

# College of Applied Science and Technology

## ELECTRONIC ENGINEERING TECHNOLOGY

### 286103BS

Bachelor of Science Degree

[http://www.uakron.edu/summitcollege/engineering\\_tech/electronic-engineering-tech/index.dot](http://www.uakron.edu/summitcollege/engineering_tech/electronic-engineering-tech/index.dot)

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

Course work from an accredited institution in Electronic Engineering Technology or in a related program, with bridgework, is a requirement to pursue the Electronic Engineering Technology Bachelor of Science Degree. An Associate of Applied Science in Electronic Engineering Technology is required prior to completing the baccalaureate. Please refer to the Electronic Engineering Technology, Associate of Applied Science Curriculum Guide for further information.

The following is intended only as a guide to be used in conjunction with your advisor. Official degree requirements are established at the time of transfer and admission to the College of Applied Science & Technology. *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, prerequisites, among others.*

*Italicized* courses fulfill General Education requirements. Unless a course is specified, refer to the General Education guide at [http://www.uakron.edu/advising/docs/General\\_Education\\_Guide.pdf](http://www.uakron.edu/advising/docs/General_Education_Guide.pdf).

3 <sup>rd</sup> Year	Fall Semester	Credits	Prerequisites
2030:345	Technical Data Analysis (Note a.)	2	2030:154 or equivalent with grade of C- or better or placement by Advisor
2030:356	Technical Calculus II	3	2030:255 or equivalent with grade of C- or better or placement by Advisor
2820:111	<i>Introductory Chemistry (Sch. Lab) (Note a.)</i>	3	2030:152 co-requisite
3300:112	<i>English Composition II</i>	3	3300:111 or 2020:121 by permission
	Computer Programming Elective (Note c.)	2	
2860:350	Advanced Circuit Theory (Note a.)	3	2860:251; 2030:356 co-requisite
<b>Total</b>		<b>16</b>	

3 <sup>rd</sup> Year	Spring Semester	Credits	Prerequisites
2860:354	Advanced Circuit Applications (Note b.)	4	2860:350, 2030:356, and one of computer programming electives
2860:352	Microcontrollers (Sch. Lab) (Note b.)	4	2860:238 prerequisite, 2860:350 co-requisite
7600:106	<i>Effective Oral Communication</i>	3	
3400:210 or 3400:221	<i>Humanities in the Western Tradition</i> <b>-OR-</b> <i>Humanities in the World Since 1300</i>	4	32 credits & 3300:112 or equivalent
	<i>Humanities Requirement</i>	3	32 credits & 3300:112 or equivalent
<b>Total</b>		<b>18</b>	3400:210 or 3400:221

4 <sup>th</sup> Year	Fall Semester	Credits	Prerequisites
2860:453	Control Systems (Sch. Lab) (Note a.)	4	2860:354, 2870:301
2860:400	Computer Simulations in Tech. (Sch. Lab) (Note a.)	3	2860:354, 2030:345
2870:332	Management of Tech. Based Operations	3	
2920:310	Economics of Technology	3	64 credits or permission
	<i>Humanities Requirement</i>	3	3400:210 or 3400:221
	<i>Area Studies/Cultural Diversity Requirement</i>	2	2020:121 or equivalent
<b>Total</b>		<b>18</b>	

<b>4<sup>th</sup> Year Spring Semester</b>			
2860:406	Communication Systems (Note b.)	3	2860:251, 2860:354
	Electronic Technology Electives (Note d.)	3	
	<i>Area Studies/Cultural Diversity Requirement</i>	2	2020:121 or equivalent
	<i>Physical Education/Wellness Requirement</i>	1	
	Technical Electives (Note e.)	5	
<b>Total</b>		<b>14</b>	
	<b>Third &amp; Fourth Year Credits</b>	<b>66</b>	<b>135 Total Credits For BS</b>

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

**YOU MUST HAVE A MINIMUM CUMULATIVE GPA OF 2.0 TO GRADUATE WITH THIS DEGREE**

**NOTES**

Note a. Traditionally Fall only (See Program Contact)

Note b. Traditionally Spring only (See Program Contact)

Note c. Computer Programming Electives

Choose one of the following courses:

