Degree Benefits
Electrical engineering technology is a blend of hands-on and minds-on learning activities focused on solving problems using concepts from science, mathematics, computer science, engineering and technology. Emphasis is placed on applications of current technology to meet the needs of industrial and commercial enterprises employing electrical and electronic systems. The electrical engineering technology program provides students with the knowledge required to design, develop, modify, maintain and repair sophisticated electrical and electronic systems. Computer/microprocessor interfacing and programming are used extensively to demonstrate flexibility and simplicity in instrumentation design, communication, digital signal processing and controls. Classical linear systems are presented to provide the student with an understanding of linear active filters, transient analysis, transducer interfacing, linearization, instrumentation, communications and systems control. Students are required to independently design microprocessor / microcontroller systems that can be interfaced to the analog world.

Educational Program Objectives
The general goal of the electrical engineering technology program is to provide students with a broad understanding of fundamental engineering knowledge and technical skills, as well as in-depth knowledge in the areas of computer science, electrical engineering technology, digital electronics, mathematics and physical sciences. The objectives of the EET program are to produce graduates who can:

1. Function effectively individually and in team-oriented, open-ended activities, using critical thinking to assess and evaluate complex technical and non-technical problems in an industrial environment.
2. Communicate effectively in oral, written, visual and graphical modes in interpersonal and group situations at a level of effectiveness expected by industry employers.
3. Remain technically current and adapt to rapidly changing technologies through further formal or informal education.
4. Identify and understand professional ethical situations in business, industry and society.
5. Function effectively in team-oriented open-ended activities in a corporate environment.
6. Blend theoretical and practical knowledge and skills to solve technical problems.
7. Apply microprocessor-based technology to solve technical problems.

Accreditation
The Bachelor of Science in EET program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, http://www.abet.org. All graduates from the B.S. EET program will receive accredited degrees. Seniors and graduates of the programs are eligible to sit for a pre-licensing Fundamentals of Engineering (FE) exam.

Employment Opportunities
Employment opportunities for electrical engineering technology graduates are diverse and plentiful. Graduates find challenging positions as engineers, electronic designers, software developers and programmers, network technicians, instrumentation designers, systems technicians, administrators, field representatives and sales representatives. Other graduates pursue advanced degrees in master’s and doctoral programs. Graduates of the program have been experiencing an excellent job market during the past three years, and the demand is expected to increase.

University Resources
The engineering technology labs are located in two buildings: Helsel Hall and Eberly Science and Technology Center. Helsel Hall has a studio laboratory that includes lecture and laboratory facilities used exclusively for the first two years of the engineering technology programs. It is equipped with high quality instrumentation packages appropriate for the first two years of the programs. Eberly has a number of laboratories with a more advanced set of instrumentation devices and a dedicated senior projects lab. Laboratories feature lab benches housing networked computers with Internet access and laboratory printing support.

Admission
Admission to the program is open to entering freshmen, transfer students or two-year associate degree graduates of equivalent programs. Students should have a strong background in electricity/electronics and mathematics and an interest in engineering and technology. Students with an educational background in a field related to electrical engineering technology who apply for admission to the program will be evaluated on an individual basis.

Internships
Students are encouraged to complete an internship as part of their degree requirements. Students work in an organization related to their employment goals where they receive practical experiences in applying what they have learned through course work. Internship credits may be applied to the degree as program electives using course EET 495, Electrical Engineering Technology Internship.

Curriculum
The following schedule of courses provides a recommended framework for completing this program of study in four years. To ensure that they are making satisfactory academic progress, students should consult with their faculty adviser, ensure that they complete necessary prerequisites and required courses in sequence, and complete approximately 15 credits each semester.
## Freshman Year
**First Semester** .........................................................14 credits.
- GET 130 Intro to Engineering Technology ..................3 crs.
- CSC 120 Problem Solving & Program Constructs ..........3 crs.
- EET 110 Electric Circuits I ...........................................4 crs.
- ENG 101 English Composition I .................................3 crs.
- UNI 100 First-Year Seminar .......................................1 crs.

**Second Semester** .....................................................16 credits
- CSC 124 Computer Programming I ..............................3 crs.
- EET 160 Electric Circuits II .........................................4 crs.
- ENG 217 Scientific & Technical Writing .....................3 crs.
- MAT 199 Pre-Calculus ..................................................3 crs.
- General Education ....................................................3 crs.

## Sophomore Year
**Third Semester** ......................................................14 credits
- CET 235 Digital Electronics Design ............................4 crs.
- EET 215 Intro to Instrumentation ...............................3 crs.
- EET 325 Intro to Electric Power .................................4 crs.
- MAT 281 Calculus I ....................................................3 crs.

**Fourth Semester** ....................................................15 credits
- CET 270 Intro to Microprocessor Design ....................4 crs.
- EET 365 Linear Devices .............................................4 crs.
- MAT 282 Calculus II ....................................................3 crs.
- PHY 101 College Physics I .........................................4 crs.

**Junior Year**
**Fifth Semester** ....................................................15 credits
- CET 335 Microprocessor Interfacing ............................4 crs.
- EET 310 Methods in Engineering Analysis ..................3 crs.
- EET 320 Network Analysis ........................................4 crs.
- PHY 202 College Physics II .......................................4 crs.

**Sixth Semester** .....................................................15 credits
- CET 360 Microprocessor Engineering ..........................4 crs.
- EET 370 Instrumentation Design I ..............................4 crs.
- EET Elective ..............................................................4 crs.
- General Education ....................................................3 crs.

**Senior Year**
**Seventh Semester** ................................................16 credits
- CHE 101 General Chemistry .......................................4 crs.
- EET 400 Senior Project Proposal ...............................1 cr.
- EET 410 Automatic Control Systems .........................4 crs.
- EET Elective ..............................................................4 crs.
- General Education ....................................................3 crs.

**Eighth Semester** ...................................................15 credits
- ECO 100 Intro to Economics .....................................3 crs.
- EET 450 Senior Project .............................................3 crs.
- Technical Elective .....................................................3 crs.
- General Education ....................................................6 crs.

**Note**
The policies and procedures described here may be reviewed and revised as the need arises. This fact sheet should be used as an information guide.

**Program Contact Information**
Contact the Department of Applied Engineering and Technology by phone at 724-938-4085.

**Department Website**
www.calu.edu/