

ELECTRONICS ENGINEERING TECHNOLOGY PROGRAMS

OVERVIEW OF THE PROGRAM:

The Electronics Engineering Technology (EET) program at Fairmont State University is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, <http://www.abet.org>

The EET program prepares graduates for employment in a wide variety of industries producing and/or using electrical and electronic equipment. Our instructional strategy is designed to produce graduates with knowledge, applied skills, and experiences in engineering, but also with problem solving, critical thinking, teamwork, and communication skills required by modern industries.

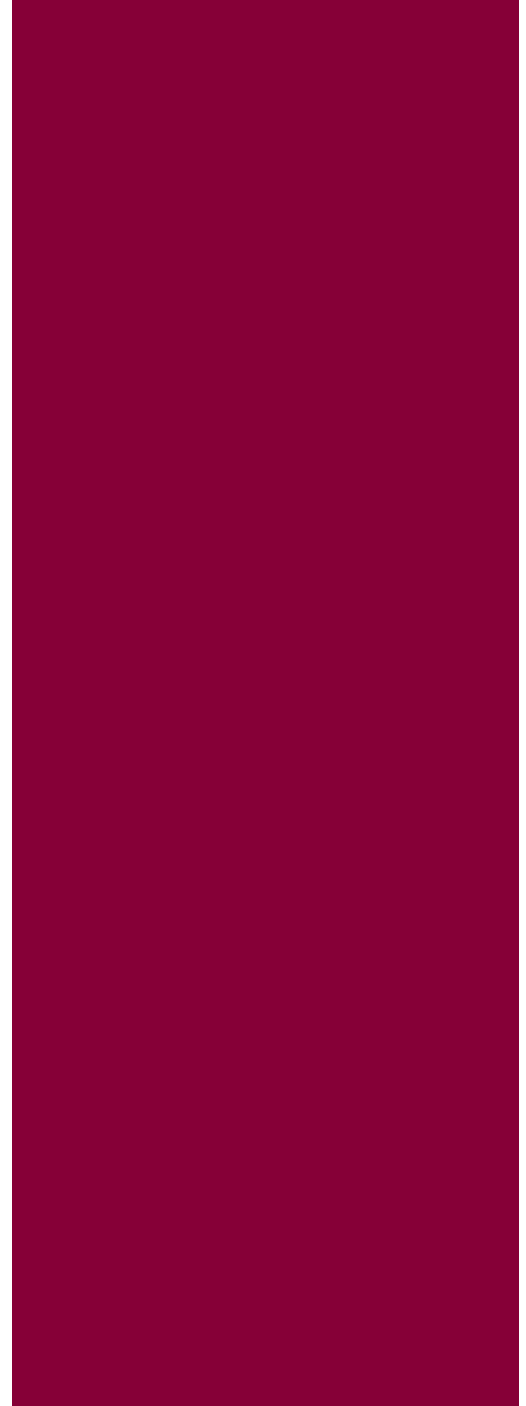
In two years an Associate's EET degree can be earned opening opportunities for a new career. The Associate's EET program provides a thorough understanding of Digital Electronics, Circuit Analysis, Electronic Devices, Machinery Controls, Programmable Logic Controllers, and Industrial Electronics. Coursework involves theoretical analysis, software simulation and hands-on applications.

The Bachelor's EET degree program builds on the knowledge and experiences of the Associates program. The student will receive comprehensive training in communication systems, microcontrollers, advanced linear electronics, advanced automation systems, data acquisition and control systems. During the student's senior year a capstone project applies learned principles to develop an experimental technical application.

THEORY AND APPLICATION

The principles learned at Fairmont State can be applied in a wide range of careers including biomedical, energy, transportation, communications, entertainment, defense, and manufacturing.

