

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 from  
Northwest State Community College

**Catalog Year: Fall 2023**

Miami University and Northwest State Community College are parties to an agreement titled **INSTITUTIONAL ARTICULATION AGREEMENT BETWEEN MIAMI UNIVERSITY AND NORTHWEST STATE COMMUNITY COLLEGE** entered into on September 25, 2024 (the “[Agreement](#)”). This Pathway is entered into pursuant to the terms and conditions of the Agreement, and is hereby incorporated into the Agreement by this reference. Except as otherwise set forth, the Agreement is unaffected and shall continue in full force and effect in accordance with its terms.

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 [Department of Engineering Technology](#).

To graduate with the Bachelor of Science in Applied Science degree, students must first meet all Miami University admission requirements noted on this [website](#). Students must also meet Miami's [general requirements for graduation](#), 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 Northwest State Community 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. Northwest State Community 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 Northwest State Community College's reference to Miami University as necessary. Northwest State Community College may refer to the affiliation with Miami in its brochures and other public information materials having to do with the program.*

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The plan of study below illustrates: 1) how courses completed at Northwest State Community College transfer to Miami University, and (2) what courses the student needs to complete at Miami in order to earn the Bachelor of 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). Students entering Miami University with an Associate of Arts or an Associate of Science degree will not need to complete the Signature Inquiry requirement.

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.

Required Course from Miami	Acceptable Northwest State Community College Transfer Credit
<b>Foundation Requirements</b> * Included in the Ohio Transfer Module (OTM)	
ENG 111, One year of Freshman English College I Composition or ENG 109 College Composition for Second Language Writers	ENG 111* English Composition I
ECO 201 Microeconomics or ECO 202 Macroeconomics	ECO 211* Macroeconomics or ECO 212* Microeconomics
STC 135 Intro to Public Expression and Critical Inquiry or STC 136 Intro to Interpersonal Communication	ENG 113 Speech or ENG 214 Discussion and Conference Method
ENG 215 Workplace Writing or ENG 313 Technical Writing	ENG 210* Technical Communication
PHY 161 Physics for Life Sciences I with Lab OR PHY 181 General Physics I <b>and</b> PHY 183 Lab	PHY 251* Physics: Mechanics & Heat
PHY 162 Physics for Life Sciences II with Lab OR PHY 182 General Physics II <b>and</b> PHY 184 Lab	PHY 252* Physics: Electricity & Magnetism
CHM 141 College Chemistry (3) and CHM 144 College Chemistry Lab (2)	CHM 201* General Chemistry I or CHM 101* Principles of Chemistry
MTH 151 Calculus I	MTH 213* Calculus I
MTH 251 Calculus II	MTH 214* Calculus II
Approved Intercultural Perspectives <b>if admitted to Miami prior to Fall 2023</b> or Intercultural Consciousness Elective <b>if admitted to Miami on or after Fall 2023</b> (Online Options)	Take from Miami

***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.***

Required Course from Miami	Acceptable Northwest State Community College Transfer Credit
<b>Engineering Technology Core Courses</b>	
CSE 153/163 Introduction to C/C++ Programming or similar course	CIT 150 C++ Programming EET 107 Python
ENT 192 Circuit Analysis I (3) [OET001 DC Circuits]	EET 121 DC Circuits
ENT 193 Circuit Analysis II (3) [OET003 AC Circuits]	EET 122 AC Circuits
ENT 196 Electronics (3) [OET005 Electronics]	EET 277 Industrial Electronics
ENT 271 Mechanics I – Statics [OET007 Statics]	MET 235 Statics
ENT 293 Digital Systems [OET002 Digital]	EET 221 Digital Electronics
ENT 294 Local area Networks	EET 272 Cisco Networking I
ENT 295 Microprocessor Technology I [OET004 Microprocessors]	EET 231 Microprocessors
MTH 245 Differential Equations	MTH 216 or Take from Miami
Technical Electives Take ONE of the following technical electives from Miami: ENT313 - Introduction to Robotics ENT413 - Industrial Robotics Lab	Take from Miami
STA 261 or STA 301 Applied Statistics ***	STA 120 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
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.	
<b>**Transfer Equivalencies within ENT program ONLY</b>	

## 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>.
3. Transfer Scholarship Deadlines: Fall Admission – June 1. Spring Admission – December 1. See the Miami Regionals scholarship page for more information: <https://www.miamioh.edu/regionals/tuition-financial-aid/scholarships/index.html>

**Link to Miami degree program**

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

**Miami Contact Name and Information:**

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