

Outdoor Powersports Technology

Western Monroe & Orleans Counties
WEMOCO
Career & Technical Education Center

Powersports are everywhere - become an expert!



Learn how to diagnose/troubleshoot, repair and maintain two- and four-stroke recreational and utility machines. Gain real world experience driven by seasonal demands.

Units of Study

- Hand, Power, and Stationary Tools and Equipment
- Pre and Post-Season Maintenance and Storage
- Precision measuring instruments
- Principles of Operation, Maintenance, and Repair: 4-Stroke Cycle Engines
- Principles of Operation, Maintenance, and Repair: 2-Stroke Cycle Engines
- Fuel Systems (Carburetors, fuel injection, direct injection)
- Electrical and Ignition Systems
- Exhaust Systems
- Cooling Systems
- Clutches and Brakes
- Trailer Service
- Service Writing

Integrated Academics

English

Licensing / Industry- Based Certification

Equipment Engine Training Council (EETC) 2-stroke and 4-stroke engine Certification

Work-Based Learning

CTE programs bring students into the workplace for real life experiences. Businesses that supports our Outdoor Powersports Technology program:

- Brodner Equipment
- Bryce Marine
- Cycle Stop
- Danny's Equipment
- Hollink Motorsports
- LandPro Equipment
- Precision Power Services Inc.
- Wehner Mower Inc.

Articulation Agreements

- Alfred State
- Ohio Tech/ Power Sport Institute
- SUNY Canton



Career Paths

All CTE programs correlate to many career paths.

↓ Start Here

- Small Engine Mechanic

Go Here ↓

with more education & experience

- Equipment Salesperson
- Motorcycle Technician
- Watercraft and Boat Designer

Explore more:

<https://www.careerzone.ny.gov/>

<https://www.onetonline.org/find/>



WEMOCO Career & Technical Education Center
Monroe 2-Orleans Board of Cooperative Educational Services
Monroe2BOCES.org/cte 585-352-2471
3589 Big Ridge Road, Spencerport, New York 14559



Outdoor Powersports Technology

Employability Profile

<u>Work-Related Skills</u>		<u>Troubleshooting & Diagnostics</u>		<u>4-Stroke Cycle Engine Principles of Operation & Rebuild</u>		<u>Snowmobile Preventive Maintenance & Service</u>	
Productivity and Accountability	_____	Able to troubleshoot/diagnose using battery load tester(s)	_____	Demonstrate the ability to troubleshoot/diagnose engine failures in a safe and effective manner	_____	Demonstrate the ability to properly prepare the fuel system, engine, and machine for off season storage	_____
Follows procedures to meet expectations and deadlines	_____	Able to troubleshoot/diagnose fuel/fuel supply related issues	_____	Demonstrate the ability to perform common service and preventative maintenance procedures	_____	Demonstrate the ability to perform common service and preventative maintenance procedures	_____
Displays consistent work performance and quality of work	_____	Able to troubleshoot/diagnose using inline and cranking spark testers	_____	Demonstrate the ability to rebuild a single cylinder 4-Stroke engine	_____	Demonstrate the ability to fine-tune and make necessary adjustments	_____
Flexibility and Adaptability	_____	Able to troubleshoot/diagnose using compression and leak down testers	_____	Demonstrate the ability to fine-tune and make necessary adjustments	_____		
Works effectively in varied roles and responsibilities	_____	Able to troubleshoot/diagnose using 12 volt test light (Not Applicable)	_____				
Responds well to and implements feedback	_____						
Initiative and Self-Direction	_____						
Identifies, prioritizes, and completes tasks without direct oversight	_____						
Seeks to learn and develop new knowledge and skills	_____						
Leadership and Responsibility	_____						
Leverages strengths of others to accomplish a goal	_____						
Takes ownership of one's work, performance, behavior, and actions	_____						
Communication	_____						
Articulates thoughts and ideas clearly and effectively through speaking and writing	_____						
Practices active listening skills	_____						
Collaboration	_____						
Works effectively with others	_____						
Open and responsive to new and diverse perspectives	_____						
Critical Thinking and Problem Solving	_____						
Asks questions to lead to better solutions	_____						
Identifies possible options and their outcomes	_____						

<u>Precision Engine Measurement</u>		<u>Fuel Systems/Carburetion</u>		<u>Marine Preventive Maintenance & Service</u>	
Able to handle, calibrate, and care for precision measuring instruments	_____	Demonstrate the ability to troubleshoot/diagnose fuel systems and carburetors in a safe and effective manner	_____	Demonstrate the ability to properly prepare the fuel system, engine, outdrive, and boat for off season storage	_____
Describe/choose measuring instruments best suited for individual tasks	_____	Demonstrate the ability to rebuild a variety of different styles of carburetors	_____	Demonstrate the ability to perform common service and preventative maintenance procedures	_____
Demonstrate the ability to take measurements and calculate clearances	_____	Demonstrate the ability to fine-tune and make necessary adjustments	_____	Demonstrate the ability to fine-tune and make necessary adjustments	_____
Locate manufacturer specifications from service manuals	_____				

<u>2-Stroke Cycle Engine Principles of Operation & Rebuild</u>		<u>Electrical; Starting & Charging and Ignition Systems</u>		<u>Marine Preventive Maintenance & Service</u>	
Demonstrate the ability to troubleshoot/diagnose engine failures in a safe and effective manner	_____	Demonstrate the proper use and care of electrical testing instruments in a safe and effective manner	_____	Demonstrate the ability to perform common service and preventative maintenance procedures	_____
Demonstrate the ability to perform common service and preventative maintenance procedures	_____	Demonstrate the ability to troubleshoot/diagnose electrical systems in a safe and effective manner	_____	Demonstrate the ability to fine-tune and make necessary adjustments	_____
Demonstrate the ability to rebuild the top end of a 2-Stroke engine	_____	Demonstrate the ability to troubleshoot/diagnose ignition systems in a safe and effective manner	_____		
Demonstrate the ability to fine-tune and make necessary adjustments	_____				

<u>Tools of the Trade</u>		<u>Outdoor Power Equipment Preventive Maintenance & Service</u>	
Properly use and care for common hand and power tools	_____	Demonstrate the ability to properly prepare the fuel system, engine, and machine for off season storage	_____
Safely operate common shop equipment	_____	Demonstrate the ability to perform common service and preventative maintenance procedures	_____
Safely setup, operate, and shut down an Oxy-Acetylene torch	_____	Demonstrate the ability to fine-tune and make necessary adjustments	_____
Safely setup, operate, and shut down a Mig welder (basic)	_____		