

Electronics Technology

Associate of Applied Science Degree

2009-10 Academic Year

Major Code: 150303

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 take a placement test to determine skill level and readiness in math, reading and writing. As part of their training program, students must begin with courses within their skill levels as determined by placement test scores. Students are required to complete any prerequisites on this guide. 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 head'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 head 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 a "C" or better grade. Note: Effective summer term 2009, many general education courses went from three to four credits. The three-credit version of any art, writing, speech, humanities, or social science course will meet the same degree requirements as the new four-credit version. Students must still complete all required courses in this degree and at least 90 applicable credits to receive an associate degree.

Prerequisites

Course No.	Course Title	Credits
—	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 as shown on current indicator chart)	4
RD30	College Reading II (or designated placement test score as shown on current indicator chart)	4
WR30	Fundamentals of Composition II (or designated placement test score as shown on current indicator chart)	4

First Year Required Courses

Course No.	Course Title	Credits
First Term		
EET112	Introduction to Mechatronics	5
EET125	Electronics Fundamentals I (DC) ²	6
MTH60	Fundamentals of Algebra I or	
MTH63	Applied Technical Math or higher level math	4

Course No.	Course Title	Credits
WR115	Introduction to Expository Writing (or designated placement test score as shown on current indicator chart) and either	
SP100	Basic Communication or	
SP111	Fundamentals of Public Speaking or	
SP218	Interpersonal Communication ³	<u>3-4</u>
		18-19

Second Term

CS140	Introduction to Operating Systems	4
EET126	Electronics Fundamentals II (AC) ⁴	6
EET130	Digital Fundamentals I	5
MTH65	Fundamentals of Algebra II or higher level math	<u>4</u>
		19

Third Term

EET131	Digital Fundamentals II	5
EET140	Solid State Fundamentals	6
LIB127	Introduction to Library Research Methods	1
WR121	English Composition I	<u>4</u>
		16

TOTAL FIRST YEAR CREDITS 53-54

Second Year Required Courses

Course No.	Course Title	Credits
Fourth Term		
CS227	PC Hardware Fundamentals	5
EET215	Operational Amplifiers and Linear Integrated Circuits	5
EET220	Solid State Devices	6
PSY101	Psychology of Human Relations or	
BT101	Human Relations in Organizations	<u>3</u>
		19

Fifth Term

EET225	Electronics Troubleshooting	3
EET230	Radio Frequency Communications Fundamentals	6
EET240	Computer Software/Hardware Architecture I	5
9.167	Emergency First Aid or approved health/first aid elective (see RCC catalog for approved list of electives)	<u>1-3</u>
		15-17

Sixth Term

EET205	International Society of Certified Electronics Technicians (ISCET) Certification/Preparation	1
EET235	Microwave Applications	5
EET241	Computer Software/Hardware Architecture II	5
EET250	Prototype Development and Documentation or	
EET280	Cooperative Work Experience/Engineering	<u>4</u>
		15

TOTAL SECOND YEAR CREDITS 49-51

TOTAL PROGRAM CREDITS 102-105

Approved Program Electives

Course No.	Course Title	Credits
BA101	Introduction to Business	3
BT121	Introduction to e-Commerce	3
CHEM104	Introductory Chemistry I w/Lab and Recitation	5
—	Any computer science course CS125 or above	3-4
EET101	Introduction to Electronics	3
EET102	Industrial Electronics for Manufacturing	5
EET103	Electronics Drafting	3
EET105	Electromechanical Systems	3
EET106	Electronics Assembly	3
EET118	Introduction to Renewable Energy Systems	3
EET180S	Cooperative Work Experience Seminar/Engineering	1
EET199	Selected Topics in Technology	1-6
EET265	Optoelectronics: Fiber Optics and Lasers	4
EET280S	Cooperative Work Experience Seminar/Engineering	1
GS104	Physical Science w/Lab	4
GS105	Physical Science: Chemistry w/Lab	4
MET101	Mechanical Drafting	3
MET121	CAD I: Mechanical (SolidWorks)	3
MET122	CAD II: Mechanical (SolidWorks)	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
MTH95	Intermediate Algebra	4
MTH111	College Algebra	4
MTH112	Elementary Functions	4
SP111	Fundamentals of Public Speaking (if not taken as a required course)	4
WR122	English Composition II	4
WR227	Technical Writing	4

¹ Required for graduation. Successful completion of CS101 or otherwise meeting the proficiency requirement within the last 10 years fulfills this requirement.

² Can also be taken in a modularized format as EET125A and EET125B.

³ If students test out of WR115, they may take WR122 instead of speech upon completion of WR121.

⁴ Can also be taken in a modularized format as EET126A and EET126B.

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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