Industrial Technician AAS

Associate of Applied Science Degree

NOTE: This program is in moratorium and will not be accepting new students.

The Industrial Technician Associate of Applied Science degree program prepares graduates for technician jobs in industry related fields. Program graduates have general skills in industrial safety, electrical troubleshooting, hydraulic and pneumatic system operation, and mechanical system repair. They also have specialized skills in programmable logic controls, digital electronics, automatic process controls, metals technology, and industrial robots. These specialized skills are built on a strong educational foundation in math, writing, and communications.

For more information on other programs in this field, visit the catalog pages for the Industrial Technician CAS (http://catalog.gfcmsu.edu/academic-programs/industrial-technician-cas/) and the Renewable Energy Technician AAS (http://catalog.gfcmsu.edu/academic-programs/renewable-energy-technician/).

Outcomes

Graduates are prepared to:

- Identify and practice safe workplace habits.
- Demonstrate familiarity with basic electrical tools and the ability to troubleshoot a basic electrical system.
- Demonstrate familiarity with basic mechanical tools and the ability to repair a basic mechanical system.
- Demonstrate a basic understanding of hydraulic and pneumatic systems.
- Demonstrate the ability to use personal computers and common operating systems and applications software.
- Develop and practice professional standards of workplace communication and interpersonal skills.
- Demonstrate a basic understanding of AC and DC variable speed motor drives.
- Demonstrate a basic understanding of programmable logic controllers.
- Demonstrate a basic understanding of digital electronics.
- Demonstrate an understanding of college-level algebra.
- Demonstrate an understanding of motor control circuits and how they operate.
- Demonstrate a basic understanding of how industrial process controls are used.
- Demonstrate familiarity with industrial robotic control and programming.
- Identify and use specific tooling used in machining process.
- Demonstrate basic welding procedures using SMAW and GMAW techniques.

Estimated Cost

Estimated Resident Program Cost*

Tution and Fees	$6,835
Program Fee	$1,000
Books/Supplies	$1,691
Total	$9,557

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Fall 2023 MUS Student Health Insurance Premiums may be changing. Please check the Health Insurance website **(**http://students.gfcmsu.edu/insurance.html**) and/or Student Central for confirmed premium rates. Students will be charged an additional fee of $21 per credit for online/hybrid courses for only Summer 2023.**

Program Requirements

Many students need preliminary math and writing courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and writing placement before planning out their full program schedules.

Course	Title	Credits	Grade/Sem
First Year			
Fall			
Upon completion of the 1st and 2nd semesters, students are eligible to apply for the Industrial Technician Certificate of Applied Science.			
ECP 100	First Aid and CPR +	1	
ELCT 120	Basic Industrial Controls *,+	3	
ETEC 101	AC/DC Electronics I *,+	3	
NRGY 120	Industrial Safety and Rigging *,+	3	
NRGY 130	Fundamentals of Mechanical Systems *,+	3	
Select one of the following:			
M 105	Contemporary Mathematics **,+	3	
M 151	Precalculus **,+	4	
M 121	College Algebra **,+	3	
M 171	Calculus I **,+	4	
	Credits	**16-17**	
Spring			
COMX 115	Introduction to Interpersonal Communication +	3	
ETEC 103	AC/DC Electronics II *,+	3	
ELCT 130	Electric Motors and Generators +	3	
MCH 130	Machine Shop +	3	
NRGY 110	Fundamentals of Hydraulic/Pneumatic Systems +	3	
WRIT 104	Workplace Communications +	2	
	Credits	**17**	
Second Year			
Fall			
CAPP 131	Basic MS Office +	3	
ETEC 220	Electrical Power and Distribution I *,+	3	
ETEC 231	Electronic Drive Systems *,+	3	
ETEC 245	Digital Electronics *,+	4	

ELCT 250	Programmable Logic Controllers *,+	3	_____
	Credits	**16**	
Spring			
CAPP 156	MS Excel *,+	3	_____
ETEC 234	Automatic Controls *,+	4	_____
ETEC 236	Intro to Industrial Robotics *,+	3	_____
WLDG 100	Intro to Welding Fundamentals +	3	_____
	Credits	**13**	
	Total Credits	**62-63**	

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A grade of C- or above is required for graduation.

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Indicates prerequisites needed.

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Placement in course(s) is determined by placement assessment.