

WEST CENTRAL OHIO MANUFACTURING CONSORTIUM

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The West Central Ohio Manufacturing Consortium (WCOMC) is a recognized asset for area manufacturers to address their skill training needs and for area residents to develop their skills for employment in manufacturing. There are three levels of certification: Basic, Intermediate, and Advanced.

The Basic Pathway is a 60-hour course that includes curriculum that provides hands-on training from the Manufacturing Skills Standards Council (MSSC). Students may take assessments in each of the four MSSC modules to earn nationally-recognized credentials: Manufacturing Production & Processes, Quality Practices & Measurement, Workplace Safety, and Maintenance Awareness. Additional hands-on exercises with continuous improvement instruments and measurement tools such as calipers, rulers, and micrometers are included in the course. Students also create or upgrade their resume and complete the Free Application for Federal Student Aid (FAFSA) for financial assistance eligibility. Students who complete the Basic Pathway course are guaranteed a referral for job interview consideration with WCOMC members and receive weekly information on local job openings, job fairs, and other employment opportunities.

The WCOMC offers seven Intermediate Pathway certificates in in-demand areas of manufacturing including:

- Electrical
- Environmental-Health-Safety
- Computer Numerical Control (CNC) Machining
- Programmable Logic Controllers (PLC)
- Robotics
- Operations Excellence
- Process Operations



The Advanced Pathway is an Associate's or Bachelor's degree in a manufacturing discipline.

For manufacturers, membership in the WCOMC gives them access to the records of the students who successfully complete any of the three pathways, assuring a skilled employee prospect for hiring. This pool of students reduces a manufacturer's costs associated with hiring and training workers. Rhodes State College and the WCOMC are currently partners with the Northwest Ohio Manufacturing Extension Partnership, which provides the products, services, and assistance that are dedicated to the productivity, growth, and global competitiveness of Ohio manufacturers. This partnership broadens the access of training and service programs to manufacturers in the region.

For more information, go to wcomfg.com




Intermediate Certificates

Electrical

Code	Title	Hours
AMT 1020	Preventive Maintenance	2
AMT 1070	Basic Electricity and Electronics	3
CPT 1250	Computer Applications in the Workplace	3
AMT 1040 or MET 1110	Blueprint Reading and Schematics Manufacturing Processes	2
EET 1110	Circuit Analysis I	3
IMT 1911	Technical Math I	3
EET 1330  or EET 1120	Digital Circuits Circuit Analysis II	4
EET 2200	Panel Wiring and Arc Flash Safety	3
EET 2030	Motor Controls	3
AMT 2060	Controls and Instrumentation	3
AMT 2970 	Troubleshooting Capstone	3


Total Hours **32**

Environmental-Health-Safety

Code	Title	Hours
CPT 1250	Computer Applications in the Workplace	3
OET 1100	Operations Management	3
ENV 1000 	Introduction to EHS Technology	3
MET 1010	Blueprint Reading and Sketching	3
ENV 1210	Environmental Laws and Regulations	3
ENV 1300	OSHA Regulations and Safety	3
IMT 1911	Technical Math I	3
MET 1110 	Manufacturing Processes	3
OET 1110	Introduction to Operations Excellence	3
AMT 2970 	Troubleshooting Capstone	3



Total Hours **30**

Programmable Logic Controllers (PLC)





Code	Title	Hours
CPT 1250	Computer Applications in the Workplace	3
EET 1330 	Digital Circuits	4
EET 2030	Motor Controls	3
AMT 1020	Preventive Maintenance	2
AMT 1070	Basic Electricity and Electronics	3
IMT 1911	Technical Math I	3
AMT 1040 or MET 1000	Blueprint Reading and Schematics Engineering Graphics with AutoCAD	2
EET 1110	Circuit Analysis I	3
EET 2911	Programmable Logic Controllers	3
EET 2920	Advanced Programmable Controllers	3
EET 2530		1

Total Hours **30**

Computer Numerical Control (CNC)

Code	Title	Hours
AMT 1020	Preventive Maintenance	2
CET 1910	OSHA 10-hr General Safety	1
MET 1110 	Manufacturing Processes	3
IMT 1911	Technical Math I	3
IMT 1010	Mechanical and Electrical Print Reading	2
CPT 1250	Computer Applications in the Workplace	3
FMS 2110	Basic Robotics and Mechatronics	3
FMS 2320	Manual Machining I	2
FMS 2210	CAM/CNC Machining I	3
FMS 2130 	Industrial Mechatronics and Robotics	3
FMS 2220	CAM/CNC Machining II	3
FMS 2340	Numerical Control Concepts	2
Total Hours		30

Robotics

Code	Title	Hours
AMT 1020	Preventive Maintenance	2
IMT 1911	Technical Math I	3
CPT 1250	Computer Applications in the Workplace	3
AMT 1040 or MET 1000	Blueprint Reading and Schematics Engineering Graphics with AutoCAD	2
AMT 1070	Basic Electricity and Electronics	3
EET 1110	Circuit Analysis I	3
FMS 2110	Basic Robotics and Mechatronics	3
EET 1330 	Digital Circuits	4
FMS 2130 	Industrial Mechatronics and Robotics	3
AMT 2050	Robot Maintenance	3
AMT 2970 	Troubleshooting Capstone	3
		
Total Hours		32

Operations Excellence

The completion of this coursework prepares students toward the Six Sigma Black Belt.



Code	Title	Hours
OET 1100	Operations Management	3
OET 1110	Introduction to Operations Excellence	3
OET 1120	Tools of Operations Excellence ¹	4
OET 2015	Statistics for SPC ¹	3
OET 2021	Advanced Tools of Operations Excellence ¹	3
OET 2120	Quality Management Systems	3
OET 2210	Logistics and Supply Chain	3
OET 2510	Lean Systems	3
OET 2970	Cost Analysis and Estimating	4
OET 2980	OET Capstone	3
Total Hours		32

 Portfolio Course

¹ Completion of this coursework prepares students toward the Six Sigma Greenbelt.

Process Operations Certificate

The WCOMC also offers a Process Operations Intermediate Pathway certificate through Rhodes State College and Apollo Career Center. The Apollo Chemical Operator program, a 12-week, 184-hour class, is a prerequisite before taking the FMS 2460 Process Tech Instrumentation and FMS 2470 Process Technology Equipment classes at Rhodes State College, unless the student has a minimum of one year professional experience in process operations. Persons may take the other courses in this certificate at Rhodes State College before completing the Apollo program. Apollo's process operator class is offered on-demand in response to local industry. This certificate may be applied toward an Associate of Technical Studies (ATS) degree in process operations.

Code	Title	Hours
CHM 1110	Introductory General Chemistry	4
ENV 1000 	Introduction to EHS Technology	3
EET 1330 	Digital Circuits	4
FMS 2460	Process Tech Instrumentation ¹	3
FMS 2470	Process Technology Equipment ¹	3
IMT 1911	Technical Math I	3
OET 1100	Operations Management	3
Total Hours		23

 Portfolio Course

¹ Apollo Chemical Operator Class is a pre-requisite unless student has minimum one year professional experience in process operations. The Apollo class is a 184-hour evening class offered on-demand by local industry.