



ASSOCIATE OF APPLIED SCIENCE

**INDUSTRIAL TECHNOLOGY – ADVANCED  
MANUFACTURING TECHNOLOGY MAJOR**

*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.*

2021-22 Catalog

Effective Summer 2021

**4353**

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT122	Machine Tools	4		
IET223	Computer Numerical Control	4		
AIT221	Advanced CNC Programming	3	IET223 <b>or</b> ARL121 <b>or</b> ARL122	
AIT139	Introduction to Robotics	2		
AIT220	Industrial Robotics	4		
AIT226	Robotic Vision	2	AIT220	
IET270	Dimensional Metrology and Inspection I <sup>^</sup>	3	(MTH025 or Proficiency) <b>or</b> MTH107	
MST134	Hydraulic and Pneumatic Systems <sup>^</sup>	4	MTH022 <b>or</b> MTH023 <b>or</b> Proficiency	
MST221 <b>or</b> MET225	Mechanical Drive Components <b>or</b> Manufacturing Processes	3 <b>or</b> 3		
<b>Total</b>		<b>29</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar <sup>^^</sup>	1	<i>Take first semester</i>	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 <b>or</b> Proficiency	
DET125 <b>or</b> AIT137	Basic AutoCAD <b>or</b> CAD/CAM	3 <b>or</b> 4	AIT122 <b>and</b> IET223	
MST121	Blueprint Reading	2		
PHY101	Principles of Physics <sup>^</sup>	4	(MTH024 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH107 <b>and</b> (IDS102 <b>or</b> Proficiency)	
MTH107	Industrial Math <sup>^</sup>	3	(MTH021 or Proficiency) <b>or</b> Pre- Co-MTH007	
EST230	Electrical Circuits and Devices <sup>^</sup>	4	(MTH025 or Proficiency) <b>or</b> MTH107	
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
COM121 <b>or</b> COM123	Effective Speaking <b>or</b> Small Group Communication <sup>^</sup>	3 <b>or</b> 3	IDS102 <b>or</b> Proficiency	
IET121	Industrial Management Concepts	2		
	<i>Select one (1) course of Arts &amp; Humanities and/or Social &amp; Behavioral Sciences Elective from the list below.<sup>1</sup></i>	3	<i>Check for prerequisites</i>	
<b>Total</b>		<b>31-32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>60-61</b>		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>1</sup>Arts & Humanities and/or Social & Behavioral Sciences Electives: ENG233, ENG234, ENG236, ENG237, PHL122, any HIS course, any SOC course, or any PSY course.

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### 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 <sup>^</sup>	1	<i>Take first semester</i>
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 <b>or</b> Proficiency
AIT139	Introduction to Robotics	2	
AIT122	Machine Tools	4	
MST121	Blueprint Reading	2	
MTH107	Industrial Math <sup>^</sup>	<u>3</u>	(MTH021 or Proficiency) <b>or</b> Pre-Co-MTH007
		<b>15</b>	
<u>Second Semester</u>			
MST221	Mechanical Drive Components	3	
<b>or</b>	<b>or</b>	<b>or</b>	
MET225	Manufacturing Processes	3	
IET223	Computer Numerical Control	4	
IET270	Dimensional Metrology and Inspection I <sup>^</sup>	3	(MTH025 or Proficiency) <b>or</b> MTH107
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
AIT220	Industrial Robotics	<u>4</u>	
		<b>17</b>	
<u>Third Semester</u>			
PHY101	Principles of Physics <sup>^</sup>	4	(MTH024 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH107 <b>and</b> (IDS102 <b>or</b> Proficiency)
DET125	Basic AutoCAD	3	
<b>or</b>	<b>or</b>	<b>or</b>	
AIT137	CAD/CAM	4	AIT122 <b>and</b> IET223
EST230	Electrical Circuits and Devices <sup>^</sup>	4	(MTH025 or Proficiency) <b>or</b> MTH107
COM121	Effective Speaking	3	
<b>or</b>	<b>or</b>	<b>or</b>	
COM123	Small Group Communication <sup>^</sup>	3	IDS102 <b>or</b> Proficiency
		<b>14-15</b>	
<u>Fourth Semester</u>			
IET121	Industrial Management Concepts	2	
AIT221	Advanced CNC Programming	3	IET223 <b>or</b> ARL121 <b>or</b> ARL122 AIT220
AIT226	Robotic Vision	2	
MST134	Hydraulic and Pneumatic Systems <sup>^</sup>	4	MTH022 <b>or</b> MTH023 <b>or</b> Proficiency
<i>Arts &amp; Humanities and/or Social &amp; Behavioral Sciences Elective<sup>1</sup></i>		<u>3</u>	<i>Check for prerequisites</i>
		<b>14</b>	
<b>TOTAL CREDITS</b>		<b>60-61</b>	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>1</sup>Arts & Humanities and/or Social & Behavioral Sciences Electives: ENG233, ENG234, ENG236, ENG237, PHL122, any HIS course, any SOC course, or any PSY course.