

 	<p style="text-align: center;">ASSOCIATE OF APPLIED SCIENCE</p> <p style="text-align: center;">INDUSTRIAL TECHNOLOGY</p> <p style="text-align: center;"><i>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.</i></p>	<p style="text-align: center;">2023-24 Catalog</p> <p style="text-align: center;">Effective Summer 2023</p> <p style="text-align: center; font-size: 2em;">4300</p>
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Business, Engineering, and Information Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT101	Basic Machines	2		
MST121	Blueprint Reading	2		
MST134	Hydraulic and Pneumatic Systems [^]	4	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices [^]	4	(MTH025 or Proficiency) or MTH107	
IET270	Dimensional Metrology and Inspection I [^]	3	(MTH025 or Proficiency) or MTH107	
AIT139	Introduction to Robotics	2		
MST125	Basic Pumps	3		
MET225	Manufacturing Processes	3		
TECHNICAL ELECTIVES: 7 credit hours minimum (typically 2 to 3 classes)				
	See Technical Elective list below. ² ##	7	Check for prerequisites	
	Total	33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar ^{^^}	1	Take first semester	
ITD122	Computer Applications for Professionals [^]	3	ITD100 or Proficiency	
PHY101	Principles of Physics [^]	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
MTH107	Industrial Math [^]	3	(MTH021 or Proficiency) or Pre-Co-MTH007	
ENG124	College Composition [^]	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121 or COM123	Effective Speaking or Small Group Communication [^]	3 or 3	IDS102 or Proficiency	
IET121	Industrial Management Concepts	2		
MET123	Material Science	3		
	Select two (2) courses of Arts & Humanities and/or Social & Behavioral Sciences Electives from the list below. ¹	6	Check for prerequisites	
	Total	31		
TOTAL CREDIT HOURS		64		

[^]Based on SSC placement scores

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

¹ Arts & Humanities and/or Social & Behavioral Sciences Electives: any course with the following catalog entry: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122, SOC, PSY

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² Technical Electives: see next page

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TECHNICAL ELECTIVES: 7 credit hours minimum from the list below.				
Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT103	Non-Destructive Testing	2		
AIT122	Machine Tools	4		
AIT123	Advanced Machine Tools	4	AIT122	
IET223	Computer Numerical Control	4		
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122	
AIT124	Principles of Rigging	2		
AIT125	Commercial Plumbing	3		
AIT220	Industrial Robotics	4		
DET125	Basic AutoCAD	3		
MST136	3G and 4G Welding Cert Exam Preparatory	4	MST127	
MST137	6G Welding Cert Exam Preparatory	4	MST136	
MST138	Preparatory Gas Tungsten Arc Welding	4	MST127	
MST139	Gas Tungsten Arc Welding	3	MST138	
CDL121	CDL - Class A – Safe Operation and Control ##	6		
CDL122	CDL - Class A – Advanced Operations and Maintenance	6	CDL121	
MST126	Pipefitting Principles & Applications	3		
MST127	Principles of Welding	6		
AIT137	CAD/CAM	4	AIT122 and IET223	
AIT134	Preventive and Predictive Maintenance	3		
MST135	Plumb and Pipe Code Principles	3		
EET123	Electronic Devices and Circuits	4	EET120 or EST230	
EET227	PLC's and Industrial Controls I	3	EET120 or EST230	
ETD225	Engineering Special Topics	1		
ETD226	Engineering Special Topics	2		
ETD227	Engineering Special Topics	3		
ETD228	Engineering Special Topics	4		
ETD229	Engineering Special Topics	5		
MST227	Metallic Inert Gas Welding	3	MST127	
ABC110	Electrical Applications I	6		
ABC120	Electrical Applications II	5		
PIP110	Plumbing/Pipefitting Applications I	6		
PIP120	Plumbing/Pipefitting Applications II	6		
PIP130	Plumbing/Pipefitting Applications III	6		
PIP140	HVAC Systems Operations I	6		
PIP150	HVAC Systems Operations II	6		

^Based on SSC placement scores

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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- or Co-requisites</u>
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>
AIT101	Basic Machines	2	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH107	Industrial Math^	3	(MTH021 or Proficiency) or Pre-Co-MTH007
IET270	Dimensional Metrology and Inspection I^	<u>3</u>	(MTH025 or Proficiency) or MTH107
		15	
<u>Second Semester</u>			
MST121	Blueprint Reading	2	
MST134	Hydraulic and Pneumatic Systems^	4	MTH022 or MTH023 or Proficiency
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107
IET121	Industrial Management Concepts	2	
MET123	Material Science	<u>3</u>	
		15	
<u>Third Semester</u>			
ENG221	Technical Report Writing	3	ENG124
PHY101	Principles of Physics^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)
COM121	Effective Speaking	3	
or	or	or	
COM123	Small Group Communication^	3	IDS102 or Proficiency
AIT139	Introduction to Robotics	2	
MET225	Manufacturing Processes	3	
<i>Arts & Humanities and/or Social & Behavioral Sciences Elective¹</i>		<u>3</u>	<i>Check for prerequisites</i>
		18	
<u>Fourth Semester</u>			
MST221	Mechanical Drive Components	3	
<i>Technical Electives² ##</i>		7	<i>Check for prerequisites</i>
MST125	Basic Pumps	3	
<i>Arts & Humanities and/or Social & Behavioral Sciences Elective¹</i>		<u>3</u>	<i>Check for prerequisites</i>
		16	
TOTAL CREDITS		64	

^Based on SSC placement scores

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

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¹Arts & Humanities and/or Social & Behavioral Sciences Electives: ENG 233, ENG234,ENG236, ENG237, HIS121, HIS122, PHL122, SOC, PSY

²Technical Electives: see previous page