Foundational Courses

TEAU 1101 Engine Repair I **2 Credits / 60 Clock-Hours**

This course covers the diagnosis and repair of the automotive gas engine mechanical systems and components. Students will learn how to diagnose and repair short block and cylinder heads, valve trains, and timing mechanisms.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform general engine diagnosis.
• Perform cylinder head and valve train diagnosis and repair.
• Demonstrate engine short block diagnosis and repair.
• Demonstrate lubrication and cooling system diagnosis and repair.

TEAU 1202 Automatic Transmissions and Transaxles I **2 Credits / 60 Clock-Hours**

This course covers operation and maintenance of automatic/manual transmissions and transaxles. Students will receive training on the diagnosis and repair of various types of clutches, drive axles, u-joints and CV axles.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Inspect and adjust fluids in manual and automatic transmissions.
• Properly service automatic and manual transmissions.
• Properly service differentials.

TEAU 1301 Manual Drivetrain and Axles I **2 Credits / 60 Clock-Hours**

This course covers operation and repair of manual shift transmissions and transaxles. Clutches, drive axles, u-joints, and CV axles are also covered.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform clutch diagnosis and repair.
• Perform transmission/transaxle diagnosis and repair.
• Perform drive shaft, universal and Constant Velocity (CV) joint diagnosis and repair.
• Perform drive axle and differential diagnosis and repair.
• Diagnose and repair four wheel drive/All wheel drive component.

TEAU 1410 Suspension and Steering I **2 Credits / 60 Clock-Hours**

This course covers the suspension and steering systems of a modern automobile. Students will receive training on the diagnosis and maintenance of shock absorbers, tie rods, ball joints, tires, McPherson struts, along with conventional steering boxes and rack and pinion steering systems. Practices and principles of basic wheel alignment will be discussed.

Objectives:
• Properly service the power steering system.
• Properly service the drive belts.
• Inspect and diagnose steering components.
• Inspect and diagnose suspension components.
• Describe wheel alignment adjustment procedures.

TEAU 1510 Brakes I **2 Credits / 60 Clock-Hours**

This course covers the operation, maintenance, and some repair of the brake system in a modern automobile. Students will receive training on brake operation and repair of mechanical and hydraulic portions of the brake system. Students will also be introduced to the topics of electronic controls used in anti-lock brake and traction control systems.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform hydraulic system diagnosis and repair.
• Perform drum brake diagnosis and repair.
• Perform disc brake diagnosis and repair.
• Learn diagnosis of power assist units.
• Demonstrate wheel bearing service.

TEAU 1610 Electrical I **2 Credits / 60 Clock-Hours**

This course covers the electrical system used in the modern automobile. The training covers electrical theory including Ohm’s law and hands on application of that theory. Students will receive training on types of electrical circuits, wiring diagrams, circuit construction, and electrical diagnostic procedures. Students will learn the use of specialized test equipment such as a multimeter and ammeter.

Objectives:
• Use wiring diagrams to diagnose electrical circuits.
• Use a digital multimeter to verify electrical circuit operation.
• Use Ohm's Law do diagnose electrical circuits.
• Properly repair wiring using a soldering iron.
• Safely disable supplemental restraint system.

TEAU 1701 Heating, Ventilation, and Air Conditioning I **2 Credits / 60 Clock-Hours**

This course covers the theory, operation, and diagnosis of the modern climate control system. Topics covered include compressors, system controls, and recycling of refrigerant gases.

Objectives:
• Demonstrate safe working habits and handling and recovery of refrigerant gases.
• Diagnose and repair A/C system.
• Demonstrate refrigeration system component diagnosis and repair.
• Perform heating, ventilation, and engine cooling systems diagnosis and repair.
• Diagnose and repair operating systems and related controls.
• Demonstrate proper refrigerant recovery, recycling, and handling.

Supplemental Courses Varies by Institution

Bridgerland

TEAU 2135 Engine Repair II **1 Credit / 30 Clock-Hours**

This course continues coverage of the diagnosis and repair of the automotive gas engine mechanical systems and components. Students will learn how to diagnose mechanical engine timing and variable valve timing. Use of the lab scope will be demonstrated.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Verify and repair engine mechanical timing.
• Use scan tools and lab scopes for diagnosis.

TEAU 2310 Manual Drive Trains and Axles II **1 Credit / 30 Clock-Hours**

This course continues the operation and repair of manual shift transmissions and transaxles. Clutches, drive axles, u-joints, and CV axles are also covered. Differential diagnosis and repair are also covered.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform drive axle, differential, and transfer case diagnosis and repair.
• Diagnose and repair all-wheel drive components.

TEAU 2450 Suspension and Steering III **2 Credits / 60 Clock-Hours**

This course covers the suspension and steering systems, including shock absorbers, tie rods, ball joints, tires, McPherson struts, and conventional steering boxes and rack-and-pinion systems. Wheel alignment is also covered.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform steering system diagnosis and repair.
• Perform suspension system diagnosis and repair.
• Perform wheel and tire diagnosis and repair.
• Apply wheel alignment theory, adjustment, and repair.

TEAU 2550 Brakes III **2 Credits / 60 Clock-Hours**

This course covers the theory of brake operation and repair of mechanical and hydraulic portions of the brake system. Also covered is the diagnosis and repair of the electronic controls used in anti-lock brake systems and traction control.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform hydraulic system diagnosis and repair.
• Perform drum- and disc-brake diagnosis and repair.
• Diagnose power-assist unit issues.
• Demonstrate wheel bearing service.
• Diagnose and repair anti-lock brake systems.

TEAU 2661 Electrical III **2 Credits / 60 Clock-Hours**

This course covers the electrical systems used in modern automobiles. The training covers electrical theory, including Ohm's law and hands-on application of that theory. Students will receive detailed training on starting/charging systems, lighting, and general electrical systems and accessories.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Diagnose and repair general electrical problems.
• Diagnose and repair onboard computer controls.
• Diagnose battery, starting, and charging systems.

TEAU 2670 Electrical IV **2 Credits / 60 Clock-Hours**

This course continues the study of the electrical systems used in the modern automobile. Students will receive detailed training on onboard electronic control computers and their associated systems. Students will learn to use specialized test equipment, such as scan tools, digital multimeters, and a lab scope.

Objectives:
• Utilize wiring diagrams.
• Diagnose and repair lighting systems.
• Repair electrical accessory and warning systems.

TEAU 2825 Engine Performance II **2 Credits / 60 Clock-Hours**

This course covers general engine diagnosis, tune-ups, and drivability repairs. The ignition system and fuel system will be covered in detail. Use of scan tools and lab scopes for diagnosis of engine control computers and related systems will also be covered.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform general engine evaluation.
• Perform ignition system diagnosis and repair.
• Perform fuel, air induction, and exhaust systems diagnosis and repair.
• Perform engine tune-up along with necessary mechanical adjustments.

TEAU 2860 Engine Performance III **2 Credits / 60 Clock-Hours**

This course continues general engine. The emission systems will be covered in detail. Emission system inspections and repairs will also be covered. Use of scan tools and lab scopes for diagnosis of engine control computers and related systems will also be covered.

Objectives:
• Demonstrate safe working habits.
• Diagnose computerized engine controls on OBDII systems.
• Diagnose emission control devices and system repair.

Davis

TEAU 1005 Introduction and Safety **1 Credit / 30 Clock-Hours**

Introduction and Safety introduces the basic uses and functions of the automotive shop. Throughout this course, you will study shop safety, including handling hazardous materials and disposal. In addition, you will demonstrate the proper use of the torque wrench, correct and accurate use of all automotive measuring tools, and safe operation of equipment, including jacks, jack stands, and vehicle hoists.

Objectives:
• Explain the importance of container labeling and material safety data sheets (MSDS) and to properly handle common, automotive industry materials.
• Describe the automotive shop layout.
• Identify:
o Classes of fires and the appropriate fire extinguishers to have present.
o Hazardous material located in the automotive shop.
o Common hand and power tools.
o Various threaded fasteners and perform thread repair.
o Major pieces of shop equipment.
• Demonstrate:
o Proper safety procedures using hoists, jacks, and jack stands.
o Ability to retrieve and use the various vehicle information sources.
o Ability to perform basic Maintenance Procedures.
o Safety requirements necessary to work in the automotive shop and on vehicles.
o Ability to use measuring tools.

