

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.

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.

Accreditation and Registration

The electrical engineering technology associate program is accredited by the ETAC Accreditation Commission of ABET, <http://www.abet.org>.

Date of last campus visit: October, 2011

Accredited through: 2018

Next campus visit: October, 2017

Link to accrediting body: ABET (<http://www.abet.org>)

COURSE	TITLE	S.H.
General Education Courses:		
MATH 1513	Algebra and Transcendental Function	5
MATH 1570	Applied Calculus 1	4
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
ECON 2610	Principles 1: Microeconomics	3
PHIL 2626	Engineering Ethics	3
or PHIL 2625	Introduction to Professional Ethics	

PHYS 1501	Fundamentals of Physics 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4

Total General Education Credit Hours: 32 s.h.

Courses in Major:		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
DDT 1503	AutoCAD 1	2
DDT 1504	Drafting and Plan Reading	2
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1
EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1
EET 3706	Electronics 2	3
EET 3706L	Electronics 2 Laboratory	1
EET 3710	Electrical Machines	3
EET 3710L	Electrical Machines Lab	1
EET 3735 & 3735L	Microprocessor Architecture and Programming and Microprocessor Architecture and Programming Laboratory	3

Total Major Credit Hours: 36 s.h.

Course	Title	S.H.
Year 1		
Fall		
ENTC 1501	Introduction to Engineering Technology	2
ENTC 1505	Engineering Technology Concepts	4
MATH 1513	Algebra and Transcendental Function	5
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1
CCET 1503 or DDT 1503	CAD Technology or AutoCAD 1	2
CCET 1504 or DDT 1504	Drafting and Plan Reading or Drafting and Plan Reading	2
Semester Hours		19
Spring		
EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
MATH 1570	Applied Calculus 1	4
ENGL 1550	Writing 1	3
PHIL 2626	Engineering Ethics (Arts and Humanities GER)	3
Semester Hours		14
Year 2		
Fall		
EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
ENGL 1551	Writing 2	3
ECON 2610	Principles 1: Microeconomics	3
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
Semester Hours		17

Spring

EET 3706	Electronics 2	3
EET 3706L	Electronics 2 Laboratory	1
EET 3710	Electrical Machines	3
EET 3710L	Electrical Machines Lab	1
EET 3735 & 3735L	Microprocessor Architecture and Programming and Microprocessor Architecture and Programming Laboratory	3
PHYS 1501	Fundamentals of Physics 1	4
CMST 1545	Communication Foundations	3
Semester Hours		18
Total Semester Hours		68

Graduates of the Associate Degree EET program will possess the following competencies upon graduation:

- **Learning Outcome 1:** be able to apply principles of mathematics and applied science, to perform technical calculations and solve technical problems of the types commonly encountered in electrical engineering technology careers
- **Learning Outcome 2:** demonstrate the ability to identify, formulate, and present creative solutions to technical problems in a variety of specialty areas within the broad fields of electrical engineering technology
- **Learning Outcome 3:** be able to function competently in a laboratory setting, making measurements, operating technical equipment, critically examining experimental results, and properly reporting on experimental results, including their potential for improvement.
- **Learning Outcome 4:** be able to use modern computational tools for technical problem solving, including scientific calculators, computers, and appropriate software.
- **Learning Outcome 5:** demonstrate a broad education and knowledge of contemporary issues in a global and societal context, as necessary to develop professional and ethical responsibility, including responsibility to employers and to society at large
- **Learning Outcome 6:** recognize the need for life-long learning and possess the skills to maintain and improve technical and non-technical abilities
- **Learning Outcome 7:** demonstrate an ability to communicate and function effectively with members of multi-disciplinary teams from a variety of backgrounds.
- **Learning Outcome 8:** demonstrate an ability to utilize computer software applications used in electrical engineering technology such as CAD, spreadsheets, word processing, and basic programming