

# Electronic Engineering Technology

## Associate of Applied Science Degree (286001AAS)

Accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>

The following information has official approval of The University of Akron's College of Applied Science and Technology but is intended only as a guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, and prerequisites, among others. The transfer process is completed through an appointment with your Academic Advisor.

*Italicized* courses fulfill General Education requirements. If a course is not specified, refer to the General Education webpage at <http://www.uakron.edu/cast/gened>. The College of Applied Science and Technology recommends that students take the General Education courses listed in this curriculum guide. Transfer students should consult their Advisor to identify courses that are equivalent.

Year 1 Fall	Prerequisite
2020:121 <i>English (3)</i>	Placement by Advisor
2030:153 <i>Technical Mathematics III (2)</i>	2030:152 with grade of C- or better or placement by Advisor
2420:263 <i>Professional Communications and Presentations (3)</i>	Prerequisite or corequisite: 2020:121 or 3300:111
2860:120 Circuit Fundamentals (4) (Sch. Lab) (Note a)	2030:152, 2030:153, 2860:121 co-requisites
2860:121 Introduction to Electronics and Computers (2) (Sch. Lab) (Note a)	2030:151 prerequisite, 2860:120 co-requisites
<b>Total Credits = 14</b>	

Year 1 Spring	Prerequisite
2030:154 Technical Mathematics IV (3)	2030:153 with grade of C- or better or placement by Advisor
2820:160 <i>Technical Physics: Mechanics (4) (Sch. Lab)</i>	2030:154 co-requisite
2860:122 AC Circuits (3) (Sch. Lab) (Note b)	2860:120 prerequisite, 2030:154 co-requisite
2860:123 Electronic Devices (4) (Sch. Lab) (Note b)	2860:120 prerequisite
<b>Total Credits = 14</b>	

Year 2 Fall	Prerequisite
2030:255 Technical Calculus I (3)	2030:154 with grade of C- or better or appropriate placement by Advisor
2040:240 <i>Human Relations (3)</i>	
2860:225 Applications of Electronic Devices (4) (Sch. Lab) (Note a)	2860:123, 2030:154
2860:237 Digital Circuits (4) (Sch. Lab) (Note a)	2860:123
2860:242 Machinery and Controls (3) (Sch. Lab) (Note a)	2860:120 & 2860:121 or 2860:370 (previously 270)
<b>Total Credits = 17</b>	

Year 2 Spring	Prerequisite
2040:243 <i>Contemporary Global Issues (3)</i>	
2820:164 <i>Technical Physics: Heat &amp; Light (2) (Sch. Lab)</i>	2820:160
2860:238 Microprocessor Applications (4) (Sch. Lab) (Note b) -OR- 2860:251 Electronic Communications (4) (Sch. Lab) (Note b)	2860:237
2860:260 Electronic Project (2) (Sch. Lab) (Note b)	Final semester and 2940:210 or permission
2040:244 <i>Death and Dying (3)</i> -OR- 2040:254 <i>Black Experience 1619-1877 (2)</i> -OR- 2040:256 <i>Diversity in American Society (3)</i> -OR- 2040:257 <i>Black Experience 1877-1954 (2)</i> -OR- 2040:258 <i>Black Experience 1954-Present (2)</i>	2020:121 or 3300:112 2020:121, or 3300:112 or equivalent 2020:121 or 3300:112 2020:121 or 3300:112
Technical Elective (3) (Note c)	See Advisor
<b>Total Credits = 16-17</b>	

**Total Credits for Degree = 61 minimum**

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your REQUIRED General Education English, Mathematics, and Communications (Speech) requirements.**

**You must have a minimum cumulative GPA of a 2.0 to graduate with this degree.**

#### Notes:

- Traditionally Fall course offering only (See Program Contact)
- Traditionally Spring course offering only (See Program Contact)
- Technical Electives:** Availability dependent on enrollment demands and classroom availability. Technical Electives are defined as courses outside of the Electronic Engineering Technology Program that supports a student's career interest. The following list shows approved technical electives. Some courses listed may involve prerequisites. Any course taken that is not on the following list must be approved by the Program Director in writing in order to be considered a technical elective.