TEAU 1040 Maintenance and Light Repair I **3 Credits / 90 Clock-Hours**

Students in this course are introduced to the basic theory and function of modern engine technology, automatic and manual transmission/transaxles, and basic electrical fundamentals. Students will maintain and service engines and drivetrain systems, and practice electrical testing procedures.

Objectives:
• Engine Systems Inspection, Service and Repair:
o Describe engine system fundamentals, including 4-stroke cycle, engine sizes and performance.
o Demonstrate basic engine testing, service and maintenance procedures of engine systems.
o Retrieve and record diagnostic OBDII generic power train Diagnostic Trouble Codes (DTCS).
• Automatic and Manual Transmission/Transaxle Inspection, Service, and Repair:
o Describe the Fundamentals of Automatic Transmission operation.
o Perform Maintenance, Diagnosis and Service Procedures.
o Describe Transmission/Transaxle Fundamentals, including clutch operation.
o Perform Inspection, Maintenance, Diagnosis and Service Procedures.
• Electrical:
o Explain basic electrical theory, types of circuits in the automobile.
o Demonstrate proper testing procedures using Digital Volt Ohmmeter (DVOM) as well as test lights.
o Perform battery tests and service procedures.
o Perform starter tests and service procedures.
o Describe lighting, gauges, horns, and wiper systems service and repair.

TEAU 1130 Engine Repair I **1 Credit / 30 Clock-Hours**

ASE Engine Repair I explores all aspects of diagnosis and repair and replacement of automotive engines, cylinder heads and valve trains, blocks, lubrication and cooling systems. This is the first part of a two-part series focusing on diagnosis and repair of lubrication and cooling systems. This course conforms to ASE/NATEF standards.

Objectives:
• Diagnose and repair lubrication systems.
• Diagnose and repair cooling systems.

TEAU 1230 Automatic Transmissions and Transaxles I **2 Credits / 60 Clock-Hours**

This is the first course in a two-course series. Students in this course will learn diagnosis and repair of automatic transmissions and transaxles inside and outside of a vehicle including proper maintenance techniques of automatic transmissions/transaxles. Students will also learn how to retrieve diagnostic code using a scan tool. This course conforms to Automotive Service Excellence (ASE) and National Automotive Technicians Education Foundation (NATEF) standards.

Objectives:
• Diagnose noise, vibration, harshness, and shift quality problems.
• Inspect, adjust, and replace transmission cables, linkage, and range sensors.
• Replace transmission fluid, flush, replace filter(s) and refill.
• Using scan tool retrieve transmission codes and look up diagnostic procedures related to these codes.

TEAU 1330 ASE Manual Drive Trains and Axles I **3 Credits / 90 Clock-Hours**

ASE Manual Drive Train and Axles I is the first course in a two-course series. During your time in this course, you will diagnosis and repair manual drive trains and axles including manual transmissions and transaxles, clutches, drive shafts, U-joints, CV joints, drive axles, four-wheel and all-wheel drive components. This course conforms to Automotive Service Excellence (ASE) and National Automotive Technicians Education Foundation (NATEF) standards.

Objectives:
• Diagnose and repair of drive trains.
• Diagnose and repair of drive shaft and half shaft, universal and constant-velocity (CV) joints.
• Diagnose and repair of clutches.

TEAU 1730 ASE Heating, Ventilation, and Air Conditioning I **1 Credit / 30 Clock-Hours**

ASE Heating, ventilation, and Air Conditioning I is the first course in a two-course series. In this course, you will practice diagnosing, operating, and repairing automotive heating and air conditioning systems, as well as safe handling, recovering, and recycling refrigerants. This course conforms to Automotive Service Excellence (ASE) and National Automotive Technicians Education Foundation (NATEF) standards.

Objectives:
• Explain the refrigeration cycle.
• Identify basic components of the Air Conditioning system.
• Diagnose and troubleshoot heater functions.
• Diagnose and troubleshoot heater and air conditioner ventilation ducting system.
• Diagnose the engine cooling system function.
• Remove and replace blower motors, ventilation ducts, linkages and control assemblies.
• Properly handle, recover, test, recycle, and disposal of all types of refrigerants.

TEAU 1900 ASE Light Duty Diesel **2 Credits / 60 Clock-Hours**

Students in this course will study the current fuels used in the automotive industry and the environmental concerns associated with fuels. Students will be introduced to fuel systems of light duty diesel vehicles. Students will have an opportunity to apply new skills in basic fuel systems, types, engines, engine aspiration systems, emission controls, and general vehicle emissions inspection, as well as an introduction to light duty diesels used in automotive applications.

Objectives:
• Describe properties of gasoline and diesel fuel.
• Explain octane and cetane ratings.
• Describe normal and abnormal combustion of gasoline and diesel fuel.
• Describe how vehicle emission gasses are formed and identify the emission control parts.
• Summarize the differences between gasoline and diesel engines.
• Explain operation principles of a diesel injections system.
• Properly replace fuel filter and bleed fuel system on diesel injection system.
• Describe the type of engine aspiration systems and how to safely work around them.
• Maintain a safe and clean working environment, clean shop as directed by instructor.

TEAU 2040 Maintenance and Light Repair II **3 Credits / 90 Clock-Hours**

ASE Automotive Maintenance and Light Repair II is a continuation of ASE Automotive Maintenance and Light Repair I and carries you forward in basic theory and function of suspension and steering systems, braking systems and heating ventilation and air conditioning fundamentals. During this course, you will continue to explore maintenance and servicing of engines and drivetrain systems.

Objectives:
• Engine Systems Inspection, Service and Repair:
o Describe engine system fundamentals, including 4-stroke cycle, engine sizes and performance.
o Demonstrate basic engine testing, service and maintenance procedures of engine systems.
o Retrieve and record diagnostic OBDII generic power train Diagnostic Trouble Codes (DTCS).
• Automatic and Manual Transmission/Transaxle Inspection, Service, and Repair:
o Describe the Fundamentals of Automatic Transmission operation.
o Perform Maintenance, Diagnosis and Service Procedures.
o Describe Transmission/Transaxle Fundamentals, including clutch operation.
o Perform Inspection, Maintenance, Diagnosis and Service Procedures.
• Electrical:
o Explain basic electrical theory, types of circuits in the automobile.
o Demonstrate proper testing procedures using Digital Volt Ohmmeter (DVOM) as well as test lights.
o Perform battery tests and service procedures.
o Perform starter tests and service procedures.
o Describe lighting, gauges, horns, and wiper systems service and repair.

TEAU 2130 Engine Repair II **6 Credits / 180 Clock-Hours**

ASE Engine Repair II continues training from ASE Engine Repair I including: diagnosis, repair, and replacement of automotive engines, cylinder heads and valve trains, blocks, and lubrication and cooling system repairs. Throughout your time in this course, you will also explore general engine diagnosis and all aspects of engine repair, including engine repair, cylinder head, valve train, and engine block assembles. You will also practice the safe and proper techniques for removal and reinstallation of engines. This course conforms to ASE/NATEF standards.

Objectives:
• Demonstrate proper removal, reinstallation and general diagnosis of an engine.
• Diagnose and repair of cylinder head and valve train.
• Diagnose and repair of engine block assemblies.
• List alternative fuel and advanced technology vehicles.

TEAU 2230 Automatic Transmissions and Transaxles II **5 Credits / 150 Clock-Hours**

This is the second course in a two-course series. Students in this course will learn diagnosis, removal, replacing and repair of automatic transmissions and transaxles inside and outside of a vehicle. This course conforms to Automotive Service Excellence (ASE) and National Automotive Technicians Education Foundation (NATEF) standards.

Objectives:
• Properly perform all adjustment that can be made on an automatic transmission while still in the vehicle in flat rate.
• Properly diagnose and service torque converter and front pumps.
• Properly perform stall speed test and stator clutch operation.
• Diagnose and inspect planetary gears, clutch packs, bands, and input and output shafts in automatic transmissions.
• Diagnose, inspect, remove, clean, repair, and install transmission valve bodies and other hydraulic parts.
• Properly remove, inspect, clean, rebuild, and reinstall of automatic transmission and automatic transaxles in flat rate.

TEAU 2330 ASE Manual Drive Trains and Axles II **3 Credits / 90 Clock-Hours**

ASE Manual Drive Train and Axles II is the second course in a two-course series. Throughout this course, you will diagnose and repair manual drive trains and axles including manual transmissions and transaxles, clutches, drive shafts, U-joints, CV joints, drive axles, four-wheel and all-wheel drive components. This course conforms to Automotive Service Excellence (ASE) and National Automotive Technicians Education Foundation (NATEF) standards.

