



Below is the natural sequence of Artificial Intelligence and Robotics Engineering program courses designed for students to register per semester. Other degree requirements and comprehensive details are to be found in the AUIS Academic Catalog.

Course Code and Description		Credits	Prerequisite(s)	✓
1st Semester				
MTH 232 - Calculus I	3	None		
MTH 235 - Discreet Math	3	None		
ENGR 230 - Engineering Drawing	3	None		
CIV 101 - The Ancient World History	3	None		
ENG 101 - Argument	3	None		
Total Credits	15			
2nd Semester				
ITE 202 - IT Systems	3	CSC 101 or ENGR 230		
ENGR 231 - Fabrication Shop (Team-based Problem Solving)	3	ENGR 230		
PHYS 232 + PHYSL 232 - Calculus Based Physics I + Calculus Based Physics Lab I	4	MTH 232		
MTH 340 - Linear Algebra	3	MTH 232		
ENGR 244 - Engineering Computing	3	Co-requisite: MTH 340		
Total Credits	16			
3rd Semester				
STT 342 - Engineering Statistics	3	ENGR 244		
MTH 233 - Calculus II	3	MTH 232		
ENG 102 - Critical Reading	3	ENG 101		
PHYS 233 + PHYSL 233 - Calculus-based Physics II + Calculus-based Physics Lab II	4	PHYS 232 + PHYSL 232		
ITE 303 - Introduction to Programming	3	ITE 202		
Total Credits	16			
4th Semester				
ITS 350 - Introduction to Data Structures and Algorithms	3	ITE 303		
ITS 310 - Computing and Robotics	3	ITE 303		
ENGR 344 - Mechanics I: Statics	3	PHYS 232 + PHYSL 232		
ENG 203 - Research & Project - Writing	3	ENG 102		
ENGR 390 - Circuits	3	PHYS 233 + PHYSL 233		
Total Credits	15			
5th Semester				
ENGR 444 - Engineering Project Management	3	ENGR 231		
MTH 332 - Differential Equations	3	MTH 233		
ENGR 313 - Measurements Laboratory	3	PHYS 233 + PHYSL 233		
CIV 203 - Civilization III: The Ancient World (Humanities)	3	CIV 101		
ENGR 320 Introduction to Artificial Intelligence	3	STT 342		
ENGR 320L Introduction to Artificial Intelligence Laboratory	1	ITE 202 + CoReq: ENGR 320		
Total Credits	16			
6th Semester				
ENGR 348 - Mechanics II: Dynamics	3	ENGR 344		
Engineering / IT / SE Elective	3	See course description		
Engineering / IT / SE Elective	3	See course description		
ENGR 323 - Data Science and Analytics	3	Co-requisite: STT 342		
ENGR 324 - Mechatronics	3	ENGR 390		
Total Credits	15			
7th Semester				
ENGR 491 - Design I	3	ENG 203, ENGR 231		
ENGR 426 - Digital Signal Processing	3	MTH 332 + ITE 303		
ENGR 461 - System Dynamics and Control	3	ENGR 390 + MTH 332		
ENGR 422 - Computer Vision	3	ITS 350		
ENGR 366 - Applied Electronics	3	ENGR 390		
Total Credits	15			
8th Semester				
ENGR 492 - Design II	3	ENGR 491		
ENGR 423 - Large Language Models	3	ITS 350		
ENGR 424 - Machine Learning	3	ITS 350		
ENGR 483 - Robotics	3	Co-requisite: ENGR 461, Pre-requisite: ENGR 348		
Engineering / IT / SE Elective	3	See course description		
Total Credits	15			
9th Semester				
Core Elective	3	See course description		
Summer/Winter				
ENGR 490 - Engineering Internship	1	Senior Standing (to be taken alone)		
Program Total Credits	127			
Program Credits				
Core	44 Credits (14 Courses)			
Major	73 Credits (25 Courses)			
Engineering Elective	9 Credits (3 Courses)			
Total	126 Credits (42 Courses)			

General Tips and Recommendations

AI and Robotics Engineering electives are 200+ courses in either the Engineering or Computing and Informatics Department.

Varied Degree Paths:

Student degree paths may vary slightly from this form. If academic record differs from the courses listed in this form, please contact the Registration and Records Office during the advising week for clarification. Independent study, transfer credits or other unique circumstances are typically accounted for in the elective category.