The Robotics Engineering Technology major encompasses industrial automation, autonomous systems and artificial intelligence. Robotics is a highly interdisciplinary field synthesizing elements from electrical and computer engineering, computer science, mechanical and manufacturing engineering and mathematics. Excellent employment opportunities exist for well-prepared graduates.

RECOMMENDED FOUR-YEAR PLAN

First Year

First Semester • 15 Credit Hours	*Second Semester • 15 - 16 Credit Hours*
ENG 111 English Composition (3)	**ENT 196** Electronics (3)
ENT 135 Computer-Aided Drafting (3)	**MTH 151** Calculus (5)*
ENT 192 Circuit Analysis I (3)	**PHY 161** Physics for LIfe Science I (4) or **PHY 191** Physics with Lab I (5)
BRIDGE COURSES Technical electives chosen in consultation with advisor (6)	**BRIDGE COURSES** Technical electives chosen in consultation with advisor (3)

Second Year

First Semester • 16 - 17 Credit Hours	*Second Semester • 18 - 19 Credit Hours*
ENT 271 Mechanics I: Statics (3)	**ENT 296** Programmable Logic Controllers (3)
ENT 293 Digital Systems (3)	**ENT 301** Dynamics (3)
PHY 162 Physics for LIfe Science II (4) or **PHY 192** Physics with Lab II (5)	**ECO 201** Principles of Microeconomics (3) or **ECO 202** Principles of Macroeconomics (3)
EGS 215 Workplace Writing (3) or **ENG 313** Technical Writing (3)	**CSE 153** C++ Programming (3) or **CSE 163** Intro to Computer Programming (3)
MPF III Global Perspectives (3)	**STC 136** Intro to Interpersonal Communication (3) or **STC 135** Principles of Public Speaking (3)
	MPV IV Natural Science (biological) (3-4)

Third Year

First Semester • 16 Credit Hours	*Second Semester • 18 - 19 Credit Hours*
ENT 272 Mechanics II: Strength of Materials (3)	**ENT 316** Project Management (3)
ENT 311 Process Control Interface Design (3)	**ENT 413** Industrial Robotics Lab (3)
ENT 313 Intro to Robotics Systems (3)	**STA 301** Applied Statistics (3) or **STA 261** Statistics (4)
MTH 251 Calculus II (4)	**MPF IIB** Humanities (3)
BRIDGE COURSES Technical electives chosen in consultation with advisor (3)	**MPF III** Global Perspectives (3)
	MP-IP Intercultural Perspectives (3)

Fourth Year

First Semester • 16 Credit Hours	*Second Semester • 14 Credit Hours*
ENT 401 Computerized Instrumentation (3)	**ENT 407** Modern Mfg. Systems (3)
ENT 417 Integrated Robotics System Design (3)	**ENT 418** Electo-Mechanical Control Systems (3)
ENT 497 Senior Design Project I (2)	**ENT 498** Senior Design Project II (2)
CHM 141/144 College Chemistry with Lab (5)	**MTH 231** Elements of Discrete Mathematics (3) or **MTH 222** Intro to Linear Algebra (3)***
MTH 245 Differential Equations for Engineers (3)	**MPF IIA** Creative Arts (3)

* Depending on mandatory math placement.
** Choose in conjunction with your faculty advisor
*** Completes Thematic Sequence MTH-2: Basic Mathematical Tools for Science

This planning sheet does not guarantee offer of classes in any given semester; please consult with an Advisor to schedule your classes appropriately. Your degree audit is your official program record.

CAREER OPTIONS

The Robotics Engineering Technology is a baccalaureate completion program that prepares graduates to design solutions to address problems in areas such as factory automation, building automation, and motion control and robotics. Graduates are engineers prepared to fill positions in areas directly related to the design and development of robotics systems and robot systems engineering, including:

- Factory Automation
- Building Automation
- Robotic Product Design

- Motion Control
- Robotics Sales and Service

GRADUATION REQUIREMENTS

Students must earn a minimum of 124 credit hours, achieve an overall GPA of 2.0 and a 2.0 in all required ENT courses in order to qualify for graduation. Students should consult with their degree audit and advisor to ensure that all degree requirements are met prior to graduation.

http://bulletin.miamioh.edu/liberal-arts-applied-science/engineering-technology-bs/

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ABBREVIATION KEY

MP-EL = Experiential Learning

MPF I = English Composition

MPF IIC = Social Science

MPF V = Mathematics, Formal Reasoning, Technology

MPT = Thematic Sequence

MP-AW = Advanced Writing

MPF = Global Miami Plan Foundation

MPF IIB = Humanities

MPF IV = Natural Science

MP-IP = Intercultural Perspectives

MPF IIA = Creative Arts

MPF III = Global Perspectives

Effective Fall 2022