

ELECTRICAL AND ELECTRONIC ENGINEERING TECHNOLOGY, BS

Bachelor of Science in Electrical and Electronic Engineering Technology (286103BS)



Program Contact

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Program Information

Graduates of the Electrical and Electronic Engineering Technology program will work with engineers in developing, manufacturing, testing and servicing Electrical/Electronic components, equipment and systems.

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

Program Educational Objectives

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies (i.e., students, alumni, employers of our students, and faculty of the program).

The Bachelor of Science in **Electrical and Electronic Engineering Technology (EEET)** program at the University of Akron has as its primary educational objective to produce technically capable graduates who within five years of graduation, will demonstrate:

- the fundamental knowledge and problem-solving skills to be productive as individual and team contributors in an electrical/electronic engineering technology career field.
- a commitment to accountability, attention to detail, and reliability.
- written and verbal communication skills developed in a broad-based university education.

Student Outcomes

Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program, including:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes;
5. an ability to function effectively as a member as well as a leader on technical teams.

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 211, (330-972-7747) <http://www.uakron.edu/career> (<http://www.uakron.edu/career/>)

The following information has official approval of **The Department of Engineering and Science Technology** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *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.* The transfer process is completed through an appointment with your academic advisor.

3rd Year

Fall Semester		Hours
2020:222	Technical Report Writing	3
2030:356	Technical Calculus II	3
	Computer Programming Elective ¹	2
	Electronic Engineering Technology Electives ⁴	6
	Hours	14

Spring Semester

2030:345	Technical Data Analysis ²	2
2870:301 or 2920:405	Computer Control of Automated Systems (Sch. Lab) or Introduction to Industrial Machine Control	3
2860:352	Microcontrollers (Sch. Lab) ³	4
2860:354	Advanced Circuits Applications	3
3400:210	Humanities in the Western Tradition from Ancient Times to 1500	4
	Hours	16

4th Year**Fall Semester**

2860:453	Control Systems (Sch. Lab) ²	4
	Arts Requirement	
	Complex Systems Tag Requirement	3
	Electronic Engineering Technology Electives ⁴	3
	Natural Science Requirement	3
Select one of the following:		3
7100:210	Visual Arts Awareness	
7500:201	Exploring Music: Bach to Rock	
	Arts Requirement	
	Hours	16

Spring Semester

2860:455	Senior Project ³	2
	Technical Electives ⁵	3
	Electronic Engineering Technology Electives ⁴	6
Select one of the following:		3
3300:252	Shakespeare & His World	
3600:101	Introduction to Philosophy	
	Arts or Humanities Requirement	
	Hours	14
	Total Hours	60

¹ Computer Programming Electives. Choose one of the following Computer Programming Electives courses.

² Traditionally Fall only. (See Program Contact).

³ Traditionally Spring only (See Program Contact).

⁴ Electronic Engineering Technology Electives. Please note that each of the following Electronic Engineering Technology Electives 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.

⁵ 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 three (3) credit hours from the Technical Electives courses listed below.

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.

Computer Programming Electives

Code	Title	Hours
2820:310	Programming for Technologists	2
3460:126	Introduction to Visual Basic Programming	3
3460:209	Computer Science I	4
4450:208	Programming for Engineers	3

Electronic Engineering Technology Electives

Code	Title	Hours
2860:238	Microprocessor Applications (Sch. Lab)	4
2860:251	Electronic Communications (Sch. Lab)	4
2860:290	Special Topics: Electronic Engineering Technology	1-4
2860:360	Virtual Instrumentation and Data Acquisition	3
2860:310	National Electrical Code and Electrical System Design	3
2860:350	Advanced Circuit Theory ¹	3
2860:400	Computer Simulations in Technology	3
2860:406	Communication Systems	3
2860:420	Biomedical Electronic Instrumentation	3
2860:451	Industrial Electrical Systems	3
2860:490	Special Topics: Electronic Engineering Technology	1-4

¹ Traditionally Fall only. (See Program Contact).

Technical Electives

Code	Title	Hours
2030:290	Special Topics: Associate Studies Mathematics	1-4
2030:361	Applied Cryptography	3
2030:480	Advanced Topics in Technical Mathematics	2
2820:111	Introductory Chemistry (Sch. Lab)	3
2820:112	Introductory & Analytical Chemistry	3
2820:290	Special Topics: General Technology	1-4
2850:200	Advanced Corrosion Technology	3
2870:332	Management of Technology Based Operations	3
2870:348	CNC Programming I	3
2870:448	CNC Programming II	3
2870:470	Simulation of Manufacturing Systems	3
2870:480	Automated Production	3
2880:110	Manufacturing Processes	3
2880:201	Robotics & Automated Manufacturing	3
2880:211	Manufacturing Operations	3
2920:101	Introduction to Mechanical Design	3
2920:142	Introduction to Material Technology	3
2920:249	Applied Thermal Energy I	2
2920:251	Fluid Power	2
2920:252	Thermo-Fluids Laboratory	1
2920:310	Economics of Technology	3
2880:140	Computer Aided Drawing	3
2940:240	Electrical & Electronic Drafting	3
2980:101	Basic Surveying	3
2985:101	Introduction to Geographic & Land Information Systems	3
2990:125	Statics	3
2990:150	Plan Reading	2
2990:245	Construction Estimating	3
2990:371	Green & Sustainable Building Practices	3
2990:453	Legal Aspects of Construction	2
2990:462	Mechanical Service Systems	3

2990:463	Electrical Service Systems	3
2990:469	Contracts and Specifications	2
3100:200	Human Anatomy & Physiology I	3
3460:306	Assembly and System Programming	4