

troubleshoot

Technicians and Mechanics inspect, service and repair engines and sub-systems.

REFUND POLICY

If OACES cancels a class for any reason that a student has paid tuition, 100% of the tuition will be refunded within 45 days of the scheduled class start date. If a student chooses to withdraw they are required to meet with a School Counselor to complete the Withdrawal Form. Withdrawal before the start of class: 100% of tuition. Withdrawal the end of the first week of classes: 75% of tuition. Withdrawal before the end of the second week of classes: 50% of tuition. Withdrawal before the end of the third week of classes: 25% of tuition. Withdrawal after the end of the third week of classes: no refund.

OACES

AUTOMOTIVE TECHNOLOGIES PROGRAM

The Automotive Technologies Program is designed to prepare students with the knowledge and skills needed to service, troubleshoot and repair basic automotive systems. Hands-on shop time allows students to disassemble, repair, reassemble, rebuild and test auto engines, brakes and suspension systems.

Course work includes the fuel systems, electrical, transmission, trans-axel and belt/pulley/chain drive systems. Instruction also covers safety practices, wiring diagrams, mechanical schematics and the use of technical manuals.

Training Duration: 624 hours (3-6 months)

Schedule: 9:00 a.m. - 3:30 p.m., 5 days a week schedule, Monday–Friday

Admission/Academic Requirements: Class open to all students. No technology experience required.

Performance Expectations: Exemplary attendance, ability to work well with others in a group setting, ability to follow directions and conform to safety rules.

Costs: 2018 – 2019 Tuition for Automotive Technologies Program is \$5,000. Financial Assistance for Career Training classes will be assessed on an individual basis at Intake. To schedule an Intake date go to oaces.net and click on “Enroll Now.”

Career Opportunities

- According to the Bureau of Labor Statistics, the average annual salary for Automotive Service Technicians and Mechanics is \$39,550.
- Jobs for Automotive Service Technicians and Mechanics are expected to increase 6% annually from 2016-2026.
- Employment opportunities are available in the following areas: automotive service, oil changes, tire service, small engine service and repair, equipment service and repair and motorcycle/recreational vehicle service and repair.

Program of Study & Technical Competencies

LEVEL 1

Orientation & Foundational Skills

- Demonstrate the knowledge of the role that safety plays in equipment and auto engine repair
- Demonstrate the use and care of appropriate personal protective equipment
- Add, subtract, multiply and divide numbers with and without a calculator
- Demonstrate workplace ethics
- Identify various careers related to equipment and auto engine repair and the expectations for each
- Know and interpret MSDS sheets
- Understand fires and extinguishing methods
- Maintain OACES minimum attendance standards
- Shop safety

Basic Work Skills

- Understand and use terms connected with automotive technologies
- Identify and use measuring and calibrating tools
- Identify the basic hand tools used in automotive technologies
- Demonstrate the safe use of industry related hand tools
- Identify and use industry related power tools
- Identify and use common fasteners

Technical Skills

- Understand and use parts management, inventory control and service orders
- Recognize and understand various engine designs
- Recognize and analyze components and operation of 4-stroke engines
- Recognize and use various parts of cooling systems
- Identify and use various parts of the fuel and lubrication system
- Identify and use basic parts of the governor system
- Identify, test and replace various parts of the electrical system
- Identify, test and replace various parts of the ignition system
- Complete oil and tire changes.

LEVEL 2

4-Stroke Engines

- Define 4-stroke engine terminologies
- Know and use basic engine principals of operations of a 4-stroke engine
- Identify 4-stroke engine parts
- Diagnose 4-stroke engine problems

- Disassemble a 4-stroke engine
- Inspect components to verify that the correct problem has been identified
- Repair/service failed components identified during the inspection
- Reassemble a 4-stroke engine
- Test a 4-stroke engine

Basic Welding Competencies

- Identify and use basic welding tools and safety equipment
- Identify and use various types of welding simulators
- Identify and use MIG, TIG and Stick welders

Disc and Drum Braking System

The training includes the following components:

- Handbrake assembly
- Diagonally split hydraulic circuit
- Master cylinder
- Brake fluid reservoir
- Brake pedal and light
- Front hubs, discs and calipers
- Rear hubs and drums

4, 6 and 8 Cylinder Gasoline Engine Training

The training includes the following:

- The position and mounting of all engine components
- The operation of crankshaft and pistons
- The operation of inlet and exhaust valves
- The timing relationships between engine components

Steering and Suspension System Training

The training offers the following:

- Inspect steering shaft universal joint, flexible coupling, collapsible column, lock cylinder mechanism, and steering wheel.
- Disassemble, inspect, and reassemble rack and pinion steering gear.
- Inspect power steering fluid levels and condition.
- Diagnose power steering fluid leakage.
- Remove, inspect, and replace power steering pump, mounts, seals, pump belt, pump pulley, and pump belt.
- Remove, inspect, and install coil springs and spring insulators.

Certifications/Instructional Outcomes

- Lincoln Welding Safety
- Basic Welding Competencies
- Automotive Technologies - Level 1
- Automotive Technologies - Level 2