ELECTRICAL TECHNOLOGY - AAS

Offered at: Big Sandy Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Gateway Community and Technical College, Hopkinsville Community College, Madisonville Community College, Owensboro Community and Technical College, Southcentral Kentucky Community and Technical College, West Kentucky Community and Technical College

Program Plan Number: 4603027039

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of "C" in the technical core and in those courses selected as technical electives.

Course	Title	Credits
General Education		
ENG 101	Writing I	3
Select one of the following three options:		3
MAT 116	Technical Mathematics	
MAT 126	Technical Algebra and Trigonometry	
Higher Level Quantitative Reasoning Course		
Natural Sciences		3
Social/Behavioral Sciences		3
Heritage/Humanities		3
Subtotal		15
Technical Core		
EET 119	Basic Electricity	5
or ELT 110	Circuits I	
EET 250	National Electrical Code	4
Select one of the following four options:		11-14
Option 1		
EET 270 & EET 271	Electrical Motor Controls I and Electrical Motor Controls I Lab	
EET 264 & EET 265	Rotating Machinery and Rotating Machinery Lab	
EET 272 & EET 273	Electrical Motor Controls II and Electrical Motor Controls II Lab	
Option 2		
EET 268 & EET 269	Rotating Machinery Electrical Motor Controls I and Rotating Machinery and Motor Controls I Lab	
EET 272 & EET 273	Electrical Motor Controls II and Electrical Motor Controls II Lab	
Option 3		
EET 270 & EET 271	Electrical Motor Controls I and Electrical Motor Controls I Lab	
EET 266 & EET 267	Rotating Machinery and Transformers and Rotating Machinery and Transformers Lab	
EET 272 & EET 273	Electrical Motor Controls II and Electrical Motor Controls II Lab	
Option 4		
EET 274 & EET 275	Electrical Motor Controls and Electrical Motor Controls Lab	
EET 264 & EET 265	Rotating Machinery and Rotating Machinery Lab	
EET 127	Electrical Technology Capstone	1
Digital Literacy [1]		3
General Education and Technical Core Subtotal		39-42
Students must complete one of the tracks listed below to complete the AAS requirements.		

[1] If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator.

Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Automated Industrial Controls Technician Track

Offered at: Big Sandy Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Hopkinsville Community College, Owensboro Community and Technical College, West Kentucky Community and Technical College

Program Plan Number: 460302704

Course	Title	Credits
General Education and Technical Core Subtotal		39-42
EET 276	Programmable Logic Controllers	2
EET 277	Programmable Logic Controllers Lab	2
Select one of the following two options:		3-5
FPX 100 & FPX 101	Fluid Power and Fluid Power Lab	
ELT 265	Applied Fluid Power	
Technical Electives		16
Total Credits		**62-67**

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for the Automated Industrial Controls Technician Track

Course	Title	Credits
All EET Prefix Courses		
All IMT Prefix Courses		
ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 130	Electrical Components	3
ACR 131	Electrical Components Lab	2
BBT 100	Introduction to HFC/Cable-TV	3
BBT 200	Introduction to Cellular Technology	2
BRX 110	Basic Blueprint Reading for Machinist	2
BRX 120	Basic Blueprint Reading	3
BRX 220	Blueprint Reading for Construction	3
CAD 100	Introduction to Computer Aided Design	3

CMM 114	Fundamentals of Machine Tools	6
ELT 103	Introduction to Engineering	3
ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 120	Digital I	3
ELT 210	Devices I	4
ELT 214	Devices II	4
ELT 220	Digital II	3
ELT 232	Computer Software Maintenance	3
ELT 234		3
ELT 260	Robotic and Industrial Automation	5
ELT 265	Applied Fluid Power	3
ESP 101	Introduction to Energy Systems	3
ISM 102	Fundamentals of Instrumentation	4
ISM 210	Fundamentals of Process Control	4
ISX 100	Industrial Safety	3
ISX 101	Introduction to Industrial Safety	3
WLD 140	Gas Metal Arc Welding	2
WLD 141	Gas Metal Arc Welding Fillet Lab	3
WLD 151	Basic Welding A	2
WLD 152	Basic Welding B	5

Construction Electrician Track

Offered at: Big Sandy Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Gateway Community and Technical College, Hopkinsville Community College, Madisonville Community College, Owensboro Community and Technical College, Southcentral Kentucky Community and Technical College, West Kentucky Community and Technical College

Program Plan Number: 460302702

Course	Title	Credits
General Education and Technical Core Subtotal		39-42
Select one of the following two options:		7-8
Option 1		
EET 154 & EET 155	Electrical Construction I and Electrical Construction I Lab	
EET 252 & EET 253	Electrical Construction II and Electrical Construction II Lab	
Option 2		
EET 254 & EET 255	Electrical Construction and Electrical Construction Lab	
Technical Electives		16
Total Credits		**62-66**

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Construction Electrician Track

Course	Title	Credits
All EET Prefix Courses		
ACR 100	Refrigeration Fundamentals	3

