

ROBOTICS/MECHATRONICS TECHNOLOGY DEGREE – M307

Associate of Applied Science (AAS)

CATALOG DESCRIPTION OF PROGRAM:

The Robotics/Mechatronics Technology Program trains students to be robotics, automation, manufacturing, electronics technicians who can program, troubleshoot, and repair robots and mechatronics devices in different applications. A robotics/ mechatronics technician is a highly skilled person who works with industrial/manufacturing specialists in the rapidly expanding and dynamic industry of automated manufacturing. The robotics/ mechatronics student receives extensive training in electronics, computer controls, data acquisition, mechanical controls, pneumatics, electrical power, motors, and hydraulics relative to industrial robots and mechatronics. The graduates of the Robotics/ Mechatronics Technology Program can also transfer to Morgan State University and Capitol College to pursue BS degrees in Engineering or Engineering Technology.

COURSE	CURRENT SEQUENCE	CREDITS	PREREQUISITES	SEMESTER	GRADE
1st Semester					
PRE 100	Preparation for Academic Achievement	1	None		
SP 101	Fundamentals of Speech Communication	3	ENG 82 or RENG 92		
ELC 120	DC Circuit Analysis	3	MAT 92		
MAT 127	College Algebra and Trigonometry	4	MAT 92; RENG 92		
RBT 105	Introduction to Robotics/Mechatronics	4	None		
HLF-Elective	Health and Life Fitness	1	None		
Semester Credits		16			
2nd Semester					
ELC 121	AC Circuits Analysis	3	ELC 120		
ENG 101	English Writing	3	ENG 82 or RENG 92		
CLT 100	Computer Literacy	2	None		
HLF-Elective	Health and Life Fitness	1	None		
MAT 107	Modern Elementary Statistics	3	MAT 86 or MAT 91; RENG 92		
Semester Credits		12			
3rd Semester					
PHY 101	Fundamentals of Physics I	4	MAT 127 or MAT 128; ENG 82 or RENG 92		
RBT 150	Computer Assisted Manufacturing (CAM)	4	RBT 105		
ELC 256	Digital Fundamentals and Circuits	3	ELC 120		
EGN 101	Engineering Graphics	3	MAT 127 or MAT 128		
ECO 201	The American Economy I: Macroeconomic Theory	3	ENG 82 or RENG 92		
Semester Credits		17			
4th Semester					
RBT 204	Robotics Applications and Programmable Logic Controllers (PLCs)	3	EGN 101, RBT 150 and ELC 256		
RBT 206	Robotics Applications and Programmable Logic Controllers (PLCs) Lab	1	RBT 105		
RBT 205	Mechatronics: Principles and Applications	4	RBT 150; ELC 256		
CADD 208	CADD Mechanical Applications	3	CADD 105		
BPS-Elective	Biological & Physical Sciences with lab	4	Depends on course chosen		
Semester Credits		15			
PROGRAM TOTAL		60			

Advisor Signature: _____

Date: _____

Student Signature: _____

Date: _____

Pre-Requisites for Students in Developmental Courses

COURSE	CURRENT SEQUENCE	CREDITS	PREREQUISITES	SEMESTER	GRADE
RENG 90	Intensive Program Writing	4 hrs.	Placement Test		
RENG 91	Composition Skills I	4 hrs.	Placement Test or RENG 90		
RENG 92	Composition Skills II	4 hrs.	Placement Test or RENG 91		
MAT 80	Arithmetic	3 hrs.	Placement Test		
MAT 86/	Integrated Pre-Algebra and Introductory Algebra	5 hrs.	Placement Test or MAT 80 Students who complete MAT 80 with an A or B within a one year period; Students who recently (within one year) failed and need to repeat MAT 91; students whose ACUPLACER placement score on Elementary Algebra falls within the range 52-62.		
MAT 87M	Integrated Elementary and Intermediate Algebra				
MAT 91	Elementary Algebra	4 hrs.	Placement Test or MAT 80		
MAT 92	Intermediate Algebra	4 hrs.	Placement Test or MAT 91		