



## Automotive Technology

*2-Year Program*

Plattsburgh Main Campus

Mineville Campus

This program teaches the skills necessary to troubleshoot and repair the complex systems of today's high tech automobiles. Experience the latest technology in a hands-on electronics-based curriculum. Students will learn to diagnose and service automotive electrical systems, drivelines, brakes, fuel injection systems, emissions systems, steering, suspension, engines, and transmissions.



## Program Highlights

- 4-Wheel Thrust Angle Alignments
- Electrical and Mechanical Brake System diagnosis and repair
- Computerized Climate Control Systems
- Air Bags & Passive Restraint Systems
- Computerized Electrical Diagnosis
- Equipment Training
- Scheduled Equipment Training
- New York State Inspection
- Electronic Fuel Injection Repair
- Customer Service Training

## Career Connections

- Entry Level Technician at Automotive Dealership
- Parts Counter Representative
- Service Shop Technician
- Service Advisor
- Service Manager
- Tire and Alignment Technician
- Service Repair Writer
- Work Study with local repair shops
- Automotive Technician
- Repair Shop Owner
- Automotive Instructor

## Articulation Agreements

- Clinton Community College
- Lincoln Technical Institute
- SUNY Canton
- SUNY Delhi
- University of N.W. Ohio
- UTI, Proficiency Credit or \$1000 tuition
- Wyotech, Scholarship Available

## Certifications

- ASE Certification Preparation
- NYS Inspection Licensure
- Auto Lift Institute Certification
- OSHA-10: General Industry
- First Aid/CPR
- NWRC/21-st Century Skills

## Course of Study

### Vehicle Maintenance

- Oil and filter change procedures
- Scheduled maintenance procedures
- Proper jacking and lifting procedures
- Tire mounting, balancing and repair
- Replacing serpentine and v-belts

### Brake Systems

- Disc and drum brake diagnosis & repair
- Machine rotors on the vehicle
- Fabrication and replacement of steel brake lines. (double & iso flares)
- Brake bleeding procedures
- Diagnose anti-lock brakes

### Suspension and Steering

- Identify related components
- Inspect components for wear/damage
- Replace ball joints and tie rod ends
- Replace shocks and MacPherson struts
- Computerized 4-wheel alignments

### Drivetrain

- Diagnose and replace universal joints
- Replace CV boots, joints and half shafts
- Replace clutch
- Replace wheel bearings
- Replace axle shaft bearings and seals
- Transmission replacement

### Electrical Systems

- Diagnose and repair battery, charging and starting systems
- Wiring repairs soldering, heat shrink and crimp connectors
- Read and understand wiring diagrams
- Use digital multimeter
- Repair lighting system

### Engine Performance

- Use Snap-On diagnostic scan tool
- Identify fuel injection components
- Understand processor strategies
- Measure fuel pressure and volume
- Perform compression tests
- Perform cylinder leak down tests
- Test evaporative emissions systems
- Diagnose check engine lights
- Check engine oil pressure

### Engine Repair

- Engine replacement
- Replace timing belts, chains, gears
- Replace head gaskets
- Cooling system repairs
- Measure engine components
- Use micrometers, verniers and dial calipers