

ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY - A.A.S.

College of Applied and Technical Studies

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Description

The Associate of Applied Science degree in Electrical/Electronic Engineering Technology provides students with a core of engineering-related courses and a focus on digital and electronic systems, robotics, microsystems and the design/development of electrical and electronic circuits.

Electrical and electronics engineering technicians help engineers design and develop computers, communications equipment, medical monitoring devices, navigational equipment and other electrical and electronic equipment. They often work in product evaluation and testing, using measuring and diagnostic devices to adjust, test and repair equipment.

The degree program articulates with Kent State's Bachelor of Science degree in Engineering Technology.

Fully Offered At:

- Trumbull Campus
- Tuscarawas Campus

Accreditation

The A.A.S. degree in Electrical/Electronic Engineering Technology (Tuscarawas Campus only) is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

Admission Requirements

The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

Kent State campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, and the Regional Academic Center in Twinsburg, have open enrollment admission for students who hold a high school diploma, GED or equivalent.

For more information on admissions, contact the Regional Campuses admissions offices.

Program Learning Outcomes

Graduates of this program will be able to:

1. Apply knowledge of mathematics, science and engineering to various areas of electrical and electronic engineering technology

2. Design and conduct experiments and to critically analyze and interpret data
3. Use modern engineering tools and techniques to design and test systems in response to user requirements, particularly in the electrical and electronic engineering technology field
4. Identify, formulate and solve problems
5. Function in a multidisciplinary team
6. Understand professional engineering and ethical responsibilities
7. Demonstrate effective oral, graphic and written communication
8. Recognize the need to engage in lifelong learning
9. Demonstrate commitment to quality, timeliness and continuous improvement
10. Utilize computer software applications, such as spreadsheets, word processing, basic programming and computer-aided design (CAD)

University Requirements

All students in an applied or technical associate degree program at Kent State University must complete the following university requirements for graduation.

NOTE: University requirements may be fulfilled in this program by specific course requirements, please see Program Requirements for details.

Code	Title	Credit Hours
	Destination Kent State: First Year Experience	1
	Course is not required for students with 25 transfer credits, excluding College Credit Plus, or age 21+ at time of admission.	
	Kent Core (see table below)	15
	Total Credit Hour Requirement	60

Some associate degrees require students to complete more than 60 credit hours.

Kent Core Requirements

Kent Core Composition (KCMP)	3
Kent Core Mathematics and Critical Reasoning (KMCR)	3
Kent Core Humanities and Fine Arts (KHUM/KFA)	3
Kent Core Social Sciences (KSS)	3
Kent Core Basic Sciences (KBS/KLAB)	3
Total Credit Hours:	15

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements (courses count in major GPA)		
EERT 12000	ELECTRIC CIRCUITS I	4
EERT 12001	ELECTRIC CIRCUITS II	3
EERT 12005	ELECTRICAL/ELECTRONIC DRAWING	2
EERT 12010	INTRODUCTION TO ELECTRONICS	4
EERT 21010	ENGINEERING AND PROFESSIONAL ETHICS ¹	3
or TECH 31010	ENGINEERING AND PROFESSIONAL ETHICS	
EERT 22004	DIGITAL SYSTEMS	4
EERT 22006	ELECTRICAL MACHINES	3
or TECH 43220	ELECTRICAL MACHINERY	
EERT 22011	ELECTRONIC SYSTEMS	2
EERT 22014	MICROPROCESSORS AND ROBOTICS	3
MERT 12000	ENGINEERING DRAWING	3
MERT 22009	ENGINEERING TECHNOLOGY PROJECT	2
Additional Requirements (courses do not count in major GPA)		
COMM 15000	INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
ENG 20002	INTRODUCTION TO TECHNICAL WRITING	3
or OTEC 26638	BUSINESS COMMUNICATIONS	
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
MATH 11012	INTUITIVE CALCULUS (KMCR)	3
MATH 11022	TRIGONOMETRY (KMCR)	3
UC 10097	DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1
Physics Elective A, choose from the following:		3-5
PHY 12201	TECHNICAL PHYSICS I (KBS) (KLAB)	
PHY 13001 & PHY 13021	GENERAL COLLEGE PHYSICS I (KBS) and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB)	
Physics Elective B, choose from the following:		3-5
PHY 12202	TECHNICAL PHYSICS II (KBS) (KLAB)	
PHY 13002 & PHY 13022	GENERAL COLLEGE PHYSICS II (KBS) and GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB)	
PHY 13012 & PHY 13022	COLLEGE PHYSICS II (KBS) and GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB)	
Kent Core Composition		3
Kent Core Humanities and Fine Arts		3
Kent Core Social Sciences		3
Minimum Total Credit Hours:		65

¹ Students admitted to the program on the Tuscarawas Campus must take EERT 21010 or TECH 31010 to fulfill ABET accreditation requirements. Students on other campuses may take a Kent Core Humanities and Fine Arts course.

Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
2.000	2.000

Roadmap

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester One		Credits
!	EERT 12000 ELECTRIC CIRCUITS I	4
	MATH 11010 ALGEBRA FOR CALCULUS (KMCR)	3
!	MERT 12000 ENGINEERING DRAWING	3
	UC 10097 DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1
	Kent Core Requirement	3
	Kent Core Requirement	3
	Credit Hours	17
Semester Two		
!	EERT 12001 ELECTRIC CIRCUITS II	3
!	EERT 12010 INTRODUCTION TO ELECTRONICS	4
	ENG 20002 INTRODUCTION TO TECHNICAL WRITING or or BUSINESS COMMUNICATIONS OTEC 26638	3
	MATH 11012 INTUITIVE CALCULUS (KMCR)	3
	MATH 11022 TRIGONOMETRY (KMCR)	3
	Credit Hours	16
Semester Three		
	COMM 15000 INTRODUCTION TO HUMAN COMMUNICATION (KADL)	3
	EERT 12005 ELECTRICAL/ELECTRONIC DRAWING	2
!	EERT 22011 ELECTRONIC SYSTEMS	2
!	EERT 22014 MICROPROCESSORS AND ROBOTICS	3
	Physics Elective A	3-5
	Credit Hours	13
Semester Four		
	EERT 21010 ENGINEERING AND PROFESSIONAL ETHICS or or ENGINEERING AND PROFESSIONAL TECH 31010 ETHICS	3
!	EERT 22004 DIGITAL SYSTEMS	4
	EERT 22006 ELECTRICAL MACHINES or or ELECTRICAL MACHINERY TECH 43220	3
!	MERT 22009 ENGINEERING TECHNOLOGY PROJECT	2
	Physic Elective B	3-5
	Kent Core Requirement	3
	Credit Hours	19
	Minimum Total Credit Hours:	65