Objectives:
• Diagnose and repair of drive trains.
• Diagnose and repair of drive shaft and half shaft, universal and constant-velocity (CV) joints.
• Diagnose and repair of clutches.

TEAU 2410 Suspension and Steering II **4 Credits / 120 Clock-Hours**

In this course, students will receive training in all aspects of diagnosis and repair of automotive suspension and steering systems. Instruction will be given in alignments, diagnosing and replacement of steering components, diagnosis of tire wear, and alignment related problems. This course conforms to ASE/NATEF standards.

Objectives:
• Inspect, diagnose, and repair wheel bearings.
• Inspect, diagnose, and repair steering systems.
• Inspect and replace or repair power steering assist system components.
• Inspect, diagnose, adjust, and repair wheel alignment.

TEAU 2510 ASE Brake Systems II **3 Credits / 90 Clock-Hours**

This course conforms to ASE/NATEF standards. ASE Brake Systems II explores all aspects of diagnosis and repair of automotive brake systems. Throughout this course, you will be introduced to brake functions, anti-lock brake functions, diagnosing of all aspects of brakes, and proper service of brake and their related components. This is the second part of the two-course series. This part focuses on inspection, adjustment, and repair of drum and disc brakes.

Objectives:
• Inspect, diagnose and repair drum brakes.
• Inspect, diagnose and repair disk brakes.
• Inspect, adjust and repair parking brakes.
• Inspect and diagnose power assist brake units.
• Inspect, diagnose and repair anti-lock brake systems.

TEAU 2630 ASE Electrical/Electronic Systems II **2 Credits / 60 Clock-Hours**

This course conforms to ASE/NATEF standards. In this course, students will receive detailed training in all aspects of Automotive Electricity and Electronics. Instruction is given in electrical theory, Ohms law, troubleshooting, diagnosis, and functions of all Automotive Electrical/Electronic systems. This is the second of a two-course series. This course focuses on Ohms law, series and parallel circuits, use of wiring diagrams to inspect, test and diagnose electrical circuits.

Objectives:
• Use a Digital Volt Ohm Meter (DVOM) to diagnose lighting systems.
• Diagnose, repair, and replace all vehicle lighting systems.

TEAU 2730 ASE Heating, Ventilation, and Air Conditioning II **2 Credits / 60 Clock-Hours**

ASE Heating, Ventilation, and Air Conditioning II is the second course in a two-course series. In this course, you will study diagnosis, operation, and repair of automotive heating and air conditioning systems including operation and repair of air conditioning systems and related controls. You will explore safe handling, recovery and recycling of refrigerants. This course conforms to Automotive Service Excellence (ASE) and National Automotive Technicians Education Foundation (NATEF) standards. In order to successfully complete the course, you must pass the Section 609 Certification.

Objectives:
• Recognize appropriate pressure and temperatures of properly working automotive air conditioning systems.
• Properly recover, recycle, and recharge air conditioning systems.
• Properly evacuate, leak test and determine the “state of charge” of an air conditioning system.
• Remove and replace air conditioning components such as hoses, fittings, metering devices, receiver dryers, accumulators, condensers evaporators and pressure switches.
• Remove and replace air conditioning compressors and clutch assemblies.
• Diagnose air conditioning and heating system control modules and related systems.

TEAU 2830 Engine Performance II **5 Credits / 150 Clock-Hours**

This course conforms to ASE/NATEF standards. During this course, you will receive detailed training in all aspects of diagnosis and repair of automotive engine performance systems. You will explore all aspects of engine performance including but not limited to fuel injection systems, ignition systems, computer controls, emissions systems, and exhaust systems. This is the second of a two-course series. This course focuses on all aspects of air induction and exhaust systems, fuel systems, emission system, and onboard computer powertrain controls.

Objectives:
• Inspect, diagnose, and repair general fuel supply and delivery systems.
• Diagnose and Repair Intake and Exhaust Systems.
• Inspect, diagnose, and repair general emission control systems.
• Operate a 5-gas exhaust analyzer, and interpret and analyze exhaust 5 gas emission.
• Inspect, diagnose with and without the use of a scan tool, and repair engine computer control systems (On Board Diagnostics I).
• Operate a lab scope and analyze electronic components and devices oscilloscope waveforms.
• Inspect, diagnose, and repair electronic fuel injection systems.
• Inspect, diagnose, and repair On Board Diagnostic II systems.

TEAU 2901 Automotive Technology Special Projects I **1 Credit / 30 Clock-Hours**

Automotive Technology Special Project I provides the opportunity to practice previously learned skills. You will complete approved and supervised in-class work experiences as you prepare for work in the automotive technology industry.

Objectives:
• Perform maintenance repairs and service on special projects as determined by the instructor to meet course requirements.

TEAU 2902 Automotive Technology Special Projects II **2 Credits / 60 Clock-Hours**

Automotive Technology Special Project II provides the opportunity to practice previously learned skills. You will complete approved and supervised in-class work experiences as you prepare for work in the automotive technology industry.

Objectives:
• Perform maintenance repairs and service on special projects as determined by the instructor to meet course requirements.

TEAU 2903 Automotive Technology Special Projects III **3 Credits / 90 Clock-Hours**

Automotive Technology Special Project III provides the opportunity to practice previously learned skills. You will complete approved and supervised in-class work experiences as you prepare for work in the automotive technology industry.

Objectives:
• Perform maintenance repairs and service on special projects as determined by the instructor to meet course requirements.

TEAU 2990 Automotive Technology Externship Guide **2 Credits / 90 Clock-Hours**

The Automotive Technology externship experience helps you transition from a student into a professional role by allowing you to demonstrate the knowledge, skills and professional attributes learned in the program while working in a professional setting. This experience takes place under the supervision of a qualified site supervisor and includes skill practice and evaluation. Program faculty periodically visit the externship site to evaluate your progress and performance. All program course work must be completed prior to enrolling in this course.

Objectives:
• Demonstrate basic diagnostic testing, service, and maintenance procedures on a variety of automotive systems.
• Demonstrate professional and appropriate customer service.

Dixie

TEAU 1070 Introduction to Automotive Technology **2 Credits / 60 Clock-Hours**

No description available.

TEAU 1171 Automotive Engine Repair **4 Credits / 120 Clock-Hours**

Provides theory and hands-on instruction in automotive and light duty diesel engine repair, following ASE Education Foundation Master-Level standards.

Objectives:
• Maintain vehicle safety during engine repairs.
• Identify components and configurations of automotive and light duty diesel engines.
• Maintain automotive and light duty diesel engines and systems.
• Maintain automotive and light duty diesel cooling and lubrication systems.

TEAU 1201 Automatic Transmissions **2 Credits / 60 Clock-Hours**

This course covers the automatic transmission and transaxles used in today’s cars and light trucks. Students will learn to diagnose and repair mechanical and hydraulic systems along with computer controls.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform general transmission and transaxle diagnosis.
• Perform transmission and transaxle maintenance and adjustment.
• Perform transmission and transaxle on□vehicle repair.
• Demonstrate proper off□vehicle transmission and transaxle repair.

TEAU 1370 Manual Transmissions and Drivetrains **2 Credits / 60 Clock-Hours**

No description available.

TEAU 1710 HVAC **2 Credits / 60 Clock-Hours**

This course covers the theory, operation, and diagnosis of the modern climate control system. Topics covered include compressors, system controls, and recycling of refrigerant gases.

Objectives:
• Demonstrate safe working habits and handling and recovery of refrigerant gases.
• Diagnose and repair A/C system.
• Demonstrate refrigeration system component diagnosis and repair.
• Perform heating, ventilation, and engine cooling systems diagnosis and repair.
• Diagnose and repair operating systems and related controls.
• Demonstrate proper refrigerant recovery, recycling, and handling.

TEAU 2005 Hybrid and Electric Vehicles **2 Credits / 60 Clock-Hours**

No description available.

TEAU 2630 ASE Electrical/Electronic Systems II **2 Credits / 60 Clock-Hours**

This course conforms to ASE/NATEF standards. In this course, students will receive detailed training in all aspects of Automotive Electricity and Electronics. Instruction is given in electrical theory, Ohms law, troubleshooting, diagnosis, and functions of all Automotive Electrical/Electronic systems. This is the second of a two-course series. This course focuses on Ohms law, series and parallel circuits, use of wiring diagrams to inspect, test and diagnose electrical circuits.

