MIAMI UNIVERSITY | COLLEGE OF LIBERAL ARTS AND APPLIED SCIENCE

BS: Robotics Engineering Technology (with ECET AAS)

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

Department of Engineering Technology
513-785-7706
ent@MiamiOH.edu

Office of Advising
513-727-3440
regadvising@MiamiOH.edu

Tutoring and Learning Center (TLC)
513-785-3139
REGTLC@MiamiOH.edu

Career Services & Professional Development
513-727-3390
miamiregionalscareer@MiamiOH.edu

Plan Recommendation Chart

	Hours	Course Number or Related Information
Perspectives Area: Formal Reasoning and Communication	**9**	
Mathematics and Formal Reasoning	3	MTH151 Calculus
English Composition	3	ENG111 English Composition (or ENG 109)
Advanced Writing	3	EGS215 Workplace Writing or ENG313 Technical Writing
Perspectives Area: Science and Society	**15-16**	
Social Sciences #1	3	ECO201 Microeconomics or ECO202 Macroeconomics
Social Sciences #2	3	APC/STC136 Intro to Interpersonal Communication
Natural Science #1	4	PHY161 Physics for Life Science I or PHY181 College Physics I
Lab	2	CM144 College Chemistry Lab
Natural Science #2	3-4	CHM141/CHM 141R College Chemistry
Perspectives Area: Arts and Humanities	**6**	
Creative Arts	3	Choice
Humanities	3	Choice
Perspectives Area: Global Citizenship	**12**	
Ethical Citizenship and Leadership	3	Choice
Intercultural Consciousness	3	Choice
Global Inquiry	3	Choice
Intercultural or Global	3	Choice – any Miami Plan Global Inquiry **OR** Intercultural Consciousness
Signature Inquiry	**9**	
Signature Inquiry #1	3	Choice
Signature Inquiry #2	3	Choice
Signature Inquiry #3	3	Choice
Knowledge in Action	**3+**	
Senior Capstone	3	ENT497/498 Senior Design Project
Experiential Learning	0+	ENT497 Senior Design Project

2025-26 Robotics ENT Plan of Study (w/ECET AAS)

An ENT AAS is a requirement for the Bach. degree and built into the 4 year plan. There are AAS courses here that are only on the AAS DAR.

Year One

Fall Semester	Hours
ENG111 College Composition	3
ENT135 Computer-Aided Drafting	3
ENT192 Circuit Analysis I	3
MTH124 Trigonometry	3
PA Humanities	3
ENT 137 Introduction to Engineering Technology	1
Total	**16**

Spring Semester	Hours
APC/STC136 Intro to Interpersonal Communication	3
ENT193 Circuit Analysis II	3
ENT196 Electronics	3
MTH151 Calculus	4
CIT163 Intro to Computer Programming or **CIT153** Intro to C/C++ Programming	3
Total	**16**

Year Two

Fall Semester	Hours
ENT293 Digital Systems	3
ENT294 Local Area Networks	3
PHY161 Physics for Life Science I OR **PHY181+183** General Physics I	4-5
EGS215 Workplace Writing or **ENG313** Technical Writing	3
PA Global Citizenship	3
Total	**16-17**

Spring Semester	Hours
ENT295 Microcontrollers	3
ENT296 Programmable Logic Controllers I	3
PHY162 Physics for Life Science II OR **PHY182+184** General Physics II (Note: if taking PHY 182+184 you will need to take the co-requisite MTH 251 now)	4-5
PA Global Citizenship	3
ECO201 Principles of Microeconomics or **ECO202** Principles of Macroeconomics	3
Total	**16-17**

Year Three

Fall Semester	Hours
ENT271 Mechanics I: Statics	3
ENT311 Process Control Interface Design	3
ENT313 Intro to Robotics Systems	3
MTH251 Calculus II	4
ENT301 Dynamics	3
Total	**16**

Spring Semester	Hours
ENT272 Mechanics II: Strength of Materials	3
ENT316 Project Management	3
ENT413 Industrial Robotics Lab	3
STA301 Applied Statistics or **STA261** Statistics	3
PA Global Citizenship	3
Total	**15**

Year Four

Fall Semester	Hours
ENT401 Computer Instrumentation	3
ENT417 Integrated Robotics System Design	3
ENT497 Senior Design Project I	2
CHM141/R+CHM144 College Chemistry w/Lab	5-6
MTH245 Differential Equations for Engineers	3
Total	**16-17**

Spring Semester	Hours
ENT407 Modern Manufacturing Systems	3
ENT418 Electro-Mechanical Control Systems	3
ENT498 Senior Design Project	2
PA Global Citizenship	3
PA Creative Arts	3
Total	**14**

There is a minimum of 124 hours required to graduate. To finish in eight semesters, take Major or PA courses that also complete the Signature Inquiry (SI) requirement.

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For advising questions, please contact your assigned advisor or Regional Academic Advising at regadvising@MiamiOH.edu or 513-727-3440