

# Electrical Technology – Electronics

## Degree Type

Associate in Applied Science

## Type

Career

Division of STEAM

Associate Dean: Bradley Cole

The Electrical Technology program prepares students to enter the rapidly expanding field of electronics. Their studies qualify them to work in the exciting fields of electronic design, electrical power generation, communications, systems control, and technical sales and service. This program stresses electronic analysis and design using digital and analog electronics, instrumentation, and programming. Laboratory experience is a part of each of the courses in this program.

Graduates will be able to:

- Design, construct, and analyze electronic circuits;
- Demonstrate the use of electrical and mechanical equipment and instrumentation;
- Demonstrate proficiency in the use of computer software for drawing, simulation, and programming;
- Produce proper documentation of experiments, projects, and programs.

For students who decide to go on for further education after the A.A.S. degree, many four-year colleges now offer bachelor degree programs in technology and technical education specifically designed for graduates in electrical technology. High school or equivalent preparation required: Two years of mathematics including algebra and either geometry or intermediate algebra. Students who don't have this preparation will be able to get it here, but it may take longer to complete the program.

Students must have a good working knowledge of WORD (word processing) and EXCEL (spreadsheets and charts) for science and technology courses. If not already required in their program, students who lack these skills should still take TECH 1110 and TECH 1120 to make up the deficiency. Challenge exams for these courses are also available.

## Program Requirements

Item #	Title	Credits
ENGL 1110	College Communication	3.0
ENGL 1020	College Composition II	3.0
MATH 1230	Elements of Applied Mathematics I	3.0
MATH 1240	Elements of Applied Math II	3.0
	Diversity, Equity, Inclusion, Social Justice (DEI/SJ) Course	3
PHYS 1010	Elementary Physics	0.0-4
	Social Sciences or Humanities elective	3
ELEC 1010	Electricity	0.0-4
ELEC 1500	Solid State Electronics	0.0-4
ELEC 1510	Digital Electronics	0.0-4
ELEC 2000	Electronic Construction	1.0
ELEC 2010	Linear Electronics	0.0-4
ELEC 2020	Industrial Electronics	0.0-4
ELEC 2030	Microprocessors	0.0-4
ELEC 2070	Industrial Data Acquisition	0.0-4
MECH 1050	Engineering Graphics I	0.0-3
TECH 1030	Manufacturing Methods	3.0
TECH 1080	Manufacturing Methods Lab	1.0
	Technical Electives	6

## Course Sequencing

## First Semester

Intended as a guide for academic planning. It need not be followed exactly or completed in four semesters.

Item #	Title	Credits
ENGL 1110	College Communication	3.0
MATH 1230	Elements of Applied Mathematics I	3.0
TECH 1030	Manufacturing Methods	3.0
MECH 1050	Engineering Graphics I	0.0-3
ELEC 1010	Electricity	0.0-4
TECH 1080	Manufacturing Methods Lab	1.0

## Second Semester

Item #	Title	Credits
ENGL 1020	College Composition II	3.0
MATH 1240	Elements of Applied Math II	3.0
ELEC 1510	Digital Electronics	0.0-4
PHYS 1010	Elementary Physics	0.0-4
ELEC 1500	Solid State Electronics	0.0-4

## Third Semester

Item #	Title	Credits
ELEC 2010	Linear Electronics	0.0-4
ELEC 2000	Electronic Construction	1.0
ELEC 2030	Microprocessors	0.0-4
	Diversity, Equity, Inclusion, Social Justice (DEI/SJ) Course	3
	Technical Electives	3

## Fourth Semester

Item #	Title	Credits
	Social Sciences or Humanities Elective	3
ELEC 2020	Industrial Electronics	0.0-4
	Technical Electives	3
ELEC 2070	Industrial Data Acquisition	0.0-4

## Footnotes

\*Based on placement, students might be required to take developmental and/or prerequisite classes before taking the required English and Math courses.

Technical Electives: Students must complete any two technical elective courses from the following choices (both may be taken concurrently if the class schedule allows): CRST1010, CSNT1200, MECH2050, GLSS2010, GLSS2020, or any course with an ELEC prefix.

\*Diversity, Equity, Inclusion, Social Justice (DEI/SJ) Course: See General Education Requirements for courses that meet this requirement.

\*ENGL 111Q: Students may take ENGL 1010 and SPCH 1080 in place of ENGL 1110.