Objectives:
• Use a Digital Volt Ohm Meter (DVOM) to diagnose lighting systems.
• Diagnose, repair, and replace all vehicle lighting systems.

TEAU 2921 OEM Training I (Introduction to Automotive) **2 Credits / 60 Clock-Hours**

No description available.

TEAU 2922 OEM Training II (Under Car) **2 Credits / 60 Clock-Hours**

No description available.

TEAU 2923 OEM Training III (Under Hood) **2 Credits / 60 Clock-Hours**

No description available.

TEAU 2924 OEM Training IV (Drivetrains) **2 Credits / 60 Clock-Hours**

No description available.

Mountainland

TEAU 1805 Engine Performance I **2 Credits / 60 Clock-Hours**

The Engine Performance I course provides theory and hands-on instruction in automotive engine performance while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe engine performance maintenance and repairs.
• Identify and interpret engine performance concerns; determine needed action.
• Inspect and repair abnormal engine noises or vibration concerns; determine needed action.
• Inspect and repair automotive ignition systems; determine needed action.
• Inspect and repair automotive fuel systems; determine needed action.
• Inspect and repair automotive air induction systems as it relates to engine performance.
• Inspect and repair automotive exhaust systems as it relates to engine performance.

TEAU 2101 Engine Repair II **1 Credit / 30 Clock-Hours**

Engine Repair II builds upon the foundational training from ASE Engine Repair I, focusing on the diagnosis, repair, and replacement of automotive engines, cylinder heads, valve trains, engine blocks, and lubrication and cooling systems.

Objectives:
• Explain engine design principles, analyze troubleshooting methods, and perform maintenance on engine components.
• Demonstrate proper engine removal, reinstallation, and general diagnostic procedures.
• Diagnose and repair cylinder head and valve train components.
• Diagnose and repair engine block assemblies.

TEAU 2150 Engine Repair III **2 Credits / 60 Clock-Hours**

Engine Repair III builds on prior training with advanced instruction in diagnosing, repairing, and reassembling engine components, including cylinder heads, valve trains, engine blocks, and cooling and lubrication systems. Emphasis is placed on safe engine removal and reinstallation. The course aligns with ASE/NATEF standards and prepares students for the ASE A1 certification exam.

Objectives:
• Demonstrate proper engine removal, reinstallation, and general diagnostic procedures.
• Diagnose and repair cylinder head and valve train components.
• Diagnose and repair engine block assemblies.
• Identify alternative fuel and advanced technology vehicles.
• Diagnose and repair variable valve timing and advanced engine features.
• Inspect and troubleshoot oil delivery circuits, bushings, planetary gear assembly, case bores, clutch drum, piston, etc.

TEAU 2210 Automatic Transmissions and Transaxles II **2 Credits / 60 Clock-Hours**

This course provides students with the knowledge and skills required to identify and understand the components of transmission and transaxle systems. Students will learn to inspect, maintain, and repair these systems, gaining hands-on experience with both traditional and continuously variable transmissions. The course also covers the unique characteristics of hybrid vehicle drive trains. Additionally, students will be trained to inspect, measure, replace, overhaul, and assemble transmissions and transaxles.

Objectives:
• Identify automatic transmission and transaxle components and configurations.
• Analyze transmission/transaxle concerns, differentiating between engine performance and transmission/transaxle concerns.
• Diagnose and repair transmission fault codes and performance concerns.
• Diagnose fluid condition and loss and inspect for leaks.
• Diagnose pressure concerns in a transmission, using hydraulic principles.
• Drain and replace fluid and filters, and inspect, replace or align powertrain mounts.
• Perform diagnosis and repair of electrical faults and reprogram and re-calibrate software.

TEAU 2260 Automatic Transmissions and Transaxles III **1 Credit / 30 Clock-Hours**

This course develops student proficiency in diagnosing, servicing, and overhauling automatic transmission and transaxle systems, including CVTs and hybrid drivetrains. Emphasis is placed on hands-on application and comprehensive system understanding in preparation for the ASE A2 certification exam.

Objectives:
• Assemble transmission/transaxle.
• Inspect and troubleshoot oil delivery circuits, bushings, planetary gear assembly, case bores, clutch drum, piston, etc.
• Identify and analyze automatic transmission and transaxle components and configurations, distinguishing related concerns from engine performance issues.
• Diagnose and repair transmission system faults, including fluid leaks, pressure issues, electrical malfunctions, and fault codes using appropriate diagnostic tools and procedures.
• Perform maintenance and service procedures, including fluid and filter replacement, powertrain mount inspection, and software reprogramming and calibration.
• Inspect, troubleshoot, and assemble internal transmission components, such as oil circuits, bushings, planetary gear sets, and clutch assemblies, in preparation for the ASE A2 certification exam.

TEAU 2301 Manual Drive Trains and Axles II **2 Credits / 60 Clock-Hours**

This course offers students the knowledge and hands-on experience necessary to inspect, diagnose, and repair manual drivetrain and axle systems in both automobiles and four-wheel/all-wheel drive vehicles. As the second course in a two-part series, it prepares students for the ASE A3 certification exam, which will be administered upon completion.

Objectives:
• Identify drivetrain and axle components and identify drive train concerns and action.
• Check and adjust clutch master cylinder fluid level, check for leaks, and use proper fluids.
• Diagnose clutch noise, binding, slippage, pulsation and chatter to determine needed action; bleed clutch hydraulic system.
• Inspect flywheel and ring gear for wear and determine needed action.
• Disassemble, inspect, clean and reassemble internal transmission/transaxle components.
• Inspect and service/replace bearings, hubs and seals, and shafts, yokes boots, and universal/CV joints.
• Inspect and repair differential housings, pinion and ring gear, drive axles.
• Diagnose, test, adjust and/or replace electrical components of four-wheel or all-wheel drive systems.
• Disassemble, service and reassemble transfer case components.

TEAU 2710 Heating, Ventilation, and Air Conditioning II **1 Credit / 30 Clock-Hours**

The Automotive HVAC II course is the second in a two-part series focused on heating, ventilation, and air conditioning (HVAC) systems in cars and light trucks. Students will receive both theoretical instruction and hands-on training in shop safety, electrical fundamentals, and mechanical and electronic HVAC components. The course includes manufacturer-supported web-based training, ASE practice testing, and a final exam. Students will also prepare for and complete the EPA Section 609 Certification exam and take the ASE A7 certification exam at the conclusion of the course.

Objectives:
• Identify and discuss the function of the heating, ventilation, and air conditioning systems.
• Identify HVAC components and configurations.
• Perform A/C system performance tests, and determine needed actions.
• Inspect, remove and replace A/C systems.
• Inspect engine cooling and heating systems, hoses, pipes, control valves and heater core. Repair or replace, as needed.
• Inspect HVAC ducts, doors, hoses, cabin filters, and outlets to determine needed action.
• Use and maintain refrigerant handling equipment.
• Identify A/C system refrigerants. Test, recover, evacuate, and charge the A/C system.
• Recycle, label and store refrigerant using proper processes.
• Diagnose and repair climate control fault codes.

TEAU 2805 Engine Performance II **3 Credits / 90 Clock-Hours**

Students will identify and interpret various engine performance concerns and will determine needed action. They will learn to correct camshaft timing, perform engine manifold pressure tests, and perform tests on cylinders to determine needed adjustments and repairs. Students will also analyze computerized controls to determine needed adjustments. Students will learn to repair and replace the ignition system, fuel filter, exhaust systems, and turbocharger systems, as well as emission control systems. The ASE A8 certification exam will be taken at the conclusion of this course.

Objectives:
• Verify proper engine cooling system operation. Determine any needed actions.
• Verify correct Camshaft timing and adjust as necessary.
• Interpret engine performance concerns, including engine noises or vibration concerns.
• Perform engine manifold pressure test, cylinder power balance test, cylinder cranking and running compression tests, and cylinder leaking tests.
• Determine needed action.
• Diagnose engine mechanical, electrical, electronic, fuel, and ignition concerns. Determine needed action.
• Inspect, test, and adjust engine computerized controls.
• Reprogram or recalibrate the powertrain/engine control module.
• Inspect, test, and/or replace ignition components. Reprogram as necessary.
• Identify, test and repair components of the Ignition, Fuel, Air Induction and exhaust systems.
• Inspect and service the Emissions Control Systems.
• Utilize DSO lab scopes and GMM to diagnose complex drivability concerns.
• Utilize 5 gas analyzers to diagnose emissions component concerns.
• Utilize UV smoke detection to determine evaporative emission system concerns.

