BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE

Engineering and Electronics Technology Associate of Applied Science

Academic Plan 1500007019

The Engineering and Electronics Technology program provides course work, competencies and experiences to prepare the students for success in the areas of Engineering technology, electronics, computer maintenance, mechanical, industrial, computer aided design, robotics and automation, communications, instrumentation, medical equipment, and telephony.

Progress in the Engineering and Electronics Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Course Number	Course Title	Credit Hours
	General Education Core	
MA109	College Algebra OR	3
MAT150	College Algebra and Functions OR	3
MAT126	Technical Algebra and Trigonometry	3
PH171	Applied Physics OR	4
	Other Science with Consent of	
	Advisor	(3)
ENG101	Writing I	3
	Social Interaction	3
	Oral Communications	3
	Heritage/Humanities/Foreign Lang.	3
	Subtotal Credit Hours	18-19
	Technical Core or Support Courses	
ELT110	Circuits I	5
ELT114	Circuits II	5
ELT210	Devices I	4
ELT120	Digital I	3
BRX120	Basic Blueprint Reading	3
	Computer Literacy Course	3
ELT289	ELT Capstone Course	1
	Subtotal Credit Hours	24

Options (choose one of the following)

Electronics Specialization

Academic Plan Code - 150000707

ENGT214	Devices II	4
ENGT220	Digital II	3
	Technical Electives	13
	Subtotal Credit Hours	20
	Total Credit Hours	62-63

Industrial Specialization

Academic Plan Code -150000704

ENGT214	Devices II	4
ENGT220	Digital II	3

EET264	Rotating Machinery	2
EET265	Rotating Machinery Lab	2
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2
	Technical Electives	5
	Subtotal Credit Hours	24
	Total Credit Hours	66-67

Robotics & Automation Specialization		
	Academic Plan Code - 150000710	
MTT132	CAD / CAM / CNC	3
FPX100	Fluid Power	3
FPX101	Fluid Power Lab	2
ELT260	Robotics and Industrial Automation	5
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2
	Technical Electives	5
	Subtotal Credit Hours	26
	Total Credit Hours	68

	Computer Maintenance Specialization	
	Academic Plan Code - 150000703	
ELT232	Computer Software Maintenance	3
ELT234	Computer Hardware Maintenance	3
ELT220	Digital II	3
NIS160	Networking Core Technologies OR	3
IT120	Cisco Internetworking I OR	(4)
CIT160	Data Comm. And Networking	(4)
	Technical Electives	9
	Subtotal Credit Hours	21-22
	Total Credit Hours	63-66

Communications Specialization		
	Academic Plan Code - 150000708	
ELT214	Devices II	4
ELT220	Digital II	3
ELT240	Electronics Communication	6
	Technical Electives	9
	Subtotal Credit Hours	22
	Total Credit Hours	64-66

Engineering and Electronics Technology Diplomas

Course Number	Course Title	Credit Hours
	General Education Core	
MA109	College Algebra OR	3
MAT150	College Algebra and Functions OR	3
MAT126	Technical Algebra and Trigonometry	3
	Writing/Accessing Information OR	3
	Oral Communications	3

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	Subtotal Credit Hours	6
,	Technical Core or Support Courses	
ELT110	Circuits I	5
ELT114	Circuits II	5
ELT210	Devices I	4
ELT120	Digital I	3
BRX120	Basic Blueprint Reading	3
	Computer Literacy Course	3
ELT289	ELT Capstone Course	1
COED198	Practicum OR	1-2
COE199	Cooperative Education OR	(1-2)
	Equivalent Course	(1-2)
	Subtotal Credit Hours	25-27

Options (choose one of the following)

Electronics Specialization

Academic Plan Code - 1500004019

ENGT214	Devices II	4
ENGT220	Digital II	3
	Technical Electives	13
	Subtotal Credit Hours	20
	Total Credit Hours	51-53

Industrial Specialization

Academic Plan Code - 1500004079

ENGT214	Devices II	4
ENGT220	Digital II	3
EET264	Rotating Machinery	2
EET265	Rotating Machinery Lab	2
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2
	Technical Electives	5
	Subtotal Credit Hours	24
	Total Credit Hours	55-57

R	obotics & Automation Specialization	
	Academic Plan Code - 1500004039	
MTT132	CAD / CAM / CNC	3
FPX100	Fluid Power	3
FPX101	Fluid Power Lab	2
ELT260	Robotics and Industrial Automation	5
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2
	Technical Electives	5
	Subtotal Credit Hours	26
	Total Credit Hours	55-57

Computer Maintenance Specialization

Academic Plan Code - 1500004049

ELT232	Computer Software Maintenance	3
ELT234	Computer Hardware Maintenance	3

ELT220	Digital II	3
NIS160	Networking Core Technologies OR	3
IT120	Cisco Internetworking I OR	(4)
CIT160	Data Comm. And Networking	(4)
	Technical Electives	9
	Subtotal Credit Hours	21-22
	Total Credit Hours	52-55

Communications Specialization

Academic Plan Code - 1500004029

ELT214	Devices II	4
ELT220	Digital II	3
ELT240	Electronics Communication	6
	Technical Electives	9
	Subtotal Credit Hours	22
	Total Credit Hours	55-57

Engineering and Electronics Technology Certificates

Course Number	Course Title	Credit Hours
	Electronics Tester	
	Academic Plan Code - 1500003089	
ELT110	Circuits I	5
ELT114	Circuits II	5
ELT120	Digital I	3

Electronics Technician

Academic Plan Code - 1500003069

ELT110	Circuits I	5
ELT114	Circuits II	5
ELT210	Devices I	4
ELT214	Devices II	4
ELT120	Digital I	3
ELT220	Digital II	3

Computer Maintenance Technician

Academic Plan Code - 1500003029

ELT110	Circuits I	5
ELT120	Digital I	3
	Computer Literacy Course	3
ELT232	Computer Software Maintenance	3
ELT234	Computer Hardware Maintenance	3

Automation Technician

Academic Plan Code - 1500003019

Academic Flan Code - 1300003019		
ELT110	Circuits I	5
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2
FPX100	Fluid Power AND	3
FPX101	Fluid Power Lab	2

Industrial Technician I

Academic Plan Code - 1500003129

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ELT110	Circuits I	5
ELT114	Circuits II	5
ELT120	Digital I	3
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2

Industrial Technician II

Academic Plan Code - 1500003139

ELT110	Circuits I	5
ELT114	Circuits II	5
ELT210	Devices I	4
ELT214	Devices II	4
ELT120	Digital I	3
ELT220	Digital II	3
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2

Communications Technician

Academic Plan Code - 1500003039

ELT110	Circuits I	5
ELT114	Circuits II	5
ELT210	Devices I	4
ELT214	Devices II	4
ELT120	Digital I	3
ELT240	Electronics Communication	6

Maintenance Technician

Academic Plan Code - 1500003059

ELT110	Circuits I	5
ELT114	Circuits II	5
FPX100	Fluid Power	3
FPX101	Fluid Power Lab	2
BRX120	Basic Blueprint Reading	3
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2

Robotics and Automation Technician

Academic Plan Code - 1500003099

ELT110	Circuits I	5
ELT114	Circuits II	5
ELT210	Devices I	4
ELT120	Digital I	3
FPX100	Fluid Power	3
FPX101	Fluid Power Lab	2
EET270	Electrical Motor Controls I	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers	2
EET277	Programmable Logic Controllers Lab	2
MTT132	CAD / CAM / CNC	3
ELT260	Robotics and Industrial Automation	5