

ELECTRICITY/ELECTRONICS/TECHNICAL CALCULATIONS 33

DIVISION	Applied Technology & Transportation
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The Electricity/Electronics curriculum is designed to provide entry-level job training in this broad and expanding field. These classes lead to trainee positions in maintenance, installation, field service, networking, and apprenticeship in the area of specialization. Students who seek a Certificate or an Associate of Science Degree in the fields of: 1) Electronics Technology, 2) Communication Engineering Technology, 3) Computer Engineering Technology, 4) Electric Power Technology, or 5) Avionics Technology, will complete a series of Electronics Technology courses common to electricity, communications, and computers and then complete the appropriate area of specialization. All classes must be completed with a grade of C or better.

Students planning to transfer to a four-year institution and major in electronics should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information
- Employ vocabulary of the subject studied
- Find and interpret information

ELECTRICITY/ELECTRONICS ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in one of the Electricity/Electronics majors, students must complete all the requirements for the appropriate certificate with a grade of C or better plus the general breadth requirements for the Associate Degree.

ELECTRICITY/ELECTRONICS CERTIFICATES

These certificates are designed to provide students with the fundamentals of electronics technology by offering courses common to electricity, communications and computers. This preparation can be for transfer to the university or for further study in areas of communication, computers, electricity, and aircraft electronics. It can also prepare students for entry-level positions in electronics, maintenance, installation, field service, networking, and apprenticeship in the field of electronics technology. Students should have normal color vision, hand/eye coordination and the ability to lift over 50 pounds.

ELECTRONICS TECHNOLOGY

(Core Courses required for all specializations)

REQUIRED COURSES		UNITS
TECALC 087	Technical Calculations	4
ELECTR 110	Direct Current Circuit Analysis	3
ELECTR 111	Direct Current Circuit Laboratory	1

ELECTR 115	Alternating Current Circuit Analysis	3
ELECTR 116	Alternating Current Circuit Laboratory	1
ELECTR 155	Electronic Drawing and Assembly	3
ELECTR 230	Semiconductor Devices	3
ELECTR 235	Solid State Circuit Analysis	4
ELECTR 265	Digital Logic Design	4
ELECTR 266	Microprocessor Technology	4
ELECTR 270	Linear Integrated Circuit Analysis	4
TOTAL UNITS		34

COMMUNICATIONS ENGINEERING TECHNOLOGY

This certificate is designed to provide students with the fundamentals of electronics technology as it applies to communications engineering. The curriculum prepares students for entry-level positions in electronics communications maintenance, installation, field service, networking, and apprenticeship in the field of communications engineering technology.

Complete the required courses for Electronics Technology plus

REQUIRED COURSES		UNITS
ELECTR 220B	F.C.C. Rules and Regulations	3
ELECTR 250B	Radio Transmitters, Receivers, and Antennas	4
ELECTR 255B	Telephone Networking	4
TOTAL UNITS		45

COMPUTER ENGINEERING TECHNOLOGY

These certificates are designed to provide students with the fundamentals of electronics technology as it applies to computer engineering. The curriculum prepare students for entry-level positions in computer maintenance, installation, field service, networking, and apprenticeship in the field of computer engineering technology.

Complete the required courses for Electronics Technology plus

REQUIRED COURSES		UNITS
ELEC 217B	Industrial Electricity	4
ELECTR 158	Microcomputer Operation	2
ELECTR 280B	Computer Operations and Maintenance	4
TOTAL UNITS		44

ELECTRIC POWER TECHNOLOGY

These certificates are designed to provide students with the fundamentals of electronics technology as it applies to industrial electricity. The curriculum prepare students for entry-level positions in electrical maintenance, installation, field service, networking, and apprenticeship in the field of electronic power technology.

Complete the required courses for Electronics Technology plus

REQUIRED COURSES		UNITS
ELEC 216B	Introduction to Industrial Electricity	4
ELEC 217B	Industrial Electricity	4
ELEC 218B	Controlling Industrial Electricity	4
TOTAL UNITS		46

