



# Industrial Mechanics

at Walla Walla Community College - Clarkston Campus

<https://dept.wwcc.edu/energy>

## The Program

Graduates of the Industrial Maintenance concentration will enter the workforce with the knowledge and skills to:

- Maintain and repair equipment and industrial machinery, such as: conveying systems, production machinery, and packaging equipment
- Control and operate plant equipment, such as: turbines, pumps, valves, gates, fans, and controllers
- Read blueprints or technical diagrams
- Identify electrical problems using a variety of testing devices
- Repair or replace wiring, equipment, and instruments safely to NEC standards using hand and power tools

## Career Opportunities

Employment of industrial machinery mechanics and machinery maintenance workers is projected to grow 7 percent from 2016 to 2026. Increased automation, including use of computer-controlled machines in manufacturing plants, will raise demand for maintenance workers in order to keep mechanical and electrical systems functioning properly.

**Career Path:** Median entry-level wage: \$24.06 hourly, \$50,040 annual

- Assistant Technician/Mechanic
- Industrial Maintenance/Machinery Mechanic
- Systems Specialist
- System/Facility Supervisor

## WWCC Degree Options

**AAS degree in Energy Systems Technology (EST)** with concentration in Industrial Maintenance.

Certificate is available after successful completion of first three quarters of the EST degree.

Completion of additional EST concentrations is an option.



## For More Information

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# Energy Systems Technology

## Concentration: Industrial Mechanics

### Required Coursework for: Electrical Systems Technology Core

### The following courses are required for the concentration in Industrial Mechanics

#### Fall Quarter

Course #	Course Name	Credits
EST 145	Industrial Safety and Rigging .....	5
EST 131	Principles of Electricity Theory .....	4
<b>WTM 215*</b>	<b>Fluid Dynamics (Applied Mathematics) .....</b>	<b>5</b>
EST 260	Introduction to the National Electrical Code .....	2
FYE 101	First Year Experience .....	3
	Total Credits .....	19

#### Winter Quarter

EST 132	Principles of Electricity AC Application .....	4
<b>AENG 100</b>	<b>Applied Writing (W + J) .....</b>	<b>5</b>
CS 110	Intro. Computers & Applications .....	5
ENT 112	Blueprint Reading .....	2
	Total Credits .....	16

#### Spring Quarter

EST 133	Introduction to Controls .....	4
EST 150	Electric Motors and Motor Maintenance .....	3
IFA 022	AHA Heartsaver First Aid .....	0.4
<b>ACOM 102</b>	<b>Applied Communications (O/R/L) .....</b>	<b>5</b>
EST 115	Industrial Mechanics .....	5
	Total Credits .....	17.4
	<b>Total Certificate Credits .....</b>	<b>52.4</b>

#### Fall Quarter

Course #	Course Name	Credits
EST 106	Process Control Instrumentation and Troubleshooting .....	5
PMT 109	Intro to Precision Machining .....	5
AMATH 106	Applied Mathematics (for Machining) .....	5
	Total Credits .....	15

#### Winter Quarter

WTM 221	Pump Applications .....	3
WELD 141	Welding Basics .....	4
PMT 111	Precision Machining Basics II .....	5
EST 159	Hydraulics and Pneumatics .....	3
	Total Credits .....	15

#### Spring Quarter

WTM 190	Water Quality and Environmental Chemistry .....	5
EST 250	Programmable Logic Controllers .....	5
PMT 121	Precision Machining Basics III .....	5
	Total Credits (min.) .....	15
	<b>Total Degree Credits (min.) .....</b>	<b>97.4</b>

**Certificate can be earned by completing first 3 quarters of program.**

\*Placement in WTM 215 requires a C or higher in AMATH 105 (or BUS 112) or placement into AMATH 106 or 107.

The following courses can be substituted for identified related instruction courses.

(W) Written Communication:	ENGL 097 or higher
(M) Computation / Mathematics:	MATH& 141 or higher
(O) Oral Communications:	Any O course
(R) Human Relations:	Any R course

CIP-47.0101 EPC 780A Energy Systems Technology Degree (with Industrial Mechanics concentration)

Updated 7/2019

**The actual order and specific coursework may vary depending on student placement, start date, and quarter.  
Please check with your advisor prior to any substitutions.**

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Walla Walla Community College posts an Annual Security Report online. A paper copy of the report may also be obtained, free of charge, by visiting the Campus Security and Environmental Health and Safety office during normal business hours. The report contains policies and procedures related to campus safety and security, three years of crime statistics and other additional safety information.