

AUT - AUTOMOTIVE TECH (AUT)

AUT 101 Engine Fundamentals 3 SHC

This course is a study of automotive engine fundamentals, principles of engine operations, including horsepower calculations, cubic inch displacement calculations, efficiency combustion theory, etc. Types of engines, cylinders, valve arrangements, lubrications, fuel, exhaust and cooling systems are also included.

Lecture Hours: 2

Lab/Clinical Hours: 3

AUT 102 Engine Repair 4 SHC

This course is a basic study of the diagnostic procedures used to locate and repair internal engine malfunction.

Lecture Hours: 2

Lab/Clinical Hours: 6

AUT 112 Braking Systems 4 SHC

This course covers hydro-boost power brakes and vacuum power brakes as well as master cylinders and caliper rebuilding.

Lecture Hours: 3

Lab/Clinical Hours: 3

AUT 116 Manual Transmission and Axle 4 SHC

This course is an advanced study of manual transmissions and transaxles, including proper overhaul procedures for axles and manual transmissions and transaxles.

Lecture Hours: 3

Lab/Clinical Hours: 3

AUT 122 Suspension and Alignment 4 SHC

This course is a study of suspension and steering systems, including non-adjustable and adjustable wheel alignment angles and application of balancing and alignment equipment.

Lecture Hours: 3

Lab/Clinical Hours: 3

AUT 132 Automotive Electricity 4 SHC

This course is a study of electricity as used in automotive applications. This course includes dc and ac principles and their various uses in the automobile. The relationship between Ohm's Law and actual automotive circuits is demonstrated.

Lecture Hours: 3

Lab/Clinical Hours: 3

AUT 141 Introduction to Heating and Air Conditioning 4 SHC

This course is a basic study of the principles of heat transfer and refrigeration in automotive technology.

Lecture Hours: 2

Lab/Clinical Hours: 6

AUT 145 Engine Performance 3 SHC

This course covers the diagnosis of various performance problems using the appropriate diagnostic equipment and diagnostic manuals. Logical thinking is also included in the course.

Prerequisites: AUT 101.

Lecture Hours: 2

Lab/Clinical Hours: 3

AUT 152 Automatic Transmission 4 SHC

This course is a basic study of power flow and hydraulics, including torque converter operation.

Lecture Hours: 2

Lab/Clinical Hours: 6

AUT 156 Automotive Diagnosis and Repair 4 SHC

This is a basic course for general diagnostic procedures and minor repairs.

Prerequisites: AUT 101, AUT 112 and AUT 152.

Lecture Hours: 2

Lab/Clinical Hours: 6

AUT 157 Shop Mngmt and Supervision 3 SHC

This course covers shop management and supervision skills, including shop morale, quality control and customer relations.

Lecture Hours: 2

Lab/Clinical Hours: 3

AUT 231 Automotive Electronics 4 SHC

This course includes the study of solid state devices, microprocessors, and complete diagnostics using the latest available equipment.

Lecture Hours: 3

Lab/Clinical Hours: 3

AUT 275 Alternate Technology Vehicles 3 SHC

This course is the study of vehicles powered with gasoline engines in combination with other non-gasoline power systems. Hybrid, Fuel Cell, compressed gases and diesel/bio-diesel and Homogeneous Charge Compression Ignition (HCCI) technology will be covered in this course.

Lecture Hours: 2

Lab/Clinical Hours: 3