

 	<b>ONE-YEAR CERTIFICATE</b> <b>AUTOMATION AND ROBOTICS</b> <b>TECHNOLOGY</b> <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>	<b>2025-26 Catalog</b> Effective Summer 2025  <div style="font-size: 2em; font-weight: bold;">4555</div>
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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
AIT121	Industrial Internet of Things (IIoT)	3		
AIT139	Introduction to Robotics	2		
AIT220	Industrial Robotics	4		
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 or Pre-Co-MTH135	
EET227	PLCs and Industrial Controls I	3	EST230 or EET120	
<b>TECHNICAL ELECTIVES: 3 credit hours minimum</b>				
MST221	Mechanical Drive Components	3		
EET228	PLCs and Industrial Controls II	3	EET227	
IET223	Computer Numerical Control	4		
<b>Total</b>		<b>19-20</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MST121 or DET125	Blueprint Reading or Basic AutoCAD	2 or 3		
CSE122	Programming Logic & Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 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	
<b>Total</b>		<b>11-12</b>		
<b>TOTAL CREDIT HOURS</b>		<b>30-32</b>		

^Based on SSC placement scores.

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

*Students completing this degree may be eligible to also receive an Industrial Technology – Automation and Robotics Specialist Career Enhancement Certificate (4554).*

*The classes in this certificate also apply toward the completion of an Automation and Robotics Technology Degree (4556).*

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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 students seeking a one-year certificate.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisite</u>
SSC101	Student Success Seminar^^	1	<i>Take first semester</i>
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency
AIT139	Introduction to Robotics	2	
AIT121	Industrial Internet of Things (IIoT)	<u>3</u>	
		<b>11</b>	
<u>Second Semester</u>			
AIT220	Industrial Robotics	4	
MST121	Blueprint Reading	2	
<b>or</b>	<b>or</b>	<b>or</b>	
DET125	Basic AutoCAD	3	
EET120	DC Circuit Analysis	<u>4</u>	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135
		<b>10-11</b>	
<u>Third Semester</u>			
EET227	PLCs and Industrial Controls I	3	EST230 <b>or</b> EET120
CSE122	Programming Logic & Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> <b>(ITD100 or Proficiency)</b>
<i>Technical Elective<sup>1</sup></i>		<u>3-4</u>	<i>Check for prerequisites</i>
		<b>9-10</b>	
	<b>TOTAL CREDITS</b>	<b>30-32</b>	

^Based on SSC placement scores.

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

<sup>1</sup>Technical Electives: EET228, IET223, MST221