

Electronics Technician

Holland code family: Doers

About the Program

The Electronics Technician four-term certificate program is designed for students seeking entry-level electronics technician positions in manufacturing or service industries. The program emphasizes theory fundamentals, practical troubleshooting, and basic electronics design as well as general studies courses. Technical courses involve extensive lab work using industry standard test equipment and practices.

This program will help students gain skills for entry into one of today's most dynamic and broad-based technical fields. Typical occupations include those of field engineers in business or communications fields, or line/maintenance technicians at manufacturing sites. Electronics training also provides excellent positioning for lateral movement into areas such as technical sales or technical writing.

Program Learning Outcomes

The curriculum in RCC courses is derived from a set of identified learning outcomes that are relevant to the discipline. Program learning outcomes for electronics technician programs are:

- Identify and solve real-world problems through the application of electronics theory and concepts.
- Calibrate, test, and repair analog and digital circuitry using industry standard test equipment.
- Organize, interpret, and use technical information and documentation.
- Communicate effectively across a variety of audiences: technicians, engineers, management and customers.
- Function collaboratively as a member of a team to achieve specified and measurable results.
- Demonstrate flexibility, adaptability, and time management skills commensurate with industry productivity needs.
- Demonstrate the ability to adhere to personal and industry safety standards.
- Demonstrate life-long learning towards professional growth.
- Negotiate and abide by the terms of agreement that define their employment.

Entry Requirements

Students are required to complete the Placement Process to determine skill level and readiness in math, reading, and writing. As part of their training program, students must begin with the courses within their skill level as determined through the Placement Process. In addition, students may also be required to enroll in classes that would increase their employability and success.

Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college policies and the Electronics Technology Department chair's recommendation. In order to ensure that coursework is current, program courses over three years old must be reviewed and approved by the appropriate department chair before being accepted toward core requirements. Official transcripts must be filed with the Enrollment Services Office and the Electronics Technology Department.

Graduation Requirements

Students must complete all courses in this program with a grade of "C" or better to receive their certificates. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned the equivalent of a "C" or better grade.

Prerequisites

Course No.	Course Title	Credits
CS/CIS	Approved 3-4 credit Computer Science or Computer Information Science class, CS120/CIS120 or above, or documented computer proficiency within the past ten years. ¹	0-4
MTH20	Pre-algebra I or designated placement test score	0-4
RD90/WR90	College Reading/Fundamentals of Composition or WR91 Fundamentals of Academic Literacy (WR91 substitutes for both RD90 and WR90) or designated placement test score	0-8
Total Prerequisite Credits		0-16

Required Courses

Course No.	Course Title	Credits
First Term		
EET112	Introduction to Mechatronics or EET129 Introduction to Embedded Systems	3



EET125	Electronics Fundamentals I (DC)	6
MTH63	Applied Algebra I or MTH60 Fundamentals of Algebra I or higher level math	<u>4</u> 13

Second Term

EET126	Electronics Fundamentals II (AC)	6
EET130	Digital Fundamentals I	<u>6</u> 12

Third Term

EET131	Digital Fundamentals II	6
HE112	Emergency First Aid	1
WR115	Introduction to Expository Writing or WR121 English Composition I	3-4
—	Approved program elective(s)	<u>2-3</u> 12-14

Fourth Term

EET140	Solid State Fundamentals	6
PSY101	Psychology of Human Relations or BT101 Human Relations in Organizations	3
—	Approved program elective(s)	<u>3-5</u> 12-14

TOTAL PROGRAM CREDITS

49-53

Approved Program Electives

(one or more courses totaling 5-8 credits required)

Course No.	Course Title	Credits
BT121	Digital Marketing and e-Commerce	4
CIS	Any computer applications course, CIS125 or above	3-4
EET101	Introduction to Electronics	3
EET104	Introduction to Manufacturing Electronics	4
EET106	Electronic Assembly	3
EET112	Introduction to Mechatronics	3
EET113	Exploration of Alternative Energies	3
EET118	Introduction to Renewable Energy Systems	5
EET127	Exploring the Raspberry Pi	3
EET132	Digital Fundamentals III	5
EET180	Cooperative Work Experience/Electronics	4
EET199	Selected Topics in Technology	1-6
EET215	Operational Amplifiers and Linear Integrated Circuits	5
EET220	Solid State Devices	6
EET225	Electronics Troubleshooting	3

EET230	Radio Frequency Communications Fundamentals	6
EET240	Microcontrollers I	5
GS104	Physical Science with lab	4
MET101	Mechanical Drafting	3
MET121	CAD I: Mechanical (Solid Works)	3
MET122	CAD II: Mechanical (SolidWorks)	3
MET160	Materials and Metallurgy	3
MFG101	Introduction to Manufacturing	3
MFG121	Manufacturing Processes I	4
MFG230	Statistics and Quality Control	3
MTH65	Fundamentals of Algebra II or higher level math	4
WLD101	Welding Fundamentals	3
WR121	English Composition I (if not taken as part of core)	4
WR227	Technical Writing	4

¹ Required for graduation.

For more information contact the Electronics Technology Department:

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This advising guide is for advising purposes only. Please see current college catalog for additional information on specific college policies and graduation requirements.

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