

AUTOMOTIVE TECHNOLOGY (AUTO)

AUTO 1101 - Intro To Technology & Service (3 Credit Hours)

An introductory course in shop operations, customer relations, flat rate manuals, safety, organizational design, pay structure, equipment, tools, and basic operational theories. Topics include the proper use of hand tools, measuring instruments, equipment; service procedures for lubrication, batteries, the cooling system, wheels and tires.

Prerequisite(s): None
(2/1/3)

AUTO 1201 - Automatic Transmissions (4 Credit Hours)

A comprehensive course that teaches the procedures for removal, disassembly, reassembly, and reinstallation of automatic transmissions and transaxles. Topics include transmission rebuilding with emphasis on in-service automobile repair including the repair of torque converters and oil pump assemblies.

Prerequisite(s): None
(0/4/4)

AUTO 1301 - Manual Transmissions (3 Credit Hours)

A comprehensive course on standard transmissions, drive lines and differentials. Topics include automotive drive shafts, universal joints, axles, differentials, bearings and deals, and standard shift transmissions.

Prerequisite(s): None
(0/3/3)

AUTO 1401 - Suspension & Steering Systems (4 Credit Hours)

A comprehensive study of suspension systems with emphasis on wheel alignment and suspension rebuilding. Topics include principles of geometry necessary to understand the procedures and methods for diagnosis and alignment of steering systems and servicing automotive tire and wheel assemblies including rotating, balancing, and repair.

Prerequisite(s): None
(0/4/4)

AUTO 1501 - Brake Systems (4 Credit Hours)

A comprehensive course in types of braking systems and their service requirements. Topics include teaching the principles of physics as related to fluid pressures and hydraulics, machine turning of brake drums and rotors, system operation, diagnosis, adjustment, testing, replacement, and repair procedures.

Prerequisite(s): None
(0/4/4)

AUTO 1601 - Basic Electrical Fundamentals (5 Credit Hours)

An introductory course in the basic concepts in D.C. and A.C. automotive electricity. Topics include Ohm's Law, series and parallel circuits, Kirchhoff's Voltage and Current Laws, Thevenin's equivalent circuits, and A.C. power generation.

Prerequisite(s): None
(1/4/5)

AUTO 1602 - Advance Electrical & Hybrid (5 Credit Hours)

This is a continuation of AUTO 1601. Topics include semiconductor devices with emphasis on the junction diode, the bipolar transistor, and the field effect transistor; electro-mechanical devices, specifically the operation and fault diagnosis and repair of self-rectifying D.C. generators; cranking motors; mechanical and electrical testing equipment used to diagnose malfunctions of the ignition systems and to determine the general condition of the engine.

Co-requisite(s): AUTO 1601
(1/4/5)

AUTO 1701 - Auto Heating & Air Conditioning (5 Credit Hours)

A comprehensive course on the principles of operation and service techniques applied to automobile heating and air conditioning systems. Topics include components, testing, diagnosing, charting, and repair practices.

Prerequisite(s): None
(1/4/5)

AUTO 1801 - Engine Mech & Related Problems (2 Credit Hours)

A comprehensive course in the operational theory of internal combustion engines. Topics include engine rebuilding, mechanical diagnosis, and failure analysis.

Prerequisite(s): None
(1/1/2)

AUTO 1802 - Basic Engine Performance (3 Credit Hours)

A basic engine performance course that teaches the procedures and methods necessary to diagnose and repair computerized engine controls by retrieving and storing diagnostics codes. Topics include the various types of ignition systems in use today.

Prerequisite(s): None
(1/2/3)

AUTO 1803 - Advance Engine Performance (8 Credit Hours)

A comprehensive course in the procedures and methods necessary to diagnose and repair fuel supply and fuel delivery systems. Topics include intake and exhaust systems, emissions controls systems, mechanical timing devices, and cooling system components.

Co-requisite(s): AUTO 1802
(0/8/8)

AUTO 2991 - Special Projects I (1 Credit Hour)

A course designed for the student who has demonstrated specific special needs. Associate Provost of Technical Studies approval required.

Prerequisite(s): None
(0/1/1)

AUTO 2993 - Special Projects II (2 Credit Hours)

A course designed for the student who has demonstrated specific special needs. Associate Provost of Technical Studies approval required.

Prerequisite(s): None
(0/2/2)

AUTO 2995 - Special Projects III (3 Credit Hours)

A course designed for the student who has demonstrated specific special needs. Associate Provost of Technical Studies approval required.

Prerequisite(s): None
(0/3/3)

AUTO 2996 - Special Projects, IV (3 Credit Hours)

A course designed for the student who has demonstrated specific special needs. Associate Provost of Technical Studies approval required.

Prerequisite(s): None
(3/0/3)

AUTO 2997 - Special Projects V (1 Credit Hour)

A Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in Practicum do not receive compensation. Associate Provost of Technical Studies approval required.

Prerequisite(s): None

(1/0/1)

AUTO 2998 - Practicum (3 Credit Hours)

A practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in practicum do not receive compensation.

Prerequisite(s): None

(0/3/3)

AUTO 2999 - Cooperative Education (3 Credit Hours)

Cooperative Education provides supervised on-the-job work experience related to the student's educational objectives. Students participating in Cooperative Education receive compensation for their work. Associate Provost of Technical Studies approval required.

Prerequisite(s): None

(0/3/3)