AUTOMATION ENGINEERING TECHNOLOGY - SYSTEMS SPECIALIST MAJOR, ASSOCIATE OF APPLIED SCIENCE

Curriculum Code #6211

Effective May 2024

Division of Engineering, Business and Information Technologies (http:// catalog.lorainccc.edu/academic-programs/engineering-businessinformation-technologies/)

Integration is a key word in advanced technologies: combining different automated equipment, such as robots, into coordinated systems that complete specific tasks like loading/unloading machines, sorting, inspecting, and assembling parts. The automation engineering technology degree will train students to be a systems specialist. Concentration of abilities for installing and operating robots and other industrial material handling and processing technologies, as well as engineer and program equipment for systems integration. Graduates go on to become a systems design technician, factory sales/service representative, applications engineer, installation supervisor, systems integrator or production supervisor. Lorain County Community College has articulation agreements with colleges and universities including programs offered by Lorain County Community College's University Partnership.

First Year

Fall Semester		Hours
AETC 115	INDUSTRIAL ROBOTICS I	3
CADD 111	INTRODUCTION TO COMPUTER AIDED DRAFTING ¹	2
ELCT 111	ELECTRICAL CIRCUITS I	3
MTHM 155	TECHNICAL MATHEMATICS I	4
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ³	1
TECN 111	TECHNICAL PROBLEM SOLVING	3
	Hours	16
Spring Semester		
AETC 121	PROGRAMMABLE LOGIC CONTROLLERS	3
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 168	STATISTICS	3
TECN 121	FLUID POWER SYSTEMS ¹	3
TECN 133	MECHANICAL SYSTEMS	3
	Hours	15
Second Year		
Fall Semester		
AETC 211	WORKCELL INTERFACING ²	3
AETC 223	PROGRAMMABLE LOGIC CONTROLLERS II 2	3
AETC 287	WORK-BASED LEARNING I - AETC ²	1

	Total Hours	65
	Hours	17
Social Sciences Elective(s) ⁵		
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS	3
ELCT 211	ELECTRICAL POWER AND DEVICES ²	4
AETC 288	WORK BASED LEARNING II - AETC ²	1
AETC 231	FLEXIBLE MANUFACTURING SYSTEMS ²	3
AETC 215	INDUSTRIAL ROBOTICS II ²	3
Spring Semeste	r	
	Hours	17
Arts and Humanities Elective(s) ⁴		
TECN 131	MANUFACTURING PROCESSES I ¹	3
PHYC 150	GENERAL PHYSICS I ²	4

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1

Indicates that this course has a prerequisite or may be taken concurrently.

2

Indicates that this course requires a prerequisite.

3

A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 13 or more credit hours.

4

Select any Arts and Humanities Ohio Transfer 36 (http:// catalog.lorainccc.edu/academic-information/transfer-modulerequirements/) course.

5

Select any Social Science Ohio Transfer 36 (http://catalog.lorainccc.edu/ academic-information/transfer-module-requirements/) course.

Program Contact(s):

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For information about admissions, enrollment, transfer, graduation and other general questions, please contact your advising team (https://www.lorainccc.edu/admissions-and-enrollment/advising-andcounseling/).

More program information can be found on our website. (https://www.lorainccc.edu/engineering/ automation-engineering/associate-of-applied-sciencein-automation-engineering-technologies-systemsspecialist/)

Credit for Prior Learning (PLA) options may be available for your program. For more information, please visit our website: www.lorainccc.edu/PLA (http://www.lorainccc.edu/PLA/)

Program Learning Outcomes

1. Demonstrate the programing of robots and programmable controllers to industry standards.

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- 2. Program automated systems involving programmable controllers, networking, a human machine interface, and motion control.
- 3. Apply current standards of communication between various industrial equipment (eg. Voltage conversions, isolation techniques...)
- 4. Design, construct, and program a functional flexible manufacturing system.