



AUTOMOTIVE (AUT)

AUT 101 Intro to Automotive Service/Safety (1 Credit)

This course is an introduction to the automotive service field which covers service procedures, tools of the trade, career opportunities, personal and shop safety, and chemicals present in the shop.

AUT 102 Engine Repair and Service (4 Credits)

This course covers diagnosis, repair, adjustment, inspection, and basic theory which includes: automotive engines, theory of engine operation, engine operating systems, engine materials and fasteners, intake and exhaust systems, factors affecting engine performance, engine configurations, mounts, and remanufactured engines, cylinder heads, camshafts and valve trains, timing mechanisms engine block construction, pistons, rings, connecting rods, and bearings and alternative fuel and advanced technology vehicles. This course meets ASE contact hours (120).

AUT 104 Manual Drive Trains and Axles (4 Credits)

This course covers automotive manual drive train diagnosis, repair, adjustment, inspection, and basic theory which includes drive train theory, clutches, manual transmissions, and transaxles, front drive axles, drive shafts and universal joints, differential and drive axles, four-wheel-drive systems, and drive train electrical and electronic systems. This course meets ASE contact hours (100).

AUT 105 Automotive Brakes (4 Credits)

This course covers diagnosis, repair, adjustment, inspection, and basic theory of automotive brake systems which covers disc brakes, drum brakes, power boosters, master cylinders, wheel cylinders, valves and hydraulic principals related to automotive brake systems. This course meets ASE contact hours (105).

AUT 106 Automotive Electrical Systems (8 Credits)

This course covers diagnosis, repair, adjustment, inspection, and basic theory of the automotive electrical system which covers starting system, charging system, batteries, basic electrical theories, electrical components, testing equipment, wiring diagrams, and automotive computers. This course meets ASE contact hours (230).

AUT 201 Engine Performance (8 Credits)

This course covers diagnosis, repair, adjustment, inspection, and basic theory of automotive tune-ups, input sensor diagnosis and service, ignition system service and diagnosis, fuel tank, line and pump service, conventional and computer controlled carburetor diagnosis and service, electronic fuel injection diagnosis and service, idle speed control systems service and diagnosis, exhaust gas recirculation, secondary air injection, and evaporative emission control systems diagnosis and service, positive crankcase ventilation, spark timing control, and intake manifold heat control systems, service and diagnosis, engine diagnosis with infrared analyzer, engine analyzer, and oscilloscope, turbocharger charger and supercharger diagnosis and service. This course meets ASE contact hours: 220 hours.

AUT 202 Steering and Suspension (4 Credits)

This course covers automotive steering and suspension diagnosis, repair, adjustment, inspection, and basic theory which covers wheel bearings, tires and wheels, shock absorbers and struts, front and rear suspension systems, steering columns, power steering pumps, steering gears, and two and four wheel alignments. This course meets ASE contact hours (95).

AUT 203 Automatic Transmissions/Transaxles (4 Credits)

This course covers diagnosis, repair, adjustment, inspection, basic theory of hydraulics, automatic transmission, transaxles and fluid coupling which covers valve body service, clutch packs, bands, torque converters, planetary gear sets, and hydraulic pumps. This course meets ASE contact hours (120).

AUT 204 Heating and Air Condition (4 Credits)

This course covers diagnosis, repair, adjustment, inspection, and basic theory of automotive heating and air conditioning systems which covers history and purpose, health and safety, temperature and pressure fundamentals, refrigeration system and components, system testing and servicing, case and duct systems, retrofitting, system controls, and engine cooling and heating systems. This course meets ASE contact hours (90).