ACR 101	Refrigeration Fundamentals Lab	2
ACR 130	Electrical Components	3
ACR 131	Electrical Components Lab	2
BBT 100	Introduction to HFC/Cable-TV	3
BBT 200	Introduction to Cellular Technology	2
BRX 110	Basic Blueprint Reading for Machinist	2
BRX 120	Basic Blueprint Reading	3
BRX 220	Blueprint Reading for Construction	3
CAD 100	Introduction to Computer Aided Design	3
CMM 114	Fundamentals of Machine Tools	6
ELT 103	Introduction to Engineering	3
ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 120	Digital I	3
ELT 210	Devices I	4
ELT 214	Devices II	4
ELT 220	Digital II	3
ELT 222	Mechanics of Telephony	3
ELT 224	Basic Telecommunications Installation and Maintenance	3
ELT 232	Computer Software Maintenance	3
ELT 234		3
ELT 260	Robotic and Industrial Automation	5
ELT 265	Applied Fluid Power	3
ESP 101	Introduction to Energy Systems	3
FPX 100	Fluid Power	3
FPX 101	Fluid Power Lab	2
ISX 100	Industrial Safety	3
ISX 101	Introduction to Industrial Safety	3
ISM 102	Fundamentals of Instrumentation	4
ISM 210	Fundamentals of Process Control	4

Industrial Automation and Process Control Technician Track

Offered at: Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Owensboro Community and Technical College, West Kentucky Community and Technical College

Program Plan Number: 460302705

Course	Title	Credits
General Education and Technical Core Subtotal		39-42
ISM 102	Fundamentals of Instrumentation	4
ISM 210	Fundamentals of Process Control	4
FPX 100	Fluid Power	3
FPX 101	Fluid Power Lab	2
EET 276	Programmable Logic Controllers	2
EET 277	Programmable Logic Controllers Lab	2
Technical Electives		9
Total Credits		**65-68**

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with

the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for the Automation and Process Control Technician Track

Course	Title	Credits
All ETT Prefix Courses		
All IMT Prefix Courses		
ELT 103	Introduction to Engineering	3
ELT 120	Digital I	3
ELT 210	Devices I	4
ELT 214	Devices II	4
ELT 220	Digital II	3

Industrial Automation and Robotics Technician Track

Offered at: Bluegrass Community and Technical College, Elizabethtown Community and Technical College, West Kentucky Community and Technical College

Program Plan Number: 460302706

Course	Title	Credits
General Education and Technical Core Subtotal		39-42
EET 290	Troubleshooting Industrial Controls and Motors	4
Select one of the following two options:		4
EET 200 & EET 201	Robotic Systems I and Robotic Systems II	
IMT 200	Industrial Robotics and Robotic Maintenance	
EET 202	Robotic Maintenance	2
EET 203	Robotic Vision Systems	2
EET 276	Programmable Logic Controllers	2
EET 277	Programmable Logic Controllers Lab	2
EET 280	Multi-Platform Programmable Logic Controllers	4
Technical Electives		6
Total Credits		**65-68**

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Automation and Robotics Technician Track

Course	Title	Credits
All EET Prefix Courses		
All IMT Prefix Courses		
FPX 100	Fluid Power	3
FPX 101	Fluid Power Lab	2

Industrial Electrician Track

Offered at: Big Sandy Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Gateway Community and Technical College, Hopkinsville Community College, Owensboro Community and Technical College, Southcentral Kentucky Community and Technical College, West Kentucky Community and Technical College

Program Plan Number: 460302701

Course	Title	Credits
Required		
General Education and Technical Core Subtotal		39-42
Select one of the following two options:		7-8
Option 1		
EET 154 & EET 155	Electrical Construction I and Electrical Construction I Lab	
EET 252 & EET 253	Electrical Construction II and Electrical Construction II Lab	
Option 2		
EET 254 & EET 255	Electrical Construction and Electrical Construction Lab	
EET 276	Programmable Logic Controllers	2
EET 277	Programmable Logic Controllers Lab	2
Technical Electives		14
Total Credits		**64-68**

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Electrician Track

Course	Title	Credits
All EET Prefix Courses		
All IMT Prefix Courses		
ACR 100	Refrigeration Fundamentals	3
ACR 101	Refrigeration Fundamentals Lab	2
ACR 130	Electrical Components	3
ACR 131	Electrical Components Lab	2
BBT 100	Introduction to HFC/Cable-TV	3
BBT 200	Introduction to Cellular Technology	2
BRX 110	Basic Blueprint Reading for Machinist	2
BRX 120	Basic Blueprint Reading	3
BRX 220	Blueprint Reading for Construction	3
CAD 100	Introduction to Computer Aided Design	3
CMM 114	Fundamentals of Machine Tools	6
ELT 103	Introduction to Engineering	3
ELT 110	Circuits I	5
ELT 114	Circuits II	5
ELT 120	Digital I	3
ELT 210	Devices I	4
ELT 214	Devices II	4
ELT 220	Digital II	3
ELT 222	Mechanics of Telephony	3
ELT 224	Basic Telecommunications Installation and Maintenance	3
ELT 260	Robotic and Industrial Automation	5
ELT 265	Applied Fluid Power	3
ELT 232	Computer Software Maintenance	3

ELT 234		3
ESP 101	Introduction to Energy Systems	3
FPX 100	Fluid Power	3
FPX 101	Fluid Power Lab	2
ISX 100	Industrial Safety	3
ISX 101	Introduction to Industrial Safety	3
ISM 102	Fundamentals of Instrumentation	4
ISM 210	Fundamentals of Process Control	4
WLD 140	Gas Metal Arc Welding	2
WLD 141	Gas Metal Arc Welding Fillet Lab	3
WLD 151	Basic Welding A	2
WLD 152	Basic Welding B	5