

EFFECTIVE BEGINNING ACADEMIC YEAR 2024-25

LAST REVISED: April 4, 2025

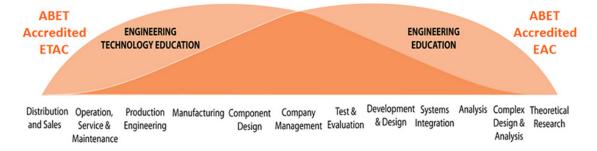
"Engineering and engineering technology are separate but closely related professional areas that differ in:

Curricular Focus – Engineering programs often focus on theory and conceptual design, while engineering technology programs usually focus on application and implementation. Engineering programs typically require additional, higher-level mathematics, including multiple semesters of calculus and calculus-based theoretical science courses, while engineering technology programs typically focus on algebra, trigonometry, applied calculus, and other courses that are more practical than theoretical in nature.

Career Paths – Graduates from engineering programs are called engineers and often pursue entry-level work involving conceptual design or research and development. Many continue on to graduate-level work in engineering. Graduates of four-year engineering technology programs are called technologists, while graduates of two-year engineering technology programs are called technicians.

These professionals are most likely to enter positions in sectors such as construction, manufacturing, product design, testing, or technical services and sales. Those who pursue further study often consider engineering, facilities management, or business administration.

There is much overlap between the fields. Engineers may pursue MBAs and open their own consulting firms, while technologists may spend their entire careers in design capacities."



Students who earn an Associate of Applied Science (AAS) degree in Electrical Engineering Technology are able to enter the workforce. However, those who are interested in also earning a bachelor's degree at some point in time may use the Ohio Guaranteed Transfer Pathway, detailed below, to transfer and apply the credits earned during their AAS program toward a bachelor's degree in Engineering Technology at a public four-year institution of higher education in Ohio.

Sources: Definition comes from the Accreditation Board for Engineering and Technology (ABET), and the graphic comes from the American Society of Mechanical Engineers (ASME).



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This pathway fulfills the requirements for an Associate of Applied Science in Electrical/Electronic Engineering Technology at Cuyahoga Community College.

GENERAL E	DUCATION REQUIREMENTS/OHIO TRANSFER 36	COURSE NUMBER	CREDIT HOURS
ENGLISH CO	MPOSITION AND ORAL COMMUNICATION		3
Course 1:	Any Ohio Transfer 36 approved First Writing (TME001) course	ENG 1010/ 101H	3
MATHEMATI	CS, STATISTICS, AND LOGIC		5-7
Course 1:	Precalculus (TMM002) or College Algebra (TMM001) and Trigonometry (TMM003)¹	MATH 1580, or 1530/153H & 1540/154H ²	5-7
ARTS AND H	UMANITIES		3
Course 1:	Any Ohio Transfer 36 approved Arts and Humanities course	PHIL 2020/202H	3
SOCIAL AND BEHAVIORAL SCIENCES			3
Course 1:	Any Ohio Transfer 36 approved Social and Behavioral Sciences course	PSY 1050	3
NATURAL SCIENCES			4
Course 1:	Algebra-based Physics I (OSC014)	PHYS 1210	4
GENERAL E	DUCATION/OHIO TRANSFER 36 TOTAL:		18-20

Advising Notes:

Where it indicates "Any Ohio Transfer 36 approved," students should work closely with their advisors.

¹ Calculus (TMM005) is recommended, either in fulfillment of the mathematics requirement or as an elective course, since certain bachelor degree programs prefer that Calculus be taken prior to transfer in order to allow students to complete the program most efficiently. However, there are also bachelor degree programs that will incorporate Calculus into the remaining coursework upon transfer. Students should work with their academic advisor and their intended receiving institution to determine the best program of study.

² MATH 1580 and 1610/161H can be taken in place of MATH 1530/153H and 1540/154H.

