

BLUEGRASS COMMUNITY AND TECHNICAL COLLEGE

**Engineering Technology
Associate of Applied Science**

Academic Plan 1500007019

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

Progression in the Engineering 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 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 I	3
	Social Interaction	3
	Oral Communications	3
	Heritage/Humanities	3
	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
ENGT210	Devices I AND	3
ENGT211	Devices I Lab 1 AND	1
ENGT213	Devices I Lab 2	1
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1
BRX120	Basic Blueprint Reading	3
	Computer Literacy Course	3
ET234	Computer Hardware Maintenance OR	3
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2
	Subtotal Credit Hours	27-29

Options (choose one of the following)

Electronics Specialization
Academic Plan Code - 150000707

ENGT214	Devices II AND	3
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ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
	Technical Electives	16
	Subtotal Credit Hours	24
	Total Credit Hours	69-72

Industrial Specialization
Academic Plan Code -150000704

ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
EET264	Rotating Machinery AND	2
EET265	Rotating Machinery Lab AND	2
EET270	Electrical Motor Controls I AND	2
EET271	Electrical Motor Controls I Lab	2
	Technical Electives	11
	Subtotal Credit Hours	27
	Total Credit Hours	72-75

Computer Maintenance Specialization

Academic Plan Code - 150000703

ET232	Computer Software Maintenance	3
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
NIS160	Networking Core Technologies OR	3
IT120	Cisco Internetworking I	4
	Technical Electives	12
	Subtotal Credit Hours	21-22
	Total Credit Hours	66-70

Communications Specialization

Academic Plan Code - 150000708

ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
ENGT250	Electronics Communication	3
ENGT251	Electronics Communication Lab	3
	Technical Electives	12
	Subtotal Credit Hours	26
	Total Credit Hours	71-74

**Engineering Technology
Diplomas**

Course Number	Course Title	Credit Hours
General Education Core		
MA109 or MT150	College Algebra and Functions OR	3
MT125	Technical Algebra and Trigonometry	3

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	OR	
MA109	College Algebra	3
	Choose Any Approved Gen Ed	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
ENGT117	Circuits II Lab 2	1
ENGT210	Devices I AND	3
ENGT211	Devices I Lab 1 AND	1
ENGT213	Devices I Lab 2	1
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1
BRX120	Basic Blueprint Reading Course	3
	Computer Literacy	3
ET234	Computer Hardware Maintenance OR	3
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2
	Subtotal Credit Hours	27-29

Options (choose one of the following)

Electronics Specialization
Academic Plan Code - 150000707

ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	2
	Technical Electives	16
	Subtotal Credit Hours	24
	Total Credit Hours	69-72

Industrial Specialization
Academic Plan Code - 150000704

ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
EET264	Rotating Machinery AND	2
EET265	Rotating Machinery Lab AND	2
EET270	Electrical Motor Controls I AND	2
EET271	Electrical Motor Controls I Lab	2
	Technical Electives	11
	Subtotal Credit Hours	27
	Total Credit Hours	72-75

Computer Maintenance Specialization
Academic Plan Code - 150000703

ET232	Computer Software Maintenance	3
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ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
NIS160	Networking Core Technologies OR	3
IT120	Cisco Internetworking I	4
	Technical Electives	12
	Subtotal Credit Hours	21-22
	Total Credit Hours	66-70

Communications Specialization
Academic Plan Code - 150000708

ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
ENGT250	Electronics Communication	3
ENGT251	Electronics Communication Lab	3
	Technical Electives	12
	Subtotal Credit Hours	26
	Total Credit Hours	71-74

**Engineering Technology
Certificates**

Course Number	Course Title	Credit Hours
Electronics Tester		
Academic Plan Code - 1500003089		
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

Electronics Mechanic Apprentice
Academic Plan Code - 1500003079

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
ENGT210	Devices I AND	3
ENGT211	Devices I Lab 1 AND	1
ENGT213	Devices I Lab 2	1
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1

Electronics Technician Apprentice
Academic Plan Code - 1500003069

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

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ENGT117	Circuits II Lab 2	1
ENGT210	Devices I AND	3
ENGT211	Devices I Lab 1 AND	1
ENGT213	Devices I Lab 2	1
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1
ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1

Computer Maintenance Technician I
Academic Plan Code - 1500003029

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	
ENGT117	Circuits II Lab 2	1
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1
	Computer Literacy Course	3
ET232	Computer Software Maintenance	3
ET234	Computer Hardware Maintenance OR	3

Automation Technician I

Academic Plan Code - 1500003019

ET244	Electrical Machinery and Controls	4
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2
FPX100	Fluid Power AND	3
FPX101	Fluid Power Lab	2

Industrial Technician I

Academic Plan Code - 1500003129

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
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2

Industrial Technician II

Academic Plan Code - 1500003139

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
ENGT210	Devices I AND	3

ENGT211	Devices I Lab 1 AND	1
ENGT213	Devices I Lab 2	1
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1
ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT220	Digital II AND	2
ENGT221	Digital II Lab	1
EET264	Rotating Machinery AND	2
EET265	Rotating Machinery Lab AND	2
EET270	Electrical Motor Controls I AND	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2

Communications Technician I

Academic Plan Code - 1500003039

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
ENGT210	Devices I AND	3
ENGT211	Devices I Lab 1 AND	1
ENGT213	Devices I Lab 2	1
ENGT214	Devices II AND	3
ENGT215	Devices II Lab 1 AND	1
ENGT217	Devices II Lab 2	1
ENGT120	Digital I AND	2
ENGT121	Digital I Lab	1
ENGT250	Electronics Communication	3
ENGT251	Electronics Communication Lab	3

Maintenance Technician I

Academic Plan Code - 1500003049

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
FPX100	Fluid Power AND	3
FPX101	Fluid Power Lab	2
BRX120	Basic Blueprint Reading	3

Maintenance Technician II

Academic Plan Code - 1500003059

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
FPX100	Fluid Power AND	3

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FPX101	Fluid Power Lab	2
BRX120	Basic Blueprint Reading	3
EET264	Rotating Machinery AND	2
EET265	Rotating Machinery Lab AND	2
EET270	Electrical Motor Controls I AND	2
EET271	Electrical Motor Controls I Lab	2
EET276	Programmable Logic Controllers AND	2
EET277	Programmable Logic Controllers Lab	2