#### Choose a minimum of three (3) credit hours from the courses listed below:

2870:332 Management of Technology Based Operations 3 (3)	
2880:110 Manufacturing Processes (3)	Prerequisite: 2880:100 or permission
2920:101 Introduction to Mechanical Design (3)	Prerequisite: 2880:100 or permission
2920:121 Technical Drawing I (3)	
2920:310 Economics of Technology (3)	Prerequisite: 64 credits or permission
2880:140 Computer Aided Drawing (3)	
2880:230 3-D Modeling and Design (3)	2940:210
2980:101 Basic Surveying (3)	Corequisite: 2030:152
2985:101 Introduction to Geographic and Land Information Systems (3)	
2990:125 Statics (3)	Prerequisites: 2820:162; 2030:153
2990:150 Plan Reading (3)	Prerequisite: 2990:131
2860:290 Special Topics: Electronic Engineering Technology (1-4)	

#### Program Contact

Program Director Greg Harstine, Schrank Hall South 221E, 330-972-6234 or [gph@uakron.edu](mailto:gph@uakron.edu)

#### Program Information

The rapid increase in the application of science and engineering to the needs of our economy has greatly intensified the demand not only for engineers and scientists, but also for the technicians who assist them. Engineering technicians make up one of the fastest growing occupational groups in the United States and are employed in virtually every activity where technical know-how is required. Their work requires the application of scientific and mathematical theory as well as specialized knowledge and skills in some aspect of technology. The engineering technician may become involved with electronic and mechanical instruments, experimental apparatus, computing devices, tool design, manufacturing and drafting. As part of the engineering team, the technician contributes to the technological progress and high level of productivity which characterizes our industry today.

The Electronic Engineering Technology curriculum is one of a number of associate degree programs offered through the COLLEGE OF APPLIED SCIENCE & TECHNOLOGY at The University of Akron. The program requires two years of full-time study and leads to the Associate of Applied Science Degree in Electronic Engineering Technology. The program may also be undertaken on a part-time evening basis generally requiring more than two years for completion. Both day and evening programs meet the standards of the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC/ABET) and are accredited by that organization.

The program is designed to prepare the individual to become a competent electronic technician capable of working and communicating with engineers, scientists, and production personnel. The first year provides a firm foundation in mathematics, electricity, and basic electronics. The second year builds directly on this background with applied electronic courses in such areas as computers, communications, controls, and instrumentation. Although the curriculum prepares the student for immediate technical employment, a portion is devoted to non-technical subjects in order to assist the individual in developing as a citizen and responsible human being.

#### **Career Information**

The demand by industry for electronic technicians is now and will continue to be great. It is estimated that thousands of new electronic technicians will be required each year. Electronic technicians find employment in many areas of the electronics field; some of the specific career opportunities include:

- Computer Technician - installation, implementation, maintenance of data processing hardware and systems.
- Engineering Aide - assists engineers in the design, development, and testing of new electronic equipment.
- Customer-Service Technician - installs, operates, and maintains electronic equipment located at the customer's installation. Also provides training for the customer's personnel.

- Communications Technician - installs and operates various types of commercial and govt. communications equipment.
- Plant Technician - works in electronic manufacturing operations in designing and setting up quality control and other tests for manufactured products. Also may supervise and train electronic production workers

For additional information, visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) or the Career Center at the Student Union, room 211 <http://www.uakron.edu/career>.

#### **Bachelor Degree Programs**

Upon completion of the Electronic Engineering Technology Associate of Applied Science Degree, a student may proceed to the Electronic Engineering Technology Bachelor of Science Degree. Please refer to the Electronic Engineering Technology Bachelor of Science degree Curriculum Guide for further information.

An additional degree option is to proceed to the Bachelor of Organizational Supervision degree.

#### **Transfer to the College of Applied Science and Technology**

To be admitted to the College of Applied Science and Technology, a student must have a GPA of 2.0. A student can complete the transfer process through an appointment with an Academic Advisor in the college in which they reside.