



# ENGINEERING TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE

4300

## APPLIED INDUSTRIAL TECHNOLOGY

Course Number	Course Title	Credits	Completed Sem./Year
MST121	Blueprint Reading	2	
**MST134	Hydraulic & Pneumatic Systems	6	
MST221	Mechanical Drive Components	3	
EST130	Electrical Circuits and Devices	4	
IET228	Introduction to Robotics	2	
MET123	Material Science	2	
MET225	Manufacturing Processes	3	
IET121	Industrial Management Concepts	2	
ETD121	Engineering Technology Seminar	1	
<i>(Subtotal)</i> 25			

Select at least 13 credit hours (typically 3 to 4 classes) from the following **TECHNICAL ELECTIVES**:

TECHNICAL ELECTIVES Course Number	Course Title	Credits	Completed Sem./Year	TECHNICAL ELECTIVES Course Number	Course Title	Credits	Completed Sem./Year
AIT122	Machine Tools	3		MST127	Principles of Welding	3	
AIT123	Advanced Machine Tools	4		MST128	Welding Lab	3	
IET223	CNC	4		MST131	Statistical Process Control Charts	2	
AIT221	Advanced CNC Programming	3		MST133	Press Working Fundamentals	2	
AIT124	Principles of Rigging	2		MST225	DC Crane Control	1	
AIT125	Commercial Plumbing	3		AIT137	CAD/CAM	4	
AIT126	Industrial Electrical Applications and Safety	2		AIT225	Advanced CAD/CAM	4	
AIT135	Industrial Robotics	4		AIT130	Structural/Maintenance Welding	3	
IET270	Dimensional Metrology & Inspection I	3		AIT134	Predictive & Preventative Main. I	3	
DET125	Basic AutoCAD	3		AIT222	Predictive & Preventative Main. II	3	
MST136	3G Cert. Preparatory	2		HVC124	Mobile Cab Climate Control	2	
MST137	6G Cert. Preparatory	5		AET121	Sustainable/Alternative Energy Sources	3	
MST138	Preparatory Gas Tungsten Arc Welding	5		AET122	Analysis/Appl. Of Sustain/Alter. Energy	3	
MST139	Gas Tungsten Arc Welding Titanium/Stainless Steel	3		AET123	Sustainable/Alternative Energy Systems	3	
				AET124	Sustainable/Alternative Energy Project	3	
MST124	Furnace Combustion Principles	1		AIT131	Electrical Applications and Safety	2	
MST135	Plumbing & Pipe Code Principles	3		AIT133	Advanced Electrical Applications and Safety	2	
MST125	Basic Pumps	3		EST133	Digital Logic Fundamentals	4	
MST126	Pipefitting Principles & Applications	4		EST134	Programmable Controller Fundamentals	4	
<i>Subtotal (from Technical Courses &amp; Technical Electives)</i>							<b>13</b>

Course Number	Course Title	Credits	Completed Sem./Year
ECA122	Computer Applications for Technical Professionals	3	
PHY121	Physics I	4	
MTH101	Introduction to Algebra	4	
MTH125	College Algebra	4	
MTH128	Trigonometry	1	
<i>Subtotal</i>			<b>16</b>

Course Number	Course Title	Credits	Completed Sem./Year
ENG124	College Composition	3	
ENG221	Technical Report Writing	3	
COM121/COM123	Effective Speaking or Inter-group Communications	3	
	Select one (1) Arts/Humanities/Social Science elective from the list below.	3	
<i>Subtotal</i>			<b>12</b>
<i>Hours</i>		<b>TOTAL</b>	<b>66</b>

FULL-TIME STUDENT - ADVISING NOTES

1. ACADEMIC ADVISING - Each student should make an appointment to see their advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this meeting.
2. COURSE SEQUENCE - The semester-by-semester listing below gives the normal scheduling option for full-time associate degree students who plan to finish in two years. Some courses can be scheduled as beginning courses in other semesters depending upon course availability and advisor's recommendation. Introduction to Algebra should be scheduled before College Algebra and Trigonometry by those whose preadmission test indicates the need for it. Introduction to Algebra and selected technical and general studies courses are available summer term.
3. TECHNICAL ELECTIVES - Some programs provide for technical electives. Consult with your academic advisor to determine course availability.
4. BACHELOR'S DEGREE - In most of the associate degree programs, some courses may be applied toward a bachelor's degree in technology. Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer. Please inform your advisor if you plan on completing a four-year degree after your SSCT engineering technology degree.

APPLIED INDUSTRIAL TECHNOLOGY

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
ECA122	Computer Applications for Technical Professionals	3	-
MTH101	Introduction to Algebra	4	Test
ENG124	College Composition	3	ENG105 or Test
MET123	Material Science	2	-
MST121	Blueprint Reading	2	-
ETD121	Engineering Technology Seminar	<u>1</u>	-
		15	
<u>Second Semester</u>			
MTH125	College Algebra	4	MTH101 or MTH103 or Test
MTH128	Trigonometry	1	Co- MTH125
** MST134	Hydraulic & Pneumatic Systems	6	MTH101
EST130	Electrical Circuits and Devices	4	MTH101
IET121	Industrial Management Concepts	2	-
		17	
<u>Third Semester</u>			
ENG221	Technical Report Writing	3	ENG124
PHY121	Physics I	4	MTH125, MTH128
COM121/COM123	Effective Speaking or Inter-group Communications	3	ENG124
IET228	Introduction to Robotics	2	-
MET225	Manufacturing Processes	<u>3</u>	-
		15	
<u>Fourth Semester</u>			
MST221	Mechanical Drive Components	3	-
	Arts/Humanities/Social Science Elective	3	-
	Technical Electives	<u>13</u>	-
		19	
<b>TOTAL CREDITS</b>		<b>66</b>	

\*\*Also can be taken as two 8-week courses: MST122 Hydraulic & Pneumatic Principles and MST123 Hydraulic & Pneumatic Applications

**Arts/Humanities/Social Science Electives:** PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121