Ogden-Weber

TEAU 2515 Brakes II **2 Credits / 60 Clock-Hours**

This course covers the theory of brake operation and repair of mechanical and hydraulic portions of the brake system. Also covered are the diagnosis and repair of the electronic controls used in antilock brake systems.

Objectives:
· Demonstrate safe working habits and handling of hazardous materials.
· Perform hydraulic system diagnosis and repair.
· Perform drum and disc brake diagnosis and repair.
· Diagnose and repair power assist units.
· Demonstrate wheel bearing service.
· Diagnose and repair antilock brake systems.

TEAU 2415 Suspension and Steering II **2 Credits / 60 Clock-Hours**

This course covers the suspension and steering systems which include shock absorbers, tie rods, ball joints, tires, McPherson struts, along with conventional steering boxes and rack and pinion steering systems.

Objectives:
· Demonstrate safe working habits and handling of hazardous materials.
· Perform steering system diagnosis and repair.
· Perform suspension system diagnosis and repair.
· Explain wheel alignment theory and perform adjustment and repair.
· Perform wheel and tire diagnosis and repair.

TEAU 2610 Electrical II **2 Credits / 60 Clock-Hours**

This course covers the electrical system used in the modern automobile. The training covers electrical theory including ohm's law and hands on application of that theory. Students will receive detailed training on onboard electronic control computers and their associated systems, lighting, starting/charging systems, and general electrical systems and accessories. Students will learn the use of specialized test equipment such as digital multimeter and a lab scope.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Diagnose and repair general electrical problems.
• Diagnose and repair onboard computer controls.
• Diagnose battery, starting, and charging systems.
• Utilize wiring diagrams.
• Diagnose and repair lighting systems.
• Demonstrate electrical accessory and warning systems repair.

TEAU 1805 Engine Performance I **2 Credits / 60 Clock-Hours**

The Engine Performance I course provides theory and hands-on instruction in automotive engine performance while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe engine performance maintenance and repairs.
• Identify and interpret engine performance concerns; determine needed action.
• Inspect and repair abnormal engine noises or vibration concerns; determine needed action.
• Inspect and repair automotive ignition systems; determine needed action.
• Inspect and repair automotive fuel systems; determine needed action.
• Inspect and repair automotive air induction systems as it relates to engine performance.
• Inspect and repair automotive exhaust systems as it relates to engine performance.

TEAU 2835 Engine Performance II **2 Credits / 60 Clock-Hours**

This course covers general engine diagnosis along with tuneup and drivability repair. The ignition system, fuel system, and emission systems will be covered in detail. Use of scan tools and lab scopes for diagnosis of engine control computers and related systems will also be covered.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform general engine evaluation.
• Diagnose computerized engine controls on OBDII systems.
• Perform ignition system diagnosis and repair.
• Perform fuel, air induction, and exhaust systems diagnosis and repair.
• Diagnose emission control devices and system repair.
• Perform engine tuneup along with necessary mechanical adjustments

TEAU 2115 Engine Repair II **2 Credits / 60 Clock-Hours**

Engine Repair II continues training from Engine Repair I including: diagnosis, repair, and replacement of automotive engines, cylinder heads and valve trains, blocks, and lubrication and cooling system repairs. Throughout your time in this course, you will also explore general engine diagnosis and all aspects of engine repair, including engine repair, cylinder head, valve train, and engine block assembles. You will also practice the safe and proper techniques for removal and reinstallation of engines. This course conforms to ASE/NATEF standards.

Objectives:
• Demonstrate proper removal, reinstallation and general diagnosis of an engine.
• Diagnose and repair of cylinder head and valve train.
• Diagnose and repair of engine block assemblies.
• List alternative fuel and advanced technology vehicles.

TEAU 1760 Advanced HVAC and Critical Workplace Skills **2 Credits / 60 Clock-Hours**

This course will analyze operation and diagnosis of automatic climate controls and will review all the training necessary to successfully pass the ASE Heating and Air Conditioning A7. The last half of this course will develop essential workplace skills needed to maintain gainful and satisfying employment in the automotive industry. This will include discussing relationships and diversity, adapting to change, overcoming industry stereotypes, and personal responsibility. In addition, students will create a resume and receive job interview guidelines.

Objectives:
- Perform advanced HVAC system diagnosis and repair.
- Demonstrate knowledge of proper shop etiquette
- Practice proper job seeking techniques
- Demonstrate knowledge of ASE style test questions

Salt Lake

TEAU 1060 Safety and Introduction to Automotive Service **4 Credits / 120 Clock-Hours**

The Safety and Intro to Auto Service course provides proper knowledge of practices in safety to help establish safe working habits that would reflect industry standards, introduces the student to careers in the automotive field, ASE certifications, and service of the following systems: engines, electrical, brakes, steering and suspension, HVAC, transmissions, drivetrain, and engine performance.

Objectives:
• Maintain personal safety and proper lifting procedures.
• Identify occupational rules and regulations.
• Identify and use personal protective equipment.
• Identify and use hand and power tools.
• Identify and properly dispose of hazardous waste.
• Identify and use metric and standard measuring systems.
• Identify and inspect engine systems.
• Identify and inspect starting and charging systems.
• Identify and inspect brake systems.
• Identify and inspect the steering and suspension systems.
• Identify and inspect the HVAC system.
• Identify and inspect transmission and drivetrain systems.

TEAU 1155 Engine Repair **4 Credits / 120 Clock-Hours**

The Engine Repair course teaches theory and hands-on instruction in automotive engines while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe engine maintenance and repairs.
• Identify engine components and configurations.
• Identify and maintain the automotive engine and its systems.
• Identify and maintain the cooling system.
• Identify and maintain the lubrication system.
• Identify and repair an engine, including overhaul.

Snow

TEAU 1000 Safety and Basics **1 Credit / 30 Clock-Hours**

The Safety and Basics course provides proper knowledge of practices in safety to help establish working habits that would reflect industry standards in a safe working environment.

Objectives:
• Maintain personal safety and proper lifting procedures.
• Identify occupational rules and regulations.
• Identify and use personal protective equipment.
• Identify and use hand and power tools.
• Identify and properly dispose of hazardous waste.
• Identify and use metric and standard measuring systems.

TEAU 1010 Intro to Automotive Technology I **2 Credits / 60 Clock-Hours**

The Intro to Automotive Technology I course introduces the student to careers in the automotive field, ASE certifications and engine design and operation.

Objectives:
• Identify and study engine theory, design and operation.
• Identify and repair the lubrication system and its components.
• Identify and repair the cooling system and its components.
• Identify and repair the fuel system and its components.

TEAU 1015 Intro to Automotive Technology II **2 Credits / 60 Clock-Hours**

The Intro to Automotive Technology II course introduces the student to automotive electrical, ignition, brake, suspension, and steering systems.

Objectives:
• Identify and study electrical theory, starting and charging systems.
• Identify and repair the ignition system and its components.
• Identify and repair the brake system and its components.
• Identify and repair the steering and suspension systems and their components.

TEAU 1100 Engine Repair **3 Credits / 90 Clock-Hours**

The Engine Repair course teaches theory and hands-on instruction in automotive engines while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe engine maintenance and repairs.
• Identify engine components and configurations.
• Identify and maintain the automotive engine and its systems.
• Identify and maintain the cooling system.
• Identify and maintain the lubrication system.

TEAU 1200 Automatic Transmissions **4 Credits / 120 Clock-Hours**

The Automatic Transmission course teaches theory and hands-on instruction in automatic transmissions and transaxles while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe automatic transmission maintenance and repairs.
• Identify automatic transmission components and configurations.
• Identify and maintain the automatic transmission and its systems.
• Identify and repair automatic transmissions, including overhaul.
• Identify and repair the electronic components of automatic transmissions.

TEAU 1300 Manual Drivetrain and Axles **4 Credits / 120 Clock-Hours**

The Manual Drivetrain and Axles course teaches theory and hands-on instruction on automotive manual drivetrain and axles while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe manual drivetrain and axles maintenance and repairs.
• Identify manual drive train and axles components and configurations.
• Identify and maintain the manual drivetrain, axles, clutch systems, and manual transmissions.
• Identify and maintain the drive shaft, half shaft, and all types of CV joints.
• Identify and maintain ring and pinion gears, differentials, and drive axles.
• Identify and maintain four-wheel and all-wheel drive systems.

