

BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE

**Electrical Technology
Associate in Applied Science**

Academic Plan Code - 4603027039

The electrical technology program focuses on preparing students for entry-level electrician positions in industry and the building trades. The study of electrical theory and practical application of that theory provides the foundation of this program. Laboratory and classroom instruction include such topics as blueprint reading, motor controls, and residential wiring. Construction Electricity concentrates on residential electrical construction, and industrial electricity on industrial electrical construction.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of "C" in each technical core and technical elective course.

EET272	Motor Controls II AND	2
EET273	Motor Controls II Lab AND	2
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2
	Technical Electives *	9
	Subtotal Credit Hours	23-25
	Total Credit Hours	66-68

Construction Electrician

Academic Sub-Plan Code - 460302702

EET154	Electrical Construction I AND	2
EET155	Electrical Construction I Lab AND	2
EET252	Electrical Construction II AND	2
EET253	Electrical Construction II Lab	2
	Technical Electives*	10
	Subtotal Credit Hours	17-18
	Total Credit Hours	60-61

Motor Control Electrician

Academic Sub-Plan Code - 460302703

EET272	Motor Controls II AND	2
EET273	Motor Controls II Lab AND	2
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2
FPX100	Fluid Power AND	3
FPX101	Fluid Power Lab OR	2
ET265	Applied Fluid Power	3
	Technical Electives*	7
	Subtotal Credit Hours	17-20
	Total Credit Hours	60-63

General Education Core		
Course	Course Descriptions	Credit Hours
MA109 or MT150	College Algebra and Functions OR	3
MT125	Technical Algebra and Trigonometry OR	3
PH171	Applied Physics OR	4
	Other Science with Consent of Advisor	3
ENG101	Writing	3
	Social Interaction	
	Oral Communications	
	Heritage/Humanities	
	Subtotal Credit Hours	18-19

Technical Core or Support Courses		
ENGT110	Circuits I AND	3
ENGT111	Circuits I Lab 1 AND	1
ENGT113	Circuits I Lab 2	1
ENGT114	Circuits II AND	3
ENGT115	Circuits II Lab 1 AND	1
ENGT117	Circuits II Lab 2	1
EET250	National Electric Code	4
EET264	Rotating Machines	2
EET265	Rotating Machines Lab	2
EET270	Motor Controls I	2
EET271	Motor Controls I Lab	2
	Computer Literacy	3
	Subtotal Credit Hours	25

Options (choose one of the following)

Industrial Electrician

Academic Sub-Plan Code - 460302701

EET154	Electrical Construction I AND	2
EET155	Electrical Construction I Lab AND	2
EET252	Electrical Construction II AND	2
EET253	Electrical Construction II Lab	2

(Courses are listed by category and not necessarily in the order to be taken)

**Electrical Technology
Electrical Technology Diploma**

Academic Plan Code - 4603024049

Course	Course Descriptions	Credit Hours
General Education Core		
MA109 or MT150	College Algebra and Functions OR	3
MT125	Technical Algebra and Trigonometry OR	3
Choose one of the following:		
	Science OR	3
ENG101	Writing I OR	3
	Social Interaction OR	3
	Oral Communications OR	3
	Heritage/Humanities	3
	Subtotal Credit Hours	6
Technical Core or Support Courses		
ENGT110	Circuits I AND	3
ENGT111	Circuits I Lab 1 AND	1
ENGT113	Circuits I Lab 2	1
ENGT114	Circuits II AND	3
ENGT115	Circuits II Lab 1 AND	1

BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE

ENGT117	Circuits II Lab 2	1
EET250	National Electric Code	4
EET264	Rotating Machines	2
EET265	Rotating Machines Lab	2
EET270	Motor Controls I	2
EET271	Motor Controls I Lab	2
	Computer Literacy	3
	Subtotal Credit Hours	25

ENGT 111	Circuits I Lab 1 AND	1
ENGT 113	Circuits I Lab 2	1
ENGT 114	Circuits II AND	3
ENGT115	Circuits II Lab 1 AND	1
ENGT 117	Circuits II Lab 2	1
EET 250	National Electric Code	4
EET150	Transformers AND	2
EET151	Transformers Lab	1
EET 270	Rotating Machines	2
EET 271	Rotating Machines Lab	2
EET 270	Motor Controls I	2
EET 271	Motor Controls I Lab	2
EET 154	Electrical Construction I AND	2
EET 155	Electrical Construction I Lab	2
EET 252	Electrical Construction II AND	2
EET 253	Electrical Construction II Lab	2
	Total Credit Hours	33

Options (choose on of the following)

