

# AUTOMOTIVE (AUT)

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## **AUT 100A: Intro to Automotive Tech I (2)**

Orientation to Automotive Technology is for all students entering the Automotive Technology Program. Students are asked to fill out an online response form upon entering/ registering for the program. This information will be used to create usernames and passwords necessary to access manufacturer training and certification websites

**Terms Typically Offered:** Fall

## **AUT 100B: Intro to Automotive Tech II (4)**

This course gives students a fundamental understanding of procedures and equipment usage for a maintenance level technician. Instructor-Enforced pre/co requisite: AUT 100A

**Terms Typically Offered:** Fall

## **AUT 101: Basic Auto Skills I (3)**

First of a three-part series; a basic automotive series of classes designed to ready students for a college level Automotive Program. This class focuses on using proper tools and equipment as well as the operating concepts of a few of the major systems used in an automobile

**Terms Typically Offered:** Fall

## **AUT 102: Basic Auto Skills II (3)**

Second of a three-part series; a basic automotive series of classes designed to ready students for a college level Automotive Program. This class continues its focus on the operating concepts of the majority of the major systems used in an automobile not covered in the first class of the series

## **AUT 103: Basic Auto Skills III (5)**

Third of a three-part series; a basic automotive series of classes designed to ready students for a college level Automotive Program. This class adds electronics and diagnostics to the previous two classes in the series. (This complies with Job Corps TARS). Soft skills necessary for employment are taught and reinforced such as use of a time clock, completing repair orders (including concern, cause, and correction), and completing parts order slips

## **AUT 111: Engine Repair and Maintenance (6)**

This course covers the principles and operation of gasoline engines and engine maintenance. This includes the diagnosis, service, and repair of engine blocks, cylinder heads, and valve trains. The diagnosis, service, and repair of the lubrication system, cooling system, and engine removal, and reinstallation will also be covered. It is designed to meet the ASE required tasks for A1 certifications

**Terms Typically Offered:** Winter

## **AUT 112A: Auto Friday Career Academy (2)**

Friday Career Academy Orientation to Automotive Technology is for all students entering the Automotive Technology Program. Students are asked to fill out an online response form upon entering/ registering for the program. This information will be used to create usernames and passwords necessary to access manufacturer training and certification websites

**Terms Typically Offered:** Fall

## **AUT 112B: Auto Friday Career Academy (3)**

Friday Career Academy This course covers the principles and operation of gasoline engines and engine maintenance. This includes the diagnosis, service, and repair of engine blocks, cylinder heads, and valve trains. The diagnosis, service, and repair of the lubrication system, cooling system, and engine removal, and reinstallation will also be covered. It is designed to meet the ASE required tasks for A1, G1 and T1 certifications

**Terms Typically Offered:** Winter

## **AUT 112C: Auto Friday Career Academy (3)**

Friday Career Academy This course covers the principles and operation of gasoline engines and engine maintenance. This includes the diagnosis, service, and repair of engine blocks, cylinder heads, and valve trains. The diagnosis, service, and repair of the lubrication system, cooling system, and engine removal, and reinstallation will also be covered. It is designed to meet the ASE required tasks for A1, G1 and T1 certifications.

**Registration-Enforced Corequisite:** AUT 100A or instructor approval.

**Terms Typically Offered:** Spring

## **AUT 113: Drive Trains (6)**

This course covers the principles and operation of drive train systems. This includes the diagnosis, service and repair of manual, and automatic transmission/ transaxle assemblies, and related components/ systems. It is designed to meet the ASE required tasks for A2 and A3 certifications

**Terms Typically Offered:** Winter

## **AUT 114: Suspension and Steering (6)**

This course covers the principles and operation of gasoline engines and engine maintenance. This includes the diagnosis, service, and repair of engine blocks, cylinder heads, and valve trains. The diagnosis, service, and repair of the lubrication system, cooling system, and engine removal, and reinstallation will also be covered. It is designed to meet the ASE required tasks for A1 certifications

