



Industrial Machine Maintenance (IMM)

Credential: Certificate in Industrial Maintenance
Certificate in Automated Electrical Systems

Program Description:

EC3's industrial machine maintenance program is suitable for those with no previous experience, and for those who seek specialization or skills upgrade. The program will build strong troubleshooting and problem-solving skills while participants gain foundational skills in the fields of electricity, automation, mechanical systems, pneumatics, and hydraulics.

Labor Market Need

The Bureau of Labor Statistics projects employment of industrial machinery mechanics and machinery maintenance workers to grow 19 percent from 2020-2030. 93% of the jobs in this field require an associate degree or less, but at least 42.3% of those require more than a high school diploma. The median salary in Erie County is \$51,714 (source: EMSI Q1 2022 Data Set www.economicmodeling.com.)

COURSE NUMBER	COURSE TITLE	CREDITS
MAT 107	Technical Math I	3
IMM 102	Electrical Control Circuits	3
IMM 103	Electrical Motor Control	3
IMM 104	Hydraulics: Fluid Power Systems	3
IMM 105	Pneumatics: Air Power Systems	3
IMM 110	Basic Mechanical Drives	3
IMM 112	Programmable Controllers I	3
IMM 113	Programmable Controllers II	3

CERTIFICATE TOTAL: 24

Certificate in Industrial Maintenance

This certificate is designed for students with or without prior knowledge or experience.

Certificate in Automated Electrical Systems

This certificate is designed for students with strong prior knowledge and/or experience with electrical motor control. Student wishing to enroll in this certificate must meet with faculty to obtain instructor consent or first complete IMM 102 and IMM 103.

COURSE NUMBER	COURSE TITLE	CREDITS
IMM 112	Programmable Controllers I	3
IMM 113	Programmable Controllers II	3
IMM 114	Advanced Programmable Controllers	3

CERTIFICATE TOTAL: 9

How Much: Currently, Erie County residents will have tuition covered by the EC3 Empowerment Grant, but that funding will not last forever. While tuition is free, students are still responsible for applicable fees.

STANDARD TUITION

RESIDENCY	TUITION COST	CAPITAL FEE	TOTAL COST PER CREDIT HOUR
Erie County Resident	\$160	\$0	\$160
Out-of-Erie County, In-State of PA	\$320	\$5	\$325
Non-PA Resident	\$480	\$10	\$490

FEES (assessed upon registration)	COST	COST PER 3-CREDIT COURSE
New Student Fee (one-time)	\$40	\$0
General Fee	\$15	\$45
Technology Fee	\$10	\$30
Lab Fee (if applicable)	\$ range	\$ range by program

For more information or to express interest in this program, contact: Advising@ec3pa.org.



To learn more about the program, visit <https://bit.ly/3RSduOI> or scan the QR code.

ec3pa.org