

AUTOMOTIVE TECHNOLOGY (602)

602-103 - Engine Repair 1

Develops skills needed to identify internal combustion engine components, operation, testing procedures, and engine cooling and lubrication systems. (Prerequisite: 602-107 Auto Service Fundamentals)

Credit for Prior Learning Available

2 Credit hours

18 Lecture hours

54 Other hours

602-104 - Brake Systems

Develops skills needed to diagnose, service and repair vehicle braking systems. (Electronic braking systems will be addressed in the Advanced Chassis course.) (Prerequisite: Completion of or concurrent enrollment in 602-107 Auto Service Fundamentals) Credit for Prior Learning Available

3 Credit hours

18 Lecture hours

36 Lab hours

54 Other hours

602-107 - Auto Service Fundamentals

Prepares students to perform light maintenance repairs such as oil changes and tires. Course orientates students to the college program, repair order writing, professionalism, service information systems, tools and equipment. (Prerequisites: Completion of or concurrent enrollment in 103-159 Computer Literacy – Microsoft Office; 890-101 College 101)

Credit for Prior Learning Available

2 Credit hours

18 Lecture hours

54 Other hours

602-109 - Auto Transmission/Transaxle

Develops skills needed to diagnose, service and repair automatic transmission/transaxles including overhaul procedures. (Prerequisite: 602-127 Electrical and Electronic Systems 2) Credit for Prior Learning Available

4 Credit hours

18 Lecture hours

72 Lab hours

54 Other hours

602-123 - Engine Repair 2

Develops skills needed to diagnose, service and repair internal combustion engines, including engine removal and/or replacement, head gasket and timing chain/belt repair, and other major engine repairs. (Prerequisite: 602-103 Engine Repair 1) Credit for Prior Learning Available

3 Credit hours

18 Lecture hours

108 Other hours

602-124 - Steering and Suspension Systems

Develops skills needed to diagnose, service and repair steering and suspension systems including wheel alignment procedures. (Electronic steering and suspension systems will be addressed in the Advanced Chassis course.) (Prerequisite: Completion of or concurrent enrollment in 602-107 Auto Service Fundamentals) Credit for Prior Learning Available

3 Credit hours

18 Lecture hours

36 Lab hours

54 Other hours

602-125 - Electrical and Electronic Systems 1

Introduces students to automotive electrical concepts. Students will build electrical circuits, use test equipment, read wiring diagrams, and repair wires and connectors. (Prerequisite: Completion of or concurrent enrollment in 602-107 Auto Service Fundamentals) Credit for Prior Learning Available

2 Credit hours

36 Lecture hours

602-127 - Electrical and Electronic Systems 2

Develops skills needed to diagnose, service and repair electrical and electronic systems including batteries, starting, charging, lighting systems, and computer control systems. (Prerequisite: 602-125 Electrical and Electronic Systems 1) Credit for Prior Learning Available

3 Credit hours

18 Lecture hours

72 Lab hours

602-128 - Electrical and Electronic Systems 3

Develops skills needed to diagnose, service and repair electrical and electronic systems including driver information, horn, wiper/washer, power accessories, air bag, anti-theft and radio systems. Introduces Advance Driver Assist Systems (ADAS). (Prerequisite: Completion of or concurrent enrollment in 602-127 Electrical and Electronic Systems 2) Credit for Prior Learning Available

3 Credit hours

18 Lecture hours

72 Lab hours

602-132 - Light Duty Diesel Engine Operation

Introduces design and operating characteristics of diesel engines. All fuel delivery and emission systems are covered. Lab work includes identification of systems, testing and diagnosis. (Prerequisite: 602-198 Engine Performance 2) Credit for Prior Learning Available

2 Credit hours

18 Lecture hours

36 Lab hours

602-137 - Hybrid and Electric Vehicle Systems 1

Introduces students to high voltage systems and components found in hybrid and electric vehicles. (Prerequisite: 602-198 Engine Performance 2) Credit for Prior Learning Available

2 Credit hours

18 Lecture hours

36 Lab hours

602-149 - Manual Drive Train and Axles

Develops skills needed to diagnose, service and repair clutches, manual transmissions/transaxle, differentials, four-wheel drive/all-wheel drive, and drive axles. (Prerequisite: 602-198 Engine Performance 2) Credit for Prior Learning Available

4 Credit hours

18 Lecture hours

72 Lab hours

54 Other hours

602-195 - Advanced Chassis Systems

Introduces skills needed to diagnose, service and repair antilock brake, vehicle stability control, electronic steering, suspension systems, and introduces Advance Driver Assist Systems (ADAS). (Prerequisites: 602-104 Brake Systems; 602-124 Steering and Suspension Systems; 602-128 Electrical and Electronic Systems 3) Credit for Prior Learning Available

2 Credit hours

18 Lecture hours

36 Lab hours

602-196 - Climate Control Systems

Develops skills needed to diagnose, service and repair climate control systems including heating, air conditioning, and ventilation. Students will acquire federal EPA609 certification. (Prerequisite: Concurrent enrollment in 602-198 Engine Performance 2) Credit for Prior Learning Available

3 Credit hours

18 Lecture hours

72 Lab hours

602-197 - Engine Performance 1

Develops skills needed to diagnose, service and repair engine management systems with an emphasis on ignition and fuel systems. (Prerequisites: Completion of or concurrent enrollment in 602-103 Engine Repair 1; 602-127 Electrical and Electronic Systems 2) Credit for Prior Learning Available

3 Credit hours

18 Lecture hours

36 Lab hours

54 Other hours

602-198 - Engine Performance 2

Develops skills needed to diagnose, service and repair engine management systems with an emphasis on emission systems. Students will diagnose and repair all engine performance concerns. (Prerequisite: 602-197 Engine Performance 1) Credit for Prior Learning Available

4 Credit hours

36 Lecture hours

72 Lab hours