**Terms Typically Offered:** Spring

## **AUT 115: Braking Systems (6)**

This course covers the principles and operation of the various braking systems and their components. This includes the diagnosis, service, and repair of disc brakes, drum brakes, and related braking control systems concerns. It is designed to meet the ASE required tasks for A5 certifications

**Terms Typically Offered:** Spring

## **AUT 116: Electrical I (6)**

This course covers the principles and operation of vehicle electrical and electronic systems. This included the diagnosis, service, and repair of batteries, starting, and charging systems. The diagnosis, service, and repair of body electrical, and electronic systems, and the proper usage of electrical and electronic test equipment will also be covered. It is designed to along with AUT216, meet the ASE required tasks for A6 certifications

**Terms Typically Offered:** Fall

## **AUT 127: Climate Control Adv Electrical (6)**

This course covers the principles and operation of climate control systems. This includes the diagnosis, service, and repair of the HVAC system, and proper refrigerant recovery, recycling and handling. The diagnosis, service, and repair of advanced electrical systems will also be covered. It is designed to meet the ASE required tasks for A7 and T7 certifications. Su \*\*Last term offered Summer 2024

**Registration-Enforced Prerequisite:** AUT 116 or instructor approval.

## **AUT 129: Light Vehicle Diesel Engines (6)**

This course covers the principles, and operation of light vehicle diesel engines. This includes the diagnosis, service, and repair of engine management, fuel, and diesel emission control systems. It is designed to meet the ASE required tasks for A9 and L2 certifications. Su \*\*Last term offered Summer 2024

**Registration-Enforced Prerequisite:** AUT 111.

**AUT 216: Electrical II (6)**

This course focuses on diagnostics and testing of electronic systems. Advanced scan-tool and lab-scope usage is covered. It is designed to along with AUT116, meet the ASE required tasks for A6 certifications.

**Instructor-Enforced Prerequisite:** AUT 116.

**Terms Typically Offered:** Fall

**AUT 217: Heating and Air Conditioning (6)**

This course covers the principles and operation of climate control systems. This includes the diagnosis, service, and repair of the HVAC system, and proper refrigerant recovery, recycling and handling. It is designed to meet the ASE required tasks for A7 certifications.

**Instructor-Enforced Prerequisite:** AUT 116.

**Terms Typically Offered:** Winter

**AUT 218: Engine Performance I (6)**

This course covers the diagnosis, service, and repair of mechanical engine concerns, and computer control systems. The diagnosis, service, and repair of ignition, fuel, exhaust, and emission control systems will also be covered. This course, along with AUT228 is designed to meet the ASE required tasks for A8 certification.

**Instructor-Enforced Prerequisite:** AUT 111 and AUT 216 or Instructor approval.

**Terms Typically Offered:** Fall

**AUT 219: Light Duty Diesel (6)**

This course covers the principles and operation of light vehicle diesel engines. This includes the diagnosis, service, and repair of engine management, fuel, and diesel emission control systems. It is designed to meet the ASE required tasks for A9 and L2 certifications.

**Instructor-Enforced Prerequisite:** AUT 228 or Instructor Approval.

**Terms Typically Offered:** Spring

**AUT 220: Alternative Fuel Vehicles (6)**

This course is designed to give students an insight into the use of alternative fuels, including hybrid, and electrification. Different designs as well as how they affect emissions will be discussed.

**Instructor-Enforced Prerequisite:** AUT 228 or Instructor Approval.

**Terms Typically Offered:** Spring

**AUT 228: Engine Performance II (6)**

This course covers computerized engine management systems and their effects on drivability, performance, fuel mileage, and emissions. Evaporative emissions are also covered. This course, along with AUT218 is designed to meet the ASE required tasks for A8 certification.

**Instructor-Enforced Prerequisite:** AUT 218.

**Terms Typically Offered:** Winter

**AUT 280: CWE-Automotive (1-13)**

Qualified students work at training sites that provide experience appropriate to their major. These experiences will provide the opportunity for students to gain knowledge of the various tasks performed in their career field. A student may take any number of CWE credits per term, not to exceed 13 credits per year.

**Registration-Enforced Prerequisite:** Instructor approval.

**Terms Typically Offered:** Fall, Winter, Spring, Summer