Outdoor Powersports Technology



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

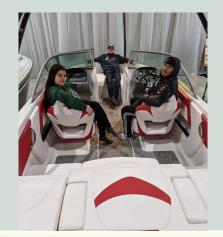
Work-Based Learning

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 Outlook

All CTE programs correlate to many careers paths. Use the links below to explore more. One example:

Job Projections for Small Engine Mechanic: 17% projected growth in New York State jobs 2016-2026.

New York State salary range: \$27,310 entry level- \$43,040 experienced

Education Requirements: Small engine mechanics typically attend a career and technical education program, or learn their trade through on-the-job training.

Explore more:

https://www.careerzone.ny.gov/ https://www.onetonline.org/find/









Outdoor Powersports Technology



Employability Profile

Career Readiness Attendance Punctuality Appropriate Workplace appearance Takes Initiative High Quality of work Knowledge of workplace ethics Responsive to supervisor Effective Communication skills Solves problems Makes decisions Cooperates with others Resolves conflict Observes critically Takes responsibility for learning Reads with understanding Solves problems using math Complies with health and safety Uses technology appropriately

Tools of the Trade Properly use and care for common hand and power tools Safely operate common shop equipment Safely setup, operate, and shut down an Oxy-Acetylene torch Safely setup, operate, and shut down an Mig welder (basic)

Iroubleshooting & Diagnostics		STICS
	Able to troubleshoot/diagnose using battery load tester(s)	
	Able to troubleshoot/diagnose fuel/fuel supply related issues	
	Able to troubleshoot/diagnose using inline and cranking spark testers	
	Able to troubleshoot/diagnose using compression and leak down testers	
	Able to troubleshoot/diagnose using 12 volt test light (Not Applicable)	

Precision Engine Measurement Able to handle, calibrate, and care for precision measuring instruments Describe/choose measuring instruments best suited for individual lasks

Demonstrate the ability to take measurements and calculate clearances Locate manufacturer specifications

from service manuals

2-Stroke Cycle Engine Principles of Operation & Rebuild

Demonstrate the ability to troubleshoot/diagnose engine failures in a safe and effective manner

Demonstrate the ability to perform common service and preventative maintenance procedures

Demonstrate the ability to rebuild the top end of a 2-Stroke engine

Demonstrate the ability to fine-tune and make necessary adjustments

4-Stroke Cycle Engine Principles of Operation & Rebuild

Demonstrate the ability to troubleshoot/diagnose engine failures in a safe and effective

Demonstrate the ability to perform common service and preventative maintenance procedures

Demonstrate the ability to rebuild a single cylinder 4-Stroke engine

Demonstrate the ability to fine-tune and make necessary adjustments

Fuel Systems/Carburetion

Demonstrate the ability to troubleshoot/diagnose fuel systems and carburetors in a safe and effective manner

Demonstrate the ability to rebuild a variety of different styles of carburetors

Demonstrate the ability to fine-tune and make necessary adjustments

Electrical; Starting & Charging and Ignition Systems

Demonstrate the proper use and care of electrical testing instruments in a safe and effective manner

Demonstrate the ability to troubleshoot/diagnose electrical systems in a safe and effective manner

Demonstrate the ability to troubleshoot/diagnose ignition systems in a safe and effective manner

Outdoor Power Equipment Preventive <u>Maintenance & Service</u>

Demonstrate the ability to properly prepare the fuel system, engine, and machine for off season storage

Demonstrate the ability to perform common service and preventative maintenance procedures

Demonstrate the ability to fine-tune and make necessary adjustments

<u>Snowmobile Preventive Maintenance & Service</u>

Demonstrate the ability to properly prepare the fuel system, engine, and machine for off season storage

Demonstrate the ability to perform common service and preventative maintenance procedures

Demonstrate the ability to fine-tune and make necessary adjustments

Marine Preventive Maintenance & Service

Demonstrate the ability to properly prepare the fuel system, engine, outdrive, and boat for off season storage

Demonstrate the ability to perform common service and preventative maintenance procedures

Demonstrate the ability to fine-tune and make necessary adjustments

<u>Dirt Bike/All Terrain Vehicle Preventive</u> <u>Maintenance & Service</u>

Demonstrate the ability to perform common service and preventative maintenance procedures

Demonstrate the ability to fine-tune and make necessary adjustments