TEAU 1700 Heating, Ventilation, and Air Conditioning (HVAC) **3 Credits / 90 Clock-Hours**

The Heating, Ventilation, and Air Conditioning course teaches theory and hands-on instruction on automotive HVAC while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe automotive HVAC and repairs.
• Identify and repair the refrigeration systems and components.
• Identify and repair the heating, ventilation, and engine cooling system.
• Identify and repair operating systems and controls relating to automotive HVAC.
• Identify and demonstrate use of refrigerant recovery, recycling, and handling equipment and procedures.

TEAU 2000 Hybrid and Electric Vehicles **1 Credit / 30 Clock-Hours**

The Hybrid and Electric Vehicle course teaches theory and hands-on instruction in the basics of hybrid and electrical vehicles.

Objectives:
• Maintain vehicle safety through safe hybrid and electric vehicle repairs.
• Identify and use proper personal protective equipment.
• Identify common components of hybrid and electric vehicles.
• Identify and repair operating systems and controls on hybrid and electric vehicles.
• Identify and demonstrate proper precautions around high voltage.

TEAU 2600 Electrical II **4 Credits / 120 Clock-Hours**

The Electrical II course delves deeper into advanced topics and tools such as electronic control systems and digital communication networks. Students will master complex diagnostic procedures and emerge ready to tackle the intricate electrical challenges posed by modern vehicles.

Objectives:
• Maintain vehicle safety through safe electrical maintenance and repairs.
• Retrieve and record DTCs, OBD monitor status, and freeze frame data; clear codes and data when directed.
• Diagnose the cause(s) of excessive key-off battery drain (parasitic draw); determine needed action.
• Test and measure circuit using an oscilloscope and/or graphing multimeter (GMM); interpret results; determine needed action.
• Identify and repair instrument cluster and driver information systems.
• Identify and repair body electrical systems.
• Test and repair electrical related systems using electronic testing industry specific equipment.

TEAU 2800 Engine Performance II **4 Credits / 120 Clock-Hours**

The Engine Performance II course provides theory and hands-on instruction in automotive engine performance while following standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe engine performance maintenance and repairs.
• Identify and repair computerized controls related to engine performance.
• Identify and repair emission control systems related to engine performance.
• Test and repair engine performance systems using industry specific electronic testing equipment.

Southwest

TEAU 1050 Workshop Practices and Safety **1 Credit / 30 Clock-Hours**

In Workshop Practices and Safety, students will be introduced to the various tools and equipment to be used in the Automotive Industry. Additionally, students will complete an in-depth automotive specific safety training program. This course meets the required tasks in preparation for successful certification in ASE (Automotive Service Excellence).

Objectives:
• Practice shop safety.
• Use and understand a digital multimeter and how to test basic electrical circuits.
• Demonstrate working knowledge of automobile information systems.
• Use and understand automotive computer diagnostic tools and equipment.
• Use and read precision measurement tools.

TEAU 1055 Math for Automotive Technicians **2 Credits / 60 Clock-Hours**

Mathematical skills form the foundation of automotive design and operation. Math for Automotive Technicians, is designed to provide realistic problems technicians will face including: whole numbers, decimals, fractions, geometry, angle measurement, metric system, integers, ratios, business statistic, repair orders, automotive engine systems, automotive electrical systems, automotive drivetrain, automotive chassis, and automotive HVAC systems.

Objectives:
• Calculate differential gear ratios, engine bore and stroke, electrical current flow, voltage, resistance and many other components and systems found in the modern automobile.
• Determine weights of gasses needed in the air conditioning systems and fuel systems.
• Determine fuel composition, and diagnose and repair vehicles.

TEAU 1140 Engine Repair **5 Credits / 150 Clock-Hours**

The Engine repair course conforms to ASE/NATEF standards. In this course, you will work with both classroom instruction and hands-on lab training. You will evaluate the design and operation of internal combustion engines, diagnosis of engine operation, failure analysis of engine components, and complete engine machining and rebuilding procedures. When you have completed this course, you will be eligible to take the exam for ASE certification.

Objectives:
• Diagnose internal engine failures.
• Remove, repair/rebuild, and reinstall modern automobile engines.
• Demonstrate a working knowledge of modern hybrid drive systems.

TEAU 1240 Automatic Transmissions and Transaxles **4 Credits / 120 Clock-Hours**

Automotive Automatic Transmission and Transaxles is an-in depth clinical based course. Throughout the course, you will practice safety concerns when working on transmissions and drivetrain components, power flow through a planetary gear set, clutch pack diagnosis and operation, hydraulic circuits, removal and rebuilding procedures for automatic transmissions and transaxles, and torque converter operation. When you have completed this course, you will be eligible to take the certification exam in ASE (Automotive Service Excellence) Automotive Automatic Transmissions and Transaxles.

Objectives:
• Diagnose automatic transmissions and transmission control systems.
• Remove, repair/rebuild and replace automatic transmissions and related systems.
• Diagnose and repair automatic hybrid drive systems.

TEAU 1340 Manual Drive Train and Axles **3 Credits / 90 Clock-Hours**

Manual Drive Trains is an-in depth clinical based course that conforms to the ASE/NATEF standards. Throughout the course, you will concentrate on topics such as safety concerns when working on drive train components, power flow through a gear set, clutch diagnosis and operation, manual gearbox diagnosis, removal and rebuilding procedures for manual transmissions, 4-wheel drive systems. When you have completed this course, you will be prepared to take the certification exam in ASE (Automotive Service Excellence) Automotive Manual Drive Train Systems.

Objectives:
• "Demonstrate a working knowledge of manual drivetrains and axle systems.
• Diagnose, remove, repair, and replace manual transmission and components.
• Remove driveshafts, replace universal joints and repair four-wheel drive systems.
• Diagnose and repair electronically controlled transmission systems.

TEAU 1740 Heating and Air Conditioning **3 Credits / 90 Clock-Hours**

Automotive Heating and Air Conditioning is an-in depth industry-based course that meets ASE/NATEF standards. In this course you will examine safety concerns when working with refrigerants and superheated liquids, construction and operation systems, testing and diagnosis of automotive passenger comfort systems. When you have completed this course, you will be prepared to take the certification exam in ASE (Automotive Service Excellence) Automotive Heating and Air Conditioning systems.

Objectives:
• Demonstrate a working knowledge of temperature vs. pressure in HVAC systems.
• Diagnose and repair engine cooling and passenger comfort systems.
• Describe the operating principles found in mobile HVAC systems.
• Demonstrate a working knowledge of mobile HVAC system components.
• Diagnose and repair mobile refrigerant systems.
• Diagnose and repair compressors and components.
• Use on-board diagnostic systems to control and test mobile HVAC systems.

TEAU 2640 Electrical II **4 Credits / 120 Clock-Hours**

Automotive Electrical Systems II is an-in depth industry-based course including these units of study: safety concerns when working on electrical systems, advanced wiring and schematics, testing and diagnosis of digital automotive systems, testing and diagnosis of automobile safety systems. This course meets the required tasks in preparation for successful certification in ASE (Automotive Service Excellence) Automotive Electrical Systems.

Objectives:
• Diagnose and repair electronic systems through electric theory and practice.
• Diagnose on-board computers and networked systems.
• Diagnose, repair and program vehicle communication systems.
• Diagnose, repair, and determine preparation of airbag and restraint systems.
• Safely operate and diagnose hybrid drive systems.

TEAU 2840 Engine Performance II **4 Credits / 120 Clock-Hours**

Engine Performance II is an in-depth practical course dealing with advanced automotive systems. In this course, you will be introduced to ECU operations and controls, programming and reprogramming ECU systems, networking systems, and other systems and components necessary to maintain proper operation of new vehicles. When you have completed this course, you will be eligible to take the certification exam in ASE (Automotive Service Excellence) Engine Performance.

Objectives:
• Safely and appropriately use the tools and theories designed to repair high tech vehicles.
• Use vehicle on-board diagnostics, and emission testing to repair vehicles to manufacture operating specifications.
• Diagnose, and repair on-board computers, sensors, ignition, and fuel systems.
• Correctly find, and repair emission and evaporative system failures.

