

ASSOCIATE OF APPLIED SCIENCE IN ELECTRICAL ENGINEERING TECHNOLOGY

Graduates of the two-year electrical engineering technology program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating machinery. Most graduates are employed by electrical and electronic equipment manufacturers, utility companies, the aerospace industry, and manufacturing companies in general.

Students in the electrical engineering technology (EET) program may choose to complete two years of study and earn an Associate in Applied Science (AAS) degree. The AAS provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineering technologist or designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program.

Accreditation

The Associate of Applied Science in Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Program Criteria for Electrical Engineering Technology.

Date of last campus visit: October 2024
Accredited through: 2030
Next campus visit: October 2029

Curriculum Sheet

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses:		
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510 & MATH 1511	College Algebra and Trigonometry	
or MATH 1510C & MATH 1511C	College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
PHIL 2625	Introduction to Professional Ethics	3
Courses in Major:		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550 & ENGR 1560	Engineering Concepts and Engineering Computing	

EET 1501 & 1501L	Circuit Theory 1 and Circuit Theory 1 Lab	4
EET 1502 & 1502L	Circuit Theory 2 and Circuit Theory 2 Lab	4
EET 2605 & 2605L	Electronics 1 and Electronics 1 Laboratory	4
EET 2620 & 2620L	Digital Electronics and Digital Electronics Lab	3
EET 3710 & 3710L	Electrical Machines and Electrical Machines Lab	4
EET 3712 & 3712L	Programmable Logic Controllers and PLC Laboratory	4
EET 3715 & 3715L	Industrial Instrumentation and Control and Industrial Instrumentation and Control Lab	3
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
Total Semester Hours		61-68

First Year - Fall Semester

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
MATH 1513	Algebra and Transcendental Function	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550 & ENGR 1560	Engineering Concepts and Engineering Computing	
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1

Total Semester Hours 10-12

First Year - Spring Semester

COURSE	TITLE	S.H.
EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	

Total Semester Hours 15

Second Year - Fall Semester

COURSE	TITLE	S.H.
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
EET 3710	Electrical Machines	3
EET 3710L	Electrical Machines Lab	1
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	

Total Semester Hours 15-16

Second Year - Spring Semester

COURSE	TITLE	S.H.
EET 3712	Programmable Logic Controllers	3
EET 3712L	PLC Laboratory	1
EET 3715	Industrial Instrumentation and Control	2
EET 3715L	Industrial Instrumentation and Control Lab	1
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
ENGL 1551	Writing 2	3
PHIL 2625	Introduction to Professional Ethics	3
Total Semester Hours		17

Program Educational Objectives

Educational objectives for the electrical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the EET associate degree program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating machinery. Bachelor degree graduates are prepared to assist in the design and testing of electrical systems and may function independently in some areas.

During their first few years after earning the electrical engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their Electrical Engineering Technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition consistent with their educational achievements.

Program Learning Outcomes:

Graduates of the Associate Degree in Electrical Engineering Technology will possess the following competencies upon graduation:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;
2. an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in well-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; and
5. an ability to function effectively as a member of a technical team.