2820:310	Programming for Technologists	2	2030:255; 2820:121
2440:160	Java Programming	3	2440:121
2440:170	Visual Basic Programming	3	2440:121
2440:256	C++ Programming	3	2440:121
3460:126	Intro. to Visual Basic Programming	3	
3460:208	Intro. to C++ Programming	3	
3460:209	Intro. to Computer Science	4	3450::145 with C or better or equiv.
4450:208	Programming for Engineers	3	4400:101 or permission

Note d. Electronic Engineering Technology Electives

Please note that each of the following classes may be offered only once during the year, including the summer session. Consult with the Schedule of Classes Bulletin for exact scheduling of classes.

2860:290	Special Topics in Electronic Eng. Tech.	1-4	By permission only
2860:420	Biomedical Electronic Instrumentation	3	2860:354
2860:430	Senior Topics in Electronic Technology	3	2860:354, 400
2860:451	Industrial Electrical Systems	3	2860:354
2860:490	Special Topics in Electronic Eng. Tech.	1-4	By permission only

Note e. Technical Electives: Availability dependent on enrollment demands and classroom availability. Technical Electives are defined as courses outside of the Electronic Engineering Technology Program that support 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 five (5) credit hours from the courses listed below:

2820:112	Introductory & Analytical Chem. (Sch. Lab)	3	Prerequisite: 2820:111 or permission.
2870:348	CNC Programming I	3	Prerequisites: 2940:121, 2030:154 or permission.
2870:448	CNC Programming II	3	Prerequisite 2870:348
2870:470	Simulation of Manufacturing Systems	3	Prerequisite: 2880:211
2870:480	Automated Production	3	Prerequisites" 2880:211 or senior status
2880:110	Manufacturing Processes	3	
2880:201	Robotics & Automated Manufacturing	3	Prerequisite: 100 or permission.
2880:211	Computerized Manufacturing Control	3	Prerequisite: 2880:100
2920:249	Applied Thermal Energy	2	Prerequisites: 2030:255, 2820:164.

2920:251	Fluid Power	2	Prerequisites: 2820:162, 164
2920:252	Thermo Fluids Lab	1	Prerequisite: 251; Co-requisite: 249.
2920:365	Applied Thermal Energy II	3	Prerequisites: 2920: 249, 251, 2030:255
2940:240	Electrical and Electronic Drafting	3	
2990:125	Statics	3	Prerequisites: 2820:162 and 2030:153.
2990:245	Construction Estimating	3	Prerequisite: 150 and 2030:153.
2990:357	Construction Administration	2	
2990:453	Legal Aspects of Construction	2	Prerequisite: Admission into the BCET program or permission of instructor.
2990:463	Electrical Service Systems	3	
2940:211	Computer Aided Drawing II	3	
2990:462	Mechanical Service System	3	
3100:200	Human Anatomy and Physiology I	3	
3460:306	Assembly & System Prog.	4	

### PROGRAM CONTACT

Program Director Mr. Andrew Milks P.E., Schrank Hall South 221D, 330-972-2449 or [amilks@uakron.edu](mailto:amilks@uakron.edu)

### PROGRAM INFORMATION

Engineering technologists 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 to solve real world technical problems. The engineering technologist may become involved with electronic instruments and controls, experimental apparatus, computing devices, manufacturing processes and power distribution. As part of the engineering team, the technologist contributes to the technological progress and a high level of productivity which characterizes modern industry.

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

The program prepares the individual to become a competent electronic technologist capable of working and communicating with engineers, scientists, and production personnel. The third year provides a firm foundation in circuit analysis. The fourth year builds directly on this background with applied electronic courses in such areas as microcontrollers, communications, controls, instrumentation and software applications. 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

#### Placement or Optional Cooperative Education

Co-op work experiences are available on an optional basis in this academic program. To obtain additional information contact the Career Center regarding these opportunities.

For additional information regarding career opportunities in the Electronic Engineering Technology field, please visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) or the Career Center at the Student Union, room 2101, (330-972-7747) <http://www.uakron.edu/career>

### TRANSFER

A student can complete the transfer process by meeting with an Academic Adviser in the College in which they reside.

(Thorman/Milks)