



ASSOCIATE OF APPLIED SCIENCE

**AUTOMATION AND ROBOTICS TECHNOLOGY**

*The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.*

2021 Catalog  
Effective Summer 2020

**4556**

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST221	Mechanical Drive Components	3		
IET223	Computer Numerical Control	4		
AIT139	Introduction to Robotics	2		
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 or Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co- MTH135) and EET120	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
AIT220	Industrial Robotics	4	AIT139	
AIT226	Robotic Vision	2	AIT220	
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122	
	<b>Total</b>	<b>32</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE229	.Net Development	3	CSE122	
DET125	Basic AutoCAD	3		
NET120	PC Upgrading and Maintenance	3		
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
PHL122	Ethics	3		
	<b>Total</b>	<b>31</b>		
	<b>TOTAL CREDIT HOURS</b>	<b>63</b>		

^Based on SSC placement scores

^^To promote student success, this course should be taken in the first semester

FULL-TIME STUDENT ADVISING NOTES

Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)
MST221	Mechanical Drive Components	3	
MTH135	Precalculus^ – <i>A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.</i>	5	MTH025 <b>or</b> Proficiency
ENG124	College Composition^	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
		<b>15</b>	
<u>Second Semester</u>			
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135
DET125	Basic AutoCAD	3	
AIT139	Introduction to Robotics	2	
CSE229	.Net Development	3	CSE122
ENG221	Technical Report Writing	<u>3</u>	ENG124
		<b>15</b>	
<u>Third Semester</u>			
AIT220	Industrial Robotics	4	AIT139
IET223	Computer Numerical Control	4	
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) <b>and</b> EET120
NET120	PC Upgrading and Maintenance	<u>3</u>	
		<b>18</b>	
<u>Fourth Semester</u>			
AIT221	Advanced CNC Programming	3	IET223 <b>or</b> ARL121 <b>or</b> ARL122
AIT226	Robotic Vision	2	AIT220
EET228	PLCs and Industrial Controls II	3	EET227
PHL122	Ethics	3	
PHY121	College Physics I with Algebra (lab)^	<u>4</u>	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency
		<b>15</b>	
	<b>TOTAL CREDITS</b>	<b>63</b>	

^Based on SSC placement scores

^^To promote student success, this course should be taken in the first semester