

Youth Automotive Training Center — Curriculum

Automotive

Minor Vehicle Service

The course introduces shop operation, customer relations, flat rate manuals, safety, equipment, tools and basic operational theories. Emphasis is placed on proper use of hand tools, measuring instruments and equipment. Included are service procedures for lubrication, batteries, cooling system, wheels and tires and new/used car detailing.

Automotive Brakes

The course involves a detailed study of types of braking systems and their service requirements. Machine turning of brake drums and rotors is included. Emphasis is placed on system operation, diagnosis, adjustment, testing, replacement and repair procedures.

Suspension and Steering

Students learn about suspension systems with an emphasis on wheel alignment and suspension rebuilding.

Electrical Systems

Course study involves the automobile electrical system including batteries, wiring, lighting, alternators, starters and voltage regulators. The course covers the use of electrical test equipment and schematics and stresses the proper care and use of tools.

Engine Basics

The focus of the course is the operational theory of the internal combustion engine and introduces engine rebuilding, mechanical diagnosis and failure analysis.

Fuel Delivery and Emissions

The principal functions of the automotive fuel system are covered, including the carburetor, fuel pump, gas tank, emission control systems, repair and adjustment of the carburetor, fuel injection and their components.

Engine Tune-up

Students learn the techniques for diagnosing the automobile engine and other areas, with an emphasis on electronics and conventional engine systems. Complete tune-up procedures using the latest test equipment are studied to ensure proper application to the automobile.

Heating and Air Conditioning

The course focuses on the principles of the operation and service techniques applied to automobile heating and air conditioning systems. Topics include components, testing, diagnosing, charting and repair practices.

Academic

Upon acceptance into the YATC program, students are given the Test for Adult Basic Education (TABE), which allows the academic instructors to determine an appropriate Individualized Education Program (IEP) best suited to each student's needs in working toward a Florida high school General Educational Development (GED) diploma.

Supplemental

In addition to the automotive and academic curriculum, students are given life skills instruction and extracurricular activities designed to enhance their education and career preparation, including guest speakers and instructors, team building exercises, field trips, tutoring and mentoring, certification programs such as Automotive Service Excellence (ASE), college scholarships and community volunteer projects.