



Academic & Career PATHWAYS

Associate of Applied Science (A.A.S.)

Industrial Technologies – Instrumentation & Controls Advising Guide

If you enjoy always learning new technology and hands on learning, careers in the industrial technology program will prepare you for jobs related to the repair and installation of automation, robotics and programming of machines in manufacturing, energy and utilities.

Complete all the courses below to earn the A.A.S degree.

	Course	Degree Requirements Met	Credits	Action Steps
Semester 1				
☐	ENGL 101 Composition & Reading I	General Education Requirement	3	▪ Meet with Student Success Advisor to build degree plan
☐	COMM 100 Fundamentals of Speech	General Education Requirement	3	
☐	INTE 112 Industrial Electrical DC Principles	Program Requirement	2	
☐	INTE 113 Industrial Electrical AC Principles	Program Requirement	2	
☐	EHSS 111 Intro to Health & Safety	Program Requirement	1	
☐	MATH 102 Technical and Business Math OR MATH 120 College Algebra Choose one	Mathematics Requirement	3	
☐	CSIS 110 Information Technology Fundamentals	Program Requirements	3	
			17	
Semester 2				
☐	INTE 107 Industrial Electrical Safety	Core Program Requirement	3	▪ Meet with Student Success Advisor
☐	INTE 115 Electrical Print Reading	Core Program Requirement	3	
☐	INTE 175 Electric Motor Controls I	Core Program Requirement	3	
☐	ENGL 215 Technical Writing OR SPAN 100 Beginning Occupational Spanish Choose one	General Education Requirement	3	
☐	MATH 130 Trigonometry, MATH 104 Technical Mathematics II OR MATH 150 PreCalculus or higher Choose one	Mathematics Requirement	3-5*	
Total Semester Credits			15-17	



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Semester 3				
☐	INTE 270 Instrumentation and Process Controls	Program Requirement	3	- Meet with Student Success Advisor - Meet with Career Center
☐	INTE 271 Programmable Logic Controller I	Program Requirement	4	
☐	CSIS 123 Programming Fundamentals	Program Requirement	3	
☐	INTE 140 Fundamentals of Industrial Machine Repair	Core Program Requirement	3	
☐	HIST 120 United States History to 1865 HIST 121 United States History since 1865 OR POLS 136 Introduction to U.S. National Politics Choose one	Civics Requirement	3	Complete Civics Exam with 70% or higher
Total Semester Credits			16	
Semester 4				
☐	INTE 272 Programmable Logic Controller II	Program Requirement	3	- Meet with Student Success Advisor Apply for Graduation - Apply for jobs
☐	INTE 276 Electrical and PLC Troubleshooting	Program Requirement	4	
☐	INTE 279 Networking for Automated Systems	Program Requirement	3	
☐	INTE 280 HMI for the PLC	Program Requirement	4	
☐	Elective Any course numbered 100 or higher from the following disciplines: ART, ANTH, COMM, ECON, EyeNGL, FOREIGN LANGUAGE, GEOG (Except 104, 110 or GIS Courses), HIST, HUMN, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, THEA	Program Requirement	3-5*	
Total Semester Credits			16 - 18	
Credits Required for A.A.S. Degree			63 - 66	
<i>*The A.A.S. in Industrial Technologies - Instrumentation and Controls requires a minimum of 63 - 66 total credits to graduate. When selecting a course from multiple options, please consider the number of credits for each course to ensure meeting the minimum requirements for graduation.</i>				

This Pathway Map is an advising tool designed for full-time students and identifies the course recommendations for timely degree completion. All pathway maps can be modified to fit the individual needs of students. All students are encouraged to meet with their success advisor to develop an individualized completion plan that best meets their goals, interests, and objectives. Degree requirements and prerequisite information can be found here: [Industrial Technologies - Industrial Maintenance](#)

Please note:

Courses may require a prerequisite or appropriate placement, see the [Academic Catalog](#) for additional information.