

SUBJECTS AND COURSES

COURSE DESCRIPTIONS - AUTOMOTIVE SERVICE TECH (ASE)

ASE 101 Fundamental Automotive Technol

This course provides basic instruction in Fundamentals of Automotive Technology. This is a CORE course. **5 Credit Hours**

ASE 112 Electrical Fundamentals

This course introduces the principles and laws of electricity. Emphasis is placed on wiring diagrams, test equipment, and identifying series, parallel and series-parallel circuits. Upon completion, students should be able to calculate, build, and measure circuits. CORE **5 Credit Hours**

ASE 121 Braking Systems

This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of brakes. ABR 223 Automotive Mechanical Components is a suitable substitute for this course. This is a CORE course. **5 Credit Hours**

ASE 122 Steering Suspension & Alignmen

This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of steering and suspension. This is a CORE course. **5 Credit Hours**

ASE 124 Automotive Engines

This course provides instruction on the operation, design, and superficial repair of automotive engines. Emphasis is placed on understanding the four stroke cycle, intake and exhaust manifolds and related parts, engine mechanical timing components, engine cooling and lubrication system principles and repairs, and basic fuel and ignition operation. This is a CORE course. **5 Credit Hours**

ASE 130 Drive Train and Axles

This course provides basic instruction in automotive drive trains and axles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and driveability. ABR 223 Automotive Mechanical Components is a suitable substitute for this course. This is a CORE course. **5 Credit Hours**

ASE 133 Motor Vehicle Air Conditioning

This course provides basic instruction in theory, operation, and repair of automotive heating and air conditioning systems. Emphasis is placed on the understanding and repair of vehicle air conditioning and heating systems, including but not limited to air management, electrical and vacuum controls, refrigerant recovery, and component replacement. **5 Credit Hours**

ASE 150 Dealership Work Experience

At the end of each on-campus period, the student returns to the sponsoring dealership to complete this segment of the program working full-time under the supervision of the dealership student work coordinator. He/she is expected to complete work assignments in the dealership that will reinforce and parallel the course work just completed at the college. Although indicated as 10 contact hours, students generally work on a full-time basis (40 hours per week) at the dealership. An evaluation of the student's in dealership work performance is completed by the dealership supervisor. **10 Credit Hours**

ASE 160 Dealership Work Experience

At the end of each on-campus period, the student returns to the sponsoring dealership to complete this segment of the program working full-time under the supervision of the dealership student work coordinator. He/she is expected to complete work assignments in the dealership that will reinforce and parallel the course work just completed at the college. Although indicated as 10 contact hours, students generally work on a full-time basis (40 hours per week) at the dealership. An evaluation of the student's in dealership work performance is completed by the dealership supervisor. **10 Credit Hours**

ASE 162 Electrical & Electronic System

This is an intermediate course in automotive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of battery, starting, charging, and lighting systems, subsystems, and components. This is a CORE course. **5 Credit Hours**

ASE 191 CO-OP

PREREQUISITE: As determined by college. These courses constitute a series wherein the student works on a part-time basis in a job directly related to automotive mechanics. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting. **10 Credit Hours**

ASE 212 Adv Electrical & Electronic Sy

This course provides instruction in advanced automotive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of advanced electrical and electronic systems, subsystems, and components. **5 Credit Hours**

ASE 220 Advanced Automotive Engines

This course provides in depth instruction concerning internal engine diagnosis, overhaul and repair, including but not necessarily limited to the replacement of timing chains, belts, and gears, as well as the replacement or reconditioning of valve train components as well as replacement of pistons, connecting rods, piston rings, bearings, lubrication system components, gaskets, and oil sea **5 Credit Hours**

ASE 224 Manual Transmission/transaxle

This course covers basic instruction in manual transmissions and transaxles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and driveability. **5 Credit Hours**

ASE 230 Auto Transmission/transaxle

This course provides basic instruction in automatic transmissions and transaxles. Emphasis is placed on the comprehension of principles and powerflow of automatic transmissions and repairing or replacing internal and external components. This is a CORE course. **5 Credit Hours**

ASE 239 Engine Performance I

This course provides basic instruction in engine performance with emphasis on fuel and ignition systems relating to engine operation. This is a CORE course. **5 Credit Hours**

ASE 244 Engine Performance & Diagnosti

This course provides advanced instruction in engine performance. Emphasis is placed on engine management and computer controls of ignition, fuel, and emissions systems relating to engine performance and driveability. This is a CORE course. **5 Credit Hours**

ASE 246 Automotive Emissions

This is an introductory course in automotive emission systems. Emphasis is placed on troubleshooting and repair of systems, subsystems, and components. **5 Credit Hours**

ASE 250 Dealership Work Experience

At the end of each on-campus period, the student returns to the sponsoring dealership to complete this segment of the program working full-time under the supervision of the dealership student work coordinator. He/she is expected to complete work assignments in the dealership that will reinforce and parallel the course work just completed at the college. Although indicated as 10 contact hours, students generally work on a full-time basis (40 hours per week) at the dealership. An evaluation of the student's in dealership work performance is completed by the dealership supervisor. **10 Credit Hours**

ASE 252 Dealership Work Experience

At the end of each on-campus period, the student returns to the sponsoring dealership to complete this segment of the program working full-time under the supervision of the dealership student work coordinator. He/she is expected to complete work assignments in the dealership that will reinforce and parallel the course work just completed at the college. Students generally work on a full-time basis (40 hours per week) at the dealership. An evaluation of the student's in dealership work performance is completed by the dealership supervisor.

10 Credit Hours

ASE 262 Dealership Work Experience

PREREQUISITE: As determined by college. At the end of each on-campus period, the student returns to the sponsoring dealership to complete this segment of the program working full-time under the supervision of the dealership student work coordinator. He/she is expected to complete work assignments in the dealership that will reinforce and parallel the course work just completed at the college. Students generally work on a full-time basis (40 hours per week) at the dealership. An evaluation of the student's in dealership work performance is completed by the dealership supervisor.

10 Credit Hours

ASE 263 Hybrid & Electric Vehicles

This course is designed to measure a technician's knowledge of the skills needed to diagnose both high and low voltabe electrical/electronic problems, as well as other supporting system problems on hybrid/electric vehicles. This course prepares students for the ASE Ligh Duty Hybrid/Electric Vehicle Specialist (LE) certification.

5 Credit Hours

ASE 284 CO-OP

PREREQUISITE: As required by college. These courses constitute a series wherein the student works on a part-time basis in a job directly related to automotive technology. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

10 Credit Hours

ASE 285 CO-OP

Course Description PREREQUISITE: As required by college. These courses constitute a series wherein the student works on a part-time basis in a job directly related to automotive technology. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

10 Credit Hours

ASE 286 CO-OP

PREREQUISITE: As required by college. These courses constitute a series wherein the student works on a part-time basis in a job directly related to automotive technology. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

10 Credit Hours