EET graduates make an impact by developing technology to improve lives. The EET graduates will design electronic components, software, products, or systems for commercial, industrial, medical, military, or scientific applications



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**FAIRMONT STATE
UNIVERSITY™**

College of Science & Technology

ELECTRONICS ENGINEERING TECHNOLOGY PROGRAM

BACHELOR OF SCIENCE IN ELECTRONICS ENGINEERING TECHNOLOGY

MODEL SCHEDULE

FRESHMAN FIRST SEMESTER

ENGL 1101 ENGLISH I (Core 2)	3
MATH 1510 APPLIED TECHNICAL MATH I OR MATH 1530	3
ELEC 1100 CIRCUIT ANALYSIS I	3
ELEC 1120 AC/DC ELECTRONICS ANALYSIS	3
SOAR 1100 FRESHMAN SEMINAR	1
TOTAL	13

FRESHMAN SECOND SEMESTER

ENGL 1103 TECH REPORT WRITING	3
MATH 1520 APPLIED TECHNICAL MATH II OR MATH 1540	3
COMP 1110 INTRODUCTION TO PROGRAMMING OR	3
COMP 1120 PRINCIPLES OF PROGRAMMING I	3
ELEC 2210 CIRCUIT ANALYSIS II	3
ELEC 2225 ELECTRONIC DEVICES	3
TOTAL	15

SOPHOMORE FIRST SEMESTER

PHYS 1101 INTRODUCTION TO PHYSICS I	4
TECH 2290 ENGR ANALYSIS I OR MATH 2501 CALC I	4
CORE CURRICULUM	3
ELEC 2230 DIGITAL ELECTRONICS	3
ELEC 2250 AC/DC MACHINERY AND CONTROLS	3
TOTAL	17

SOPHOMORE SECOND SEMESTER

PHYS 1102 INTRODUCTION TO PHYSICS II	4
TECH 3300 ENGR ANALYSIS II OR MATH 2502 CALC II	4
COMM 2202 INTRO TO COMM IN WORLD OF WORK	3
ELEC 2240 INDUSTRIAL ELECTRONICS	3
ELEC 2280 PROGRAMMABLE CONTROLLERS	3
TOTAL	17

JUNIOR FIRST SEMESTER

CORE CURRICULUM	3
CORE CURRICULUM	3
TECHNICAL ELECTIVE	3
ELEC 2270 MICROCOMPUTERS	3
ELEC 3360 COMMUNICATION SYSTEMS	3
TOTAL	15

JUNIOR SECOND SEMESTER

CORE CURRICULUM	3
MANF 2205 ENGINEERING ECONOMY	3
CHEM 1101 GENERAL CHEMISTRY	4
ELEC 3300 ADVANCED LINEAR ELECTRONICS	3
ELEC 3310 ADVANCED MICROCOMPUTER SYSTEMS	3
TOTAL	16

SENIOR FIRST SEMESTER

CORE CURRICULUM	3
TECHNICAL ELECTIVE	3
ELEC 4410 DATA ACQUISITION AND CONTROL SYSTEMS	4
ELEC 4420 ADVANCED AUTOMATION CONTROLLER SYSTEMS	3
TOTAL	13

SENIOR SECOND SEMESTER

CORE CURRICULUM	3
CORE CURRICULUM	3
TECHNICAL ELECTIVE	3
ELEC 4401 SENIOR ELECTRONICS PROJECT I	4
ELEC 4402 SENIOR ELECTRONICS PROJECT II (WRITING INTENSIVE)	3
TOTAL	16

EMPLOYMENT OPPORTUNITIES

According to the United State Department of Labor, Electronic and Electrical Engineers median annual wage for year 2019 was \$105,570. Electrical and electronic engineers are mostly employed by industries designing, building equipment, research and development or engineering service firms. The industries that employed the most electronics engineers in 2014 were telecommunications, Federal government, engineering services, semiconductor, navigational, measuring, electro-medical, and control instruments manufacturing

The rapid pace of technological advancements will likely drive demand for electrical and electronics engineers in research and development, an area in which engineering expertise will be needed to develop distribution systems related to new technologies. These engineers will play key roles in new developments having to do with innovations in energy, transportation and communications technologies.



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