TEAU 2910 Manufacturer Automotive Service Training – General Motors **4 Credits / 120 Clock-Hours**

GM STEP provides graduating students an opportunity to be hired as entry-level Maintenance Light Repair (MLR) technicians or other roles within the dealer they partnered with.

Objectives:
• Demonstrate competency in all eight ASE areas of emphasis will be covered: engine repair, electrical systems, heating and air conditioning, brake systems, steering and suspension, manual drive trains, automatic transmission, and engine performance.

TEAU 2911 Manufacturer Automotive Service Training – Toyota **2 Credits / 60 Clock-Hours**

Toyota TECS Elite is supplemental training to STECH's automotive training curriculum and provides students the ability to become Toyota/Lexus Certified Maintenance Level Technicians.

Objectives:
• Demonstrate competency in all eight ASE areas of emphasis will be covered: engine repair, electrical systems, heating and air conditioning, brake systems, steering and suspension, manual drive trains, automatic transmission, and engine performance.

TEAU 2912 Manufacturer Automotive Service Training – Mopar CAP **2 Credits / 60 Clock-Hours**

The Mopar CAP course provides students with more than a general automotive education. Mopar CAP students gain the training and fundamental knowledge they need to work on some of the hottest vehicles in the industry from legendary Chrysler, Dodge, Jeep®, Ram, FIAT® and Alfa Romeo brands. Mopar CAP certification gives students a competitive edge and shows our dealers they have the fundamental qualifications to be a successful automotive Technician at an FCA dealership.

Objectives:
• Demonstrate competency in all eight ASE areas of emphasis will be covered: engine repair, electrical systems, heating and air conditioning, brake systems, steering and suspension, manual drive trains, automatic transmission, and engine performance.

TEAU 2913 Manufacturer Automotive Service Training – Audi **2 Credits / 60 Clock-Hours**

After completing the Audi AEP program training, student technicians will be Expert Level Audi-Certified Technicians.

Objectives:
• Demonstrate competency in all eight ASE areas of emphasis will be covered: engine repair, electrical systems, heating and air conditioning, brake systems, steering and suspension, manual drive trains, automatic transmission, and engine performance.

TEAU 2914 Manufacturer Automotive Service Training – Hyundai **2 Credits / 60 Clock-Hours**

Hyundai tech training provides student technicians the path to become Hyundai Maintenance Certified.

Objectives:
• Demonstrate competency in all eight ASE areas of emphasis will be covered: engine repair, electrical systems, heating and air conditioning, brake systems, steering and suspension, manual drive trains, automatic transmission, and engine performance.

TEAU 2915 Manufacturer Automotive Service Training – Mercedes-Benz **2 Credits / 60 Clock-Hours**

MB Campus provides next-level vehicle technology, service, and repair. This program provides exposure to MB technologies and products, provides a skill set for MB success, and improves earning potential as an MB intern.

Objectives:
• Demonstrate competency in all eight ASE areas of emphasis will be covered: engine repair, electrical systems, heating and air conditioning, brake systems, steering and suspension, manual drive trains, automatic transmission, and engine performance.

Uintah Basin

TEAU 1810 Engine Performance I **2 Credits / 60 Clock-Hours**

Overview all aspects of diagnosis and repair of automotive engine performance systems. Discover aspects of engine performance including but not limited to fuel injection systems, carburetor systems, ignition systems, computer controls, emissions systems, and exhaust systems. Focus on diagnosing engine conditions and the operation and repair of ignition systems. Learn oscilloscope operation and waveform analysis.

Objectives:
· Inspect diagnose, and service ignition systems
· Inspect diagnose, and service gasoline fuel systems
· Inspect diagnose, and service basic lube and cooling systems
· Inspect diagnose, and service basics of engine management systems
· Inspect diagnose, and service basics of computer-controlled systems
· Inspect diagnose, and service emissions systems
· Inspect diagnose, and service the basics of fuel, air, and exhaust systems

TEAU 2400 Suspension and Steering II **2 Credits / 60 Clock-Hours**

This course covers the suspension and steering systems which include shock absorbers, tie rods, ball joints, tires, McPherson struts, along with conventional steering boxes and rack and pinion steering systems.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform steering system diagnosis and repair.
• Perform suspension system diagnosis and repair.
• Explain wheel alignment theory and perform adjustment and repair.
• Perform wheel and tire diagnosis and repair.

TEAU 2500 Brakes II **2 Credits / 60 Clock-Hours**

This course covers the theory of brake operation and repair of mechanical and hydraulic portions of the brake system. Also covered is the diagnosis and repair of the electronic controls used in anti□lock brake systems.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform hydraulic system diagnosis and repair.
• Perform drum and disc brake diagnosis and repair.
• Diagnose and repair power assist units.
• Demonstrate wheel bearing service.
• Diagnose and repair anti□lock brake systems.

TEAU 2625 Electrical II **2 Credits / 60 Clock-Hours**

Train in all aspects of automotive electricity and electronics. Learn electrical theory, apply Ohm's law, troubleshooting, diagnosis, and basic functions of all automotive electrical/electronic systems and circuits.

Objectives:
· Inspect, diagnose, and service advanced electrical/electronic systems
· Inspect diagnose and service basic battery systems
· Inspect diagnose, and service basic starter and charging systems
· Inspect diagnose, and service basic lighting systems
· Inspect diagnose, and service basic electrical/electronic accessories

TEAU 2660 Electrical III **2 Credits / 60 Clock-Hours**

Train in advanced aspects of automotive electricity and electronics. Apply electrical theory, use Ohms law, troubleshooting, diagnosis, and functions of all automotive advanced electrical/electronic systems and circuits.

Objectives:
· Inspect diagnose, and service electrical systems using a Picoscope
· Inspect and identify safety practices when working around high voltage batteries and wiring
· Inspect diagnose, and service advanced starting and charging systems
· Inspect diagnose, and service CAN bus and LAN systems
· Inspect diagnose, and service ADAS systems

TEAU 2815 Engine Performance II **2 Credits / 60 Clock-Hours**

Train in advanced aspects of diagnosis and repair of automotive engine performance systems including ignition systems, gasoline fuel systems, lube and cooling systems, engine management systems, computer controlled systems, emission systems, and fuel, air, and exhaust systems.

Objectives:
· Inspect diagnose, and service advanced ignition systems
· Inspect diagnose, and service advanced gasoline fuel systems
· Inspect diagnose, and service advanced lube and cooling systems
· Inspect diagnose, and service advanced engine management systems
· Inspect diagnose, and service advanced computer-controlled systems
· Inspect diagnose, and service advanced emissions systems
· Inspect diagnose, and service advanced fuel, air, and exhaust systems

USU-Eastern

TEAU 1045 Maintenance and Light Repair **2 Credits / 60 Clock-Hours**

This course is an overview of automobile equipment and its operating systems. Emphasis will be placed on safety in the auto shop, common hand tools and equipment, lubrication and cooling systems, tire and wheel services, and basic brake repair. Students have the opportunity to complete minor repairs and preventative maintenance procedures. This course includes extensive hands-on experiences.

Objectives:
• Work safely in an automotive shop.
• Use general automotive tools.
• Service the lubrication system.
• Perform tire related maintenance and repair.

TEAU 2301 Manual Drive Trains and Axles II **2 Credits / 60 Clock-Hours**

This course offers students the knowledge and hands-on experience necessary to inspect, diagnose, and repair manual drivetrain and axle systems in both automobiles and four-wheel/all-wheel drive vehicles. As the second course in a two-part series, it prepares students for the ASE A3 certification exam, which will be administered upon completion.

Objectives:
• Identify drivetrain and axle components and identify drive train concerns and action.
• Check and adjust clutch master cylinder fluid level, check for leaks, and use proper fluids.
• Diagnose clutch noise, binding, slippage, pulsation and chatter to determine needed action; bleed clutch hydraulic system.
• Inspect flywheel and ring gear for wear and determine needed action.
• Disassemble, inspect, clean and reassemble internal transmission/transaxle components.
• Inspect and service/replace bearings, hubs and seals, and shafts, yokes boots, and universal/CV joints.
• Inspect and repair differential housings, pinion and ring gear, drive axles.
• Diagnose, test, adjust and/or replace electrical components of four-wheel or all-wheel drive systems.
• Disassemble, service and reassemble transfer case components.

