufacturing Maintenance Technician Track (A35130M)

General Education Requirements

ENG 111	Writing and Inquiry	3.0
COM 231	Public Speaking	3.0

Select one of the following: 3.0

MAT 110	Mathematical Measurement and Literacy	
MAT 143	Quantitative Literacy	
MAT 171	Precalculus Algebra	

Select one of the following: 3.0

ART 111	Art Appreciation	
ART 114	Art History Survey I	
ART 115	Art History Survey II	
HUM 120	Cultural Studies	
HUM 130	Myth in Human Culture	
MUS 110	Music Appreciation	
MUS 112	Introduction to Jazz	
PHI 215	Philosophical Issues	
PHI 240	Introduction to Ethics	

Select one of the following: 3.0

REL 110	World Religions	
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Electrical Systems Technology

ECO 251	Principles of Microeconomics
ECO 252	Principles of Macroeconomics
HIS 111	World Civilizations I
HIS 112	World Civilizations II
HIS 131	American History I
HIS 132	American History II
POL 120	American Government
PSY 150	General Psychology
SOC 210	Introduction to Sociology

Major Requirements

ACA 122	College Transfer Success	1.0
ARC 114	Architectural CAD	2.0
ARC 225	Architectural Building Information Modeling I	2.0
ELC 112	DC/AC Electricity	5.0
ELC 113	Residential Wiring	4.0
ELC 114	Commercial Wiring	4.0
ELC 117	Motors and Controls	4.0
ELC 118	National Electrical Code	2.0
ELC 119	NEC Calculations	2.0
ELC 121	Electrical Estimating	2.0
ELC 125	Diagrams and Schematics	2.0
ELC 128	Introduction to Programmable Logic Controller	3.0
ELC 130	Advanced Motors and Controls	3.0
ELC 215	Electrical Maintenance	3.0
ELC 228	Programmable Logic Controllers Applications	4.0
WOL 110	Basic Construction Skills	3.0
WLD 112	Basic Welding Processes	2.0
Select 3.0 credits from the following:		3.0
ELC 115	Industrial Wiring	
ELC 127	Software for Technicians	
ELC 213	Instrumentation	
ELC 234	Electrical System Design	
ELC 220	Photovoltaic System Technology	
WBL 111	Work-Based Learning I	
WBL 121	Work-Based Learning II	

Total Credits **66**

Electrical Systems Technology - Solar Photovoltaic Track (A35130S)

General Education Requirements

ENG 111	Writing and Inquiry	3.0
COM 231	Public Speaking	3.0
Select one of the following:		3.0
MAT 110	Mathematical Measurement and Literacy	
MAT 143	Quantitative Literacy	
MAT 171	Precalculus Algebra	
Select one of the following:		3.0
ART 111	Art Appreciation	
ART 114	Art History Survey I	
ART 115	Art History Survey II	
HUM 120	Cultural Studies	
HUM 130	Myth in Human Culture	

MUS 110	Music Appreciation
MUS 112	Introduction to Jazz
PHI 215	Philosophical Issues
PHI 240	Introduction to Ethics
REL 110	World Religions

Select one of the following: 3.0

ECO 251	Principles of Microeconomics
ECO 252	Principles of Macroeconomics
HIS 111	World Civilizations I
HIS 112	World Civilizations II
HIS 131	American History I
HIS 132	American History II
POL 120	American Government
PSY 150	General Psychology
SOC 210	Introduction to Sociology

Major Requirements

ACA 122	College Transfer Success	1.0
ARC 114	Architectural CAD	2.0
ARC 225	Architectural Building Information Modeling I	2.0
ELC 112	DC/AC Electricity	5.0
ELC 113	Residential Wiring	4.0
ELC 114	Commercial Wiring	4.0
ELC 117	Motors and Controls	4.0
ELC 118	National Electrical Code	2.0
ELC 119	NEC Calculations	2.0
ELC 121	Electrical Estimating	2.0
ELC 125	Diagrams and Schematics	2.0
ELC 128	Introduction to Programmable Logic Controller	3.0
WOL 110	Basic Construction Skills	3.0
ELC 130	Advanced Motors and Controls	3.0
ELC 220	Photovoltaic System Technology	3.0
ELC 234	Electrical System Design	3.0

Select 4.0 credits from the following: 4.0

ALT 120	Renewable Energy Technologies
SST 130	Modeling Renewable Energy
ELC 115	Industrial Wiring
ELC 215	Electrical Maintenance
BPR 130	Print Reading-Construction

Total Credits **64**