Industrial Electrician

Academic Sub-Plan Code - 460302401

EET154	Electrical Construction I AND	2
EET155	Electrical Construction I Lab AND	2
EET252	Electrical Construction II AND	2
EET253	Electrical Construction II Lab	2
EET272	Motor Controls II AND	2
EET273	Motor Controls II Lab AND	2
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2
	Technical Electives *	9
	Subtotal Credit Hours	23-25
	Total Credit Hours	54-56

Electrician Helper I

Academic Sub-Plan Code - 4603023039

ENGT 110	Circuits I AND	3
ENGT 111	Circuits I Lab 1 AND	1
ENGT 113	Circuits I Lab 2	1
	Technical Elective	3
	Total Credit Hours	8

Construction Electrician

Academic Sub-Plan Code - 460302402

EET154	Electrical Construction I AND	2
EET155	Electrical Construction I Lab AND	2
EET252	Electrical Construction II AND	2
EET253	Electrical Construction II Lab	2
	Technical Electives *	10
	Subtotal Credit Hours	17-18
	Total Credit Hours	48-49

Residential Electrician I

Academic Sub-Plan Code - 4603023049

ENGT110	Circuits I AND	3
ENGT111	Circuits I Lab 1 AND	1
ENGT113	Circuits I Lab 2	1
ENGT114	Circuits II AND	3
ENGT115	Circuits II Lab 1 AND	1
ENGT 117	Circuits II Lab 2	1
EET 154	Electrical Construction I AND	2
EET 155	Electrical Construction I Lab	2
	Total Credit Hours	14

Motor Control Electrician

Academic Sub-Plan Code - 460302403

EET272	Motor Controls II AND	2
EET273	Motor Controls II Lab AND	2
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2
FPX100	Fluid Power AND	3
FPX101	Fluid Power Lab OR	2
ET265	Applied Fluid Power	3
	Technical Electives *	7
	Subtotal Credit Hours	17-20
	Total Credit Hours	48-51

Electrician Helper II

Academic Sub-Plan Code - 4603023059

ENGT 110	Circuits I AND	3
ENGT 111	Circuits I Lab 1 AND	1
ENGT 113	Circuits I Lab 2	1
ENGT 114	Circuits II AND	3
ENGT 115	Circuits II Lab 1 AND	1
ENGT 117	Circuits II Lab 2	1
	Technical Elective	3
	Total Credit Hours	13

**Electrical Technology
Certificates**

Course	Course Descriptions	Credit Hours
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Electrician Apprentice

Academic Sub-Plan Code - 4603023029

ENGT 110	Circuits I AND	3
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(Courses are listed by category and not necessarily in the order to be taken)

Residential Electrician II

Academic Sub-Plan Code - 4603023069

ENGT 110	Circuits I AND	3
ENGT 111	Circuits I Lab 1 AND	1
ENGT 113	Circuits I Lab 2	1
ENGT 114	Circuits II AND	3
ENGT 115	Circuits II Lab 1 AND	1

BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE

ENGT 117	Circuits II Lab 2	1
EET 154	Electrical Construction I AND	2
EET 155	Electrical Construction I Lab	2
EET 252	Electrical Construction II AND	2
EET 253	Electrical Construction II Lab	2
EET 250	National Electric Code	4
	Total Credit Hours	22

Motor Control Elect I

Academic Sub-Plan Code - 4603023079

ENGT 110	Circuits I AND	3
ENGT 111	Circuits I Lab 1 AND	1
ENGT 113	Circuits I Lab 2	1
ENGT 114	Circuits II AND	3
ENGT 115	Circuits II Lab 1 AND	1
ENGT 117	Circuits II Lab 2	1
EET 250	National Electric Cod	4
EET150	Transformers AND	2
EET151	Transformers Lab	1
EET 270	Rotating Machines	2
EET 271	Rotating Machines Lab	2
EET 270	Motor Controls I	3
EET 271	Motor Controls I Lab	3
CPU 150	Computer Fundamentals OR	3
CIS 100	Introduction to Computers	3
	Total Credit Hour	28

Motor Control Elect II

Academic Sub-Plan Code - 4603023089

ENGT 110	Circuits I AND	3
ENGT 111	Circuits I Lab 1 AND	1
ENGT 113	Circuits I Lab 2	1
ENGT 114	Circuits II AND	3
ENGT 115	Circuits II Lab 1 AND	1
ENGT 117	Circuits II Lab 2	1
EET 250	National Electric Code	4
EET150	Transformers AND	2
EET151	Transformers Lab	1
EET 270	Rotating Machines	2
EET 271	Rotating Machines Lab	2
EET 270	Motor Controls I	2
EET 271	Motor Controls I Lab	2
EET 272	Motor Controls II AND	2
EET 273	Motor Controls II Lab	2
EET 276	Programmable Logic Controllers AND	2
EET 277	Programmable Logic Controllers Lab	2
CPU 150	Computer Fundamentals OR	3
CIS 100	Introduction to Computers	3
	Total Credit Hours	36