ADDITIONA	AL/APPLIED GENERAL EDUCATION REQUIREMENTS	COURSE NUMBER	CREDIT HOURS
Course 1:	Algebra-based Physics II (OSC015) (preferred) or other Ohio Transfer 36 Natural Sciences course	PHYS 1220	4
Course 2:	Public Speaking (OCM013), Oral Communication (TMOC), Technical Writing, or Second Writing (TME002) course	ENG 1020/102H or ENG 2151	3
ADDITIONAL	L/APPLIED GENERAL EDUCATION TOTAL:		7



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PRE-MAJO	R/BEGINNING MAJOR	COURSE NUMBER	CREDIT HOURS
Course 1:	DC Circuits (OET001)	EET 1161	3
Course 2:	Digital Electronics (OET002)	EET 1241	3
Course 3:	AC Circuits (OET003)	EET 1210	3
Course 4:	Microprocessor/Microcontrollers (OET004)	EET 2242	3
Course 5:	Electronics (OET005)	EET 2120	3
Course 6:	Programmable Logic Controllers (OET022)	EET 2520	3
PRE-MAJO	R/BEGINNING MAJOR TOTAL:		18

ADDITIONAL COURSEWORK	COURSE NUMBER	CREDIT HOURS
	EET 1180	1
	EET 1190	2
	MET 1100	2
Technical Electives (Recommended: Engineering Graphics, Programming Languages, Machine Design, and/or a second Manufacturing Processes course)	EET 2112	3
	EET 2170	3
	EET 2220	3
	EET 2290	2
	EET 2500	3
OTHER RECOMMENDATIONS TOTAL:		19

APPLIED ASSOCIATE DEGREE	Total Credit Hours
APPLIED ASSOCIATE DEGREE TOTAL:	62-64

SPECIAL NOTES

Some bachelor-degree granting programs may be competitive and admission into the program is not guaranteed. Students should check with individual institutions for their program admission requirements.

Bachelor-degree granting institutions may require additional general education courses since students will not complete the Ohio Transfer 36 by following this pathway and will take these courses upon transfer.

For additional information, please contact:

Transfer Center

transfercenter@tri-c.edu

216-987-3841

 $\underline{https://www.tri-c.edu/transfer/transfer-resources/ohio-guaranteed-transfer-pathways.html}$



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SAMPLE DEGREE MAP

FIRST YEAR

SEMESTER 1	
COURSE NAME & NUMBER	CREDIT HOURS
ENG 1010/101H English Composition	3
EET 1180 Surface Mount Soldering	1
EET 1190 Printed Circuit Layout	2
EET 1161 Direct Current Circuits	3
MET 1100 Technology Orientation	2
PSY 1050 Intro to Industrial/ Organizational Psychology	3
Total SEMESTER 1 Credit Hours	14

SEMESTER 2	
COURSE NAME & NUMBER	CREDIT HOURS
EET 1210 AC Electric Circuits	3
EET 1241 Digital Fundamentals	3
MATH 1530/153H College Algebra	4
PHIL 2020/202H Ethics/Honors	3
ENG 1020/102H or ENG 2151 English	3
Total SEMESTER 2 Credit Hours	16

SECOND YEAR

SEMESTER 3		
COURSE NAME & NUMBER	CREDIT HOURS	
EET 2112 Industrial Electronics	3	
EET 2120 Electronics I	3	
PHYS 1210 College Physics I	4	
EET 2242 C and ASM Programming with Embedded Applications	3	
MATH 1540/154H Trigonometry/Honors	3	
Total SEMESTER 3 Credit Hours	16	

SEMESTER 4		
COURSE NAME & NUMBER	CREDIT HOURS	
EET 2220 Electronics II	3	
EET 2290 Electrical Design Project	2	
EET 2170 Signal Analysis	3	
EET 2500 Instrumentation and Control	3	
EET 2520 Programmable Logic	3	
PHYS 1220 College Physics II	4	
Total SEMESTER 4 Credit Hours	18	