Department of Engineering Technology Bachelor of Science in Applied Science—Completion Program **Major: Electrical and Computer Engineering Technology** For students entering Fall 2023 and after Central Ohio Technical College

### Catalog Year: Fall 2023

The Electrical and Computer Engineering Technology bachelor completion program is designed for students who have completed an associate degree in electrical/electronic, electrical and computer engineering technology. The degree is also open to students with associate degrees in mechanical, electro-mechanical, robotics, or related fields, potentially requiring additional credit hours for the latter group. Through this program students can complete their bachelor's degree by completing two-years of additional credit hours beyond their associate degree. Additional information is available through the <u>Department of Engineering Technology</u>.

To graduate with the Bachelor of Science in Applied Science degree, students must first meet all Miami University admission requirements noted on this <u>website</u>. Students must also meet Miami's <u>general requirements for graduation</u>, including: (1) completion of 124 credit hours; (2) completion of a minimum of 30 credit hours at Miami of which the final 12 credit hours must be taken at Miami; and (3) attainment of a minimum of a 2.00 cumulative grade point average at the time of graduation.

Note: Neither Miami University nor Central Ohio Technical College shall use the name, logo, likeness, trademarks, image or other intellectual property of either of the other parties for any advertising, marketing, endorsement or any other purposes without the specific prior written consent of an authorized representative of the other party as to each such use. Central Ohio Technical College may refer to the affiliation with Miami University in public information materials regarding the relevant program. Miami University reserves the right to review and request modification of Central Ohio Technical College's reference to Miami University as necessary. Central Ohio Technical College may refer to the affiliation with Miami in its brochures and other public information materials having to do with the program.

The plan of study below illustrates: 1) how courses completed at Central Ohio Technical College transfer to Miami University, and (2) what courses the student needs to complete at Miami in order to earn the Bachelor of Science in Applied Science degree with a major in Electrical and Computer Engineering Technology. Please note the matches in this document indicate specific courses you may be awarded after successfully completing those courses and transferring to Miami University.

Students completing the OT36 through their General Education credits will have completed most requirements for Miami Plan Perspectives Areas and Signature Inquiries. Students entering Miami having completed the OT36 must complete 9 credits of Signature Inquiry, however this may be met by matching equivalent Perspectives courses that have a Signature Inquiry designation. Students will also need to complete coursework in Global Citizenship (Intercultural Consciousness or Global Inquiry for 3 credits), Knowledge in Action: Experiential Learning (0 credits), and a Senior Capstone (3 credits).

Courses that do not have a Miami University equivalent will be recorded as "T" courses on the student's Miami University academic record. With the assistance of an academic advisor, students can petition for some "T" courses to count toward Miami University degree requirements.

## Foundation Requirements

\* Included in the Ohio Transfer Module (OTM)

Required Course from Miami	Acceptable Central Ohio Technical College Transfer Credit
ENG 111, One year of Freshman English College I Composition or	ENG 112* English Composition I
ENG 109 College Composition for Second Language Writers	
ECO 201 Microeconomics or ECO 202 Macroeconomics	ECO 105* Microeconomics or
	ECO 110* Macroeconomics
STC 135 Intro to Public Expression and Critical Inquiry	SPCH 205* Public Speaking OR SPCH 100
or STC 136 Intro to Interpersonal Communication	Fundamentals of Communication
ENG 215 Workplace Writing or	ENG 208 Workplace Writing
ENG 313 Technical Writing	
PHY 161 Physics for Life Sciences I with Lab OR	PHYS 110* Physics with Lab I
PHY 181 General Physics I and PHY 183 Lab	
PHY 162 Physics for Life Sciences II with Lab OR	PHYS 111* Physics with Lab II
PHY 182 General Physics II and PHY 184 Lab	
CHM 141 College Chemistry (3) and	CHEM 110* Chemistry I
CHM 144 College Chemistry Lab (2)	
MTH 151 Calculus I	MATH 200* Calculus I
MTH 251 Calculus II	MATH 210* Calculus II
Approved Intercultural Perspectives or Intercultural	SOC 110* Cultural Diversity
Consciousness Elective (Online Options)	

Complete Engineering Technology (ENT) core courses listed below. You should have taken some of these in your associate degree program. Calculus I must be completed prior to starting Miami courses.

# **Engineering Technology Core Courses**

Required Course from Miami	Acceptable Central Ohio Technical College Transfer Credit
CSE 153 Introduction to C/C++ Programming or similar course	
ENT 192 Circuit Analysis I (3) [OET001 DC Circuits]	ELEC 113 Circuit Analysis I
ENT 193 Circuit Analysis II (3) [OET003 AC Circuits]	ELEC 213 Circuit Analysis II
ENT 196 Electronics (3) [OET005 Electronics]	
ENT 271 Mechanics I – Statics [OET007 Statics]	
ENT 293 Digital Systems [OET002 Digital]	ELEC 241 Digital Systems
ENT 294 Local area Networks	
ENT 295 Microprocessor Technology I [OET004 Microprocessors]	
MTH 245 Differential Equations	Take from Miami
Technical Electives	
Take ONE of the following technical electives from Miami: ENT313 - Introduction to Robotics	Take from Miami
ENT413 - Industrial Robotics Lab	
STA 261 or STA 301 Applied Statistics ***	MATH 130 Statistics or Take from Miami
ENT 301 Dynamics ***	Take from Miami
ENT 302 Fundamentals of Signals & Systems ***	Take from Miami
ENT 303 Digital Signal Processing for Tech. ***	Take from Miami

Required Course from Miami	Acceptable Central Ohio Technical College Transfer Credit
ENT 311 Process Control Interface Design	Take from Miami
ENT 316 Project Management	Take from Miami
ENT 387 Embedded Microcontrollers	Take from Miami
ENT 401 Computerized instrumentation	Take from Miami
ENT 402 Industrial Automation Lab	Take from Miami
ENT 403 Wireless Communication & Networks	Take from Miami
ENT 418 Electromechanical Control Systems	Take from Miami
ENT 497 Senior Design I	Take from Miami
ENT 498 Senior Design II	Take from Miami

Distance Courses Offered Via WebEx from Miami.

Calculus I must be completed prior to starting Miami courses.

**\*\*\***Transfer Equivalencies within ENT program ONLY

## **SPECIAL NOTES**

- 1. When applying to Miami University Regionals, please apply early for best course availability. For Fall applicants, we suggest applying in the Spring semester.
- 2. Application Deadlines: Fall Admission August 1<sup>st</sup>. Spring Admission January 1<sup>st</sup>.
- Transfer Scholarship Deadlines: Fall Admission June 1. Spring Admission December 1. See the Miami Regionals scholarship page for more information: <u>https://www.miamioh.edu/regionals/tuition-financial-aid/scholarships/index.html</u>

# Link to Miami degree program

http://www.miamioh.edu/regionals/ent

#### Miami Contact Name and Information:

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