



Electrical Technology-Electronics

Associate in Applied Science Degree, Career program

Division of Math, Physics, Technology & Engineering Science, Associate Dean: Bradley Cole
 Department Chair: John Longwell

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, computer repair, communications, systems control, and technical sales and service. This program stresses electronic design using integrated circuits. Laboratory experience is a part of each of the courses in this program.

Graduates will be able to function as laboratory, production, and field technicians using spreadsheets, word processors, and presentation software; use common circuit analysis equipment and instrumentation; design, construct, and analyze circuits using discrete semiconductor, solid state devices and operational amplifiers; interface software programs and various hardware devices; program/troubleshoot PLC systems, apply different transducers/sensors, and properly wire different motor types and circuits; demonstrate basic programming skills; use techniques of drafting and the preparation of electronic/electrical drawings; recognize and use project management techniques.

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.

For program assistance, see an advisor.

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.

Program Requirements

English (ENGL 1010 and 1020 or 1030. By placement)*	6	Technical Concentration (ELEC 1010, 1500, 1510, 2000, 2010, 2020, 2030, 2050, 2060, 2070; MECH 1050; TECH 1030, 1080)	42
Mathematics (MATH 1230-1240 or higher)*	6	Technical elective (see list below)	2
Social Sciences electives	6	Wellness	2
Physics (PHYS 1010)	4	Total hours	68

*Based on placement, students may be required to take ENGL 0950 and/or ENGL 0990 before taking ENGL 1010, and MATH 0960 before taking a math credit course.

Students should take the Orientation to Technology (TECH 1050) course [offered before the semester begins] where their computer skills will be assessed. It may be possible to get credit for TECH 1110, 1120, 1130 via this assessment. If students do not pass sections of the computer assessment, they will be required to take TECH 1110, 1120 or 1130 to make up the deficiency.

<i>Sample Sequence: intended as a guide for academic planning. It need not be followed exactly or completed in four semesters.</i>	
<i>First Semester</i>	<i>Second Semester</i>
English	English
Mathematics (MATH 1230 or higher)	Mathematics (MATH 1240 or higher)
Manufacturing Methods (TECH 1030)	Digital Electronics (ELEC 1510)
Engineering Graphics (MECH 1050)	Elementary Physics (PHYS 1010)
Electricity (ELEC 1010)	Solid State Electronics (ELEC 1500)
Manufacturing Methods Lab (TECH 1080)	Wellness (Activity Component)
Wellness (Awareness/Instructional Component)	
<i>Third Semester</i>	<i>Fourth Semester</i>
Social Sciences elective	Social Sciences elective
Linear Electronics (ELEC 2010)	Electronic Communications (ELEC 2060)
Electronic Construction (ELEC 2000)	Senior Project (ELEC 2050)
Industrial Electronics (ELEC 2020)	Industrial Data Acquisition (ELEC 2070)
Microprocessors (ELEC 2030)	Technical elective (select from list below)
Wellness (Activity Component)	

Technical electives: Select from CSCS 2210; CSST 1600; ELEC 2080; ENGL 1501-1502; ENGR 1050; MATH 1310, 1510-1520, 1610-1620; PHYS 1580, 2090, 2100; and any CADD, CRST, MACH, MECH, or MFGT courses.