

Electronics Technology

Holland code family: Doers

About the Program

The Electronics Technology Associate of Applied Science degree provides students the necessary skills for entry into one of today's most dynamic and broad-based technical fields. The program emphasizes electronic theory fundamentals, troubleshooting and design, and involves both highly technical and general studies courses. Advanced courses include radio frequency and microwave communications, PC hardware, and microcontrollers and interfacing. Typical occupations include those of electronics test technicians at manufacturing sites or field engineers in the communications industry.

The technical courses involve extensive lab work using industry standard test equipment and practices. As a capstone, students design and build an electronics project to demonstrate their proficiencies of program outcomes. The AAS degree can be used for technical block transfers to four-year institutions' basic engineering programs, although continuing students will be advised to take additional transfer courses.

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 by the results of their placement assessment. 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 with 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 RCC Enrollment Services Office.

Graduation Requirements

Students are required to complete all courses in this program with a grade of "C" or better to receive their degrees. 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.

What skills will you learn?

Visit <http://go.roguecc.edu/department/program-learning-outcomes>.

What are the employment opportunities?

Visit <http://www.roguecc.edu/GainfulEmployment>.

Prerequisites

Course No.	Course Title	Credits
CS__	Approved 3-4 credit computer science class, CS120 or above or documented computer proficiency 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**

First Year Required Courses

Course No.	Course Title	Credits
First Term		
EET129	Embedded Systems – Arduino	5
EET125	Electronics Fundamentals I (DC)	6
MTH63	Applied Algebra I or MTH60 Fundamentals of Algebra I or higher level math	4 15
Second Term		
EET126	Electronics Fundamentals II (AC)	6
EET130	Digital Fundamentals I	6
WR115	Introduction to Expository Writing or designated placement test score, or either: SP100 Basic Communication or SP111 Fundamentals of Public Speaking or	

Second Term

EET126	Electronics Fundamentals II (AC)	6
EET130	Digital Fundamentals I	6
WR115	Introduction to Expository Writing or designated placement test score, or either: SP100 Basic Communication or SP111 Fundamentals of Public Speaking or	



SP218 Interpersonal Communication ²

3-4
15-16

Third Term

EET131	Digital Fundamentals II	6
EET140	Solid State Fundamentals	6
CS140	Introduction to Operating Systems	4 16

Fourth Term

LIB127	Introduction to Academic Research	1
HE112	Emergency First Aid	1
EET127	Exploring Raspberry Pi	3
PSY101	Psychology of Human Relations or BT101 Human relations in Organizations	3 4
WR121	English Composition	12

Total First Year Credits

58-59

Second Year Required Courses

Course No.	Course Title	Credits
Fifth Term		
CS227	PC Hardware Fundamentals and Repair	5
EET215	Operational Amplifiers and Linear Integrated Circuits	5
EET220	Solid State Devices	6 16
Sixth Term		
EET225	Electronics Troubleshooting	3
EET230	Radio Frequency Communications Fundamentals	6
EET240	Microcontrollers I	5 14
Seventh Term		
EET205	International Society of Certified Electronics Technicians (ISCET) Certification Preparation	1
EET235	Microwave Applications	5
EET241	Microcontrollers II	5
EET250	Prototype Development and Documentation or EET280 Cooperative Work Experience/Electronics	4 4
—	Approved program elective(s)	<u>0-4</u> 15-19

Total Second Year Credits

45-49

TOTAL PROGRAM CREDITS

103-108

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Approved Program Electives

Course No.	Course Title	Credits
BA101	Introduction to Business	4
BT121	Digital Marketing and e-Commerce	4
CS	Any computer science course, CS125 or above	3-4
EET101	Introduction to Electronics	3
EET104	Fundamentals of Manufacturing Electronics	4
EET106	Electronics Assembly	3
EET112	Introduction to Mechatronics	3
EET113	Exploration of Alternative Energies	3
EET118	Introduction to Renewable Energy Systems (RES)	5
EET132	Digital Fundamentals III	5
EET150	PLC Motor Control	3
EET180	Cooperative Work Experience/Electronics	variable
EET180S/280S	Cooperative Work Experience Seminar/Electronics	1
EET199	Selected Topics in Technology	1-5
GS104	Physical Science with lab	4
MET101	Mechanical Drafting	3
MET121	CAD I: Mechanical (SolidWorks)	3
MET122	CAD II: Mechanical (SolidWorks)	3
MET160	Materials and Metallurgy	3
MFG101	Introduction to Manufacturing	3
MFG121	Manufacturing Processes I	4
MFG220	Research and Development Prototyping	4
MFG230	Statistics and Quality Control	3
MFG241	CNC Programming – Mill	4
MFG242	CAM I: Mastercam	4
MFG243	CAM II: Mastercam	4
MFG244	CNC Programming – Lathe	3
MTH65	Fundamentals of Algebra II or higher level math	4-5
MTH60R	Fundamentals of Algebra I Recitation	1
MTH65R	Fundamentals of Algebra II Recitation	1
MTH111R	College Algebra Recitation	1
MTH112R	Elementary Functions Recitation	1
SP111	Fundamentals of Public Speaking (if not taken as a required course)	4
WR122	English Composition II (if not taken as a required course)	4
WLD101	Welding Fundamentals	3
WR227	Technical Writing	4

¹ Required for graduation. Successful completion of CS120, or otherwise meeting the proficiency requirement within the last 10 years, fulfills this requirement. Contact a computer science advisor to help determine placement.

² If students test out of WR115, they may take WR122 instead of speech upon completion of WR121.

For more information contact the Electronics Technology Department:

Grants Pass or Medford 541-245-7809
 Toll free in Oregon800-411-6508, Ext. 7809
 e-mailelectronics@rogucecc.edu
 Web address www.rogucecc.edu/electronics
 TTY Oregon Telecom Relay Service, 711

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

RCC is an open institution and does not discriminate. For RCC's non-discrimination policy and a full list of regulatory specific contact persons visit the following webpage: www.rogucecc.edu/nondiscrimination.

