ELECTRONICS AND COMPUTER ENGINEERING TECHNOLOGY (CERTIFICATE T0906)

Technology and Health Division
Certificate T0906
The Electronics and Computer Engineering Technology (ECET) degree program prepares individuals either for initial employment or for enhancement of existing skills in the electronics field. In addition to exposing students to core topics such as components and circuits, the program includes coursework in advanced areas including microcontrollers and interfacing, communications, and industrial electronic controls. Nearly all laboratories have equipment to provide students with quality, hands-on learning experiences.

Students completing ECET degree and certificate programs possess ample skills to make them versatile employees. Typical technician-level job classifications include field service technician, fields engineer, computer service technician, customer service technician, communications technician, maintenance technician and electronics technician.

Required Courses

Course Prefix	Course Name	Units
ELEC 11	Technical Applications in Microcomputers	3
ELEC 12	Computer Simulation and Troubleshooting	2
ELEC 50A	Electronic Circuits - Direct Current (DC)	4
ELEC 50B	Electronic Circuits (AC)	4
ELEC 51	Semiconductor Devices and Circuits	4
ELEC 53	Communications Systems	4
ELEC 54A	Industrial Electronics	4
ELEC 54B	Industrial Electronic Systems	3
ELEC 55	Microwave Communications	4
ELEC 56	Digital Electronics	4
ELEC 61	Electronic Assembly and Fabrication	3
ELEC 74	Microcontroller Systems	4
TECH 60	Customer Relations for the Technician	2
Total Units		**45**

Electronics and Computer Technology Website (http://www.mtsac.edu/electronics/)

Program Learning Outcomes

Upon successful completion of this program, a student will be able to:

- Apply knowledge of electronic principles to the areas of communications, industrial electronics, and microcontrollers.
- Demonstrate proper use of electronic test equipment and associate measurement results with circuit behaviors in the laboratory.
- Quantitatively determine unknown electrical parameters from given or measured values and use these results to assess or troubleshoot faults in circuit and system operation.
- Communicate, both verbally and in writing, knowledge of electrical concepts and their application to the observed behaviors of circuits and systems.
- In advanced courses, connect concepts learned in introductory courses to more general principles applicable in the employment context.

Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html) for this program.