TEAU 2115 Engine Repair II **2 Credits / 60 Clock-Hours**

Engine Repair II continues training from Engine Repair I including: diagnosis, repair, and replacement of automotive engines, cylinder heads and valve trains, blocks, and lubrication and cooling system repairs. Throughout your time in this course, you will also explore general engine diagnosis and all aspects of engine repair, including engine repair, cylinder head, valve train, and engine block assembles. You will also practice the safe and proper techniques for removal and reinstallation of engines. This course conforms to ASE/NATEF standards.

Objectives:
• Demonstrate proper removal, reinstallation and general diagnosis of an engine.
• Diagnose and repair of cylinder head and valve train.
• Diagnose and repair of engine block assemblies.
• List alternative fuel and advanced technology vehicles.

TEAU 1805 Engine Performance I **2 Credits / 60 Clock-Hours**

The Engine Performance I course provides theory and hands-on instruction in automotive engine performance while following the program standards set forth by Automotive Service Excellence Education Foundation at the master level.

Objectives:
• Maintain vehicle safety through safe engine performance maintenance and repairs.
• Identify and interpret engine performance concerns; determine needed action.
• Inspect and repair abnormal engine noises or vibration concerns; determine needed action.
• Inspect and repair automotive ignition systems; determine needed action.
• Inspect and repair automotive fuel systems; determine needed action.
• Inspect and repair automotive air induction systems as it relates to engine performance.
• Inspect and repair automotive exhaust systems as it relates to engine performance.

TEAU 2835 Engine Performance II **2 Credits / 60 Clock-Hours**

This course covers general engine diagnosis along with tuneup and drivability repair. The ignition system, fuel system, and emission systems will be covered in detail. Use of scan tools and lab scopes for diagnosis of engine control computers and related systems will also be covered.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Perform general engine evaluation.
• Diagnose computerized engine controls on OBDII systems.
• Perform ignition system diagnosis and repair.
• Perform fuel, air induction, and exhaust systems diagnosis and repair.
• Diagnose emission control devices and system repair.
• Perform engine tuneup along with necessary mechanical adjustments

TEAU 2515 Brakes II **2 Credits / 60 Clock-Hours**

This course covers the theory of brake operation and repair of mechanical and hydraulic portions of the brake system. Also covered are the diagnosis and repair of the electronic controls used in antilock brake systems.

Objectives:
· Demonstrate safe working habits and handling of hazardous materials.
· Perform hydraulic system diagnosis and repair.
· Perform drum and disc brake diagnosis and repair.
· Diagnose and repair power assist units.
· Demonstrate wheel bearing service.
· Diagnose and repair antilock brake systems.

TEAU 2415 Suspension and Steering II **2 Credits / 60 Clock-Hours**

This course covers the suspension and steering systems which include shock absorbers, tie rods, ball joints, tires, McPherson struts, along with conventional steering boxes and rack and pinion steering systems.

Objectives:
· Demonstrate safe working habits and handling of hazardous materials.
· Perform steering system diagnosis and repair.
· Perform suspension system diagnosis and repair.
· Explain wheel alignment theory and perform adjustment and repair.
· Perform wheel and tire diagnosis and repair.

TEAU 2610 Electrical II **2 Credits / 60 Clock-Hours**

This course covers the electrical system used in the modern automobile. The training covers electrical theory including ohm's law and hands on application of that theory. Students will receive detailed training on onboard electronic control computers and their associated systems, lighting, starting/charging systems, and general electrical systems and accessories. Students will learn the use of specialized test equipment such as digital multimeter and a lab scope.

Objectives:
• Demonstrate safe working habits and handling of hazardous materials.
• Diagnose and repair general electrical problems.
• Diagnose and repair onboard computer controls.
• Diagnose battery, starting, and charging systems.
• Utilize wiring diagrams.
• Diagnose and repair lighting systems.
• Demonstrate electrical accessory and warning systems repair.

TEAU 2660 Electrical III **2 Credits / 60 Clock-Hours**

Train in advanced aspects of automotive electricity and electronics. Apply electrical theory, use Ohms law, troubleshooting, diagnosis, and functions of all automotive advanced electrical/electronic systems and circuits.

Objectives:
· Inspect diagnose, and service electrical systems using a Picoscope
· Inspect and identify safety practices when working around high voltage batteries and wiring
· Inspect diagnose, and service advanced starting and charging systems
· Inspect diagnose, and service CAN bus and LAN systems
· Inspect diagnose, and service ADAS systems

TEAU 2675 Electrical IV **2 Credits / 60 Clock-Hours**

Automotive Electrical IV is a capstone course integrating Electrical I–III, emphasizing diagnosis, testing, and analysis of automotive electrical systems. Students master wiring diagrams, sensors, actuators, and diagnostic tools while preparing through labs for the ASE A6 Electrical/Electronic Systems certification exam.

Objectives:
· Analyze and diagnose complex automotive electrical and electronic systems using industry-standard diagnostic strategies
· Explain and evaluate the operation of common automotive sensors and actuators, including input/output relationships within control modules
· Integrate knowledge and skills from Automotive Electrical I–III to perform advanced system-level diagnostics
· Accurately interpret wiring diagrams, schematics, and network communication layouts (CAN, LIN, etc.)
· Utilize digital multimeters, oscilloscopes, scan tools, and other diagnostic equipment to test circuits and components
· Diagnose faults related to powertrain, body, and chassis electrical systems
· Apply proper repair procedures based on manufacturer specifications and industry best practices
· Demonstrate readiness for entry-level employment and certification testing
· Successfully complete the ASE A6 Electrical/Electronic Systems certification exam

TEAU 2050 Maintenance and Light Repair II **2 Credits / 60 Clock-Hours**

Automotive Maintenance and Light Repair II is a continuation of Automotive Maintenance and Light Repair I and carries you forward in basic theory and function of suspension and steering systems, braking systems and heating ventilation and air conditioning fundamentals. During this course, you will continue to explore maintenance and servicing of engines and drivetrain systems.

Objectives:
· Engine Systems Inspection, Service and Repair:
· Describe engine system fundamentals, including 4-stroke cycle, engine sizes and performance.
· Demonstrate basic engine testing, service and maintenance procedures of engine systems. o Retrieve and record diagnostic OBDII generic power train Diagnostic Trouble Codes (DTCS).
· Automatic and Manual Transmission/Transaxle Inspection, Service, and Repair
· Describe the Fundamentals of Automatic Transmission operation.
· Perform Maintenance, Diagnosis and Service Procedures.
· Describe Transmission/Transaxle Fundamentals, including clutch operation.
· Perform Inspection, Maintenance, Diagnosis and Service Procedures.
· Electrical:
· Explain basic electrical theory, types of circuits in the automobile.
· Demonstrate proper testing procedures using Digital Volt Ohmmeter (DVOM) as well as test lights.
· Perform battery tests and service procedures.
· Perform starter tests and service procedures. o Describe lighting, gauges, horns, and wiper systems service and repair.

TEAU 1870 Diesel Engine Performance I **2 Credits / 60 Clock-Hours**

Diesel engines are quickly becoming a large part of the automotive repair industry. This course is a preparatory class to begin diagnosis and repair of the fuel system, air intake, and combustion of diesel fuel in a diesel engine.

Objectives:
• Describe the properties of Diesel fuel
• Perform diesel oil services
• Perform diesel fuel filter service
• Perform diesel engine air filter service
• Describe normal and abnormal combustion of diesel fuel
• Identify Light duty diesel engines and describe them
• Identify the subsystems of a diesel engine
• Identify, describe operation, diagnose and service the fuel subsystem
• Identify and describe operation of hydraulic Injector nozzles
• Identify and describe operation of Electrohydraulic Injector nozzles
• Maintain a safe and clean working environment, clean shop as directed

TEAU 2870 Diesel Engine Performance II **2 Credits / 60 Clock-Hours**

Diesel engines dominate today's repair industry. Diesel Engine Performance is an advanced course for automotive students and working technicians, enhancing diagnostic skills while explaining diesel combustion in detail, from initial injection through complete burn, supporting career advancement and professional growth.

Objectives:
· Build on concepts from Diesel Engine Performance I
· Diagnose, test, and service diesel sensors, control modules, and electronic fuel injection systems
· Diagnose, test, and service diesel air intake, exhaust, and emissions systems
· Identify and troubleshoot diesel aftertreatment components
· Diagnose common diesel engine fault codes using proper test procedures