

AUTOMOTIVE (AUTO)

AUTO-100 INTRO TO AUTO TECHNICIAN

3 credit hours, 3 contact hours (3 Lecture Hours Per Week)

This course provides knowledge about safety and an introduction to other areas of automotive repair. This course will focus primarily on safety issues in the auto shop and tool usage. Vehicle maintenance and inspection and minor repairs will be performed.

Fee: \$70.00

AUTO-141 ENGINE DIAGNOSIS & IGNITION SYSTEMS

3 credit hours, 5 contact hours (2 Lecture/3 Lab Hours Per Week)

This course provides students the skills to test engine condition and ignition systems. Students will use vacuum, compression, cylinder leakage, and electronic engine analyzers. Students will learn how to diagnose an on-board computer system and its components for proper operation. The operation, inspection, testing and repair of ignition system components will be practiced. *3 credit hours/6 billed contact hours*

Requisite(s): Must complete AUTO-100

Fee: \$70.00

AUTO-146 AUTO BRAKE SYSTEMS

3 credit hours, 6 contact hours (2 Lecture/4 Lab Hours Per Week)

This introductory course teaches theory, service and repair of automotive braking systems and their components. Emphasis is given to hydraulic theory, repair, and service of system components, including anti-lock and traction control systems. *3 credit hours/6 billed contact hours*

Requisite(s): Must complete AUTO-100

Fee: \$70.00

AUTO-221 AUTOMOTIVE STEERING & SUSPENS I

3 credit hours, 6 contact hours (2 Lecture/4 Lab Hours Per Week)

This course provides an in depth study of the various mechanical and electronic steering and suspension systems used on today's vehicles. Focus will be placed on the theory and operation as well as the diagnosis and repair of steering and suspension system components including wheel alignment. This course will also cover tire diagnosis and repair and includes dynamic wheel balancing. The course will emphasize professional methods of diagnosis and repair for related components. *3 credit hours/6 billed contact hours*

Requisite(s): Must complete AUTO-100

Fee: \$70.00

AUTO-225 AUTO ELECTRICAL SYSTEMS I

3 credit hours, 6 contact hours (2 Lecture/4 Lab Hours Per Week)

This first of two electrical classes introduces the fundamentals of electricity and automotive electronics. Digital multi-meters and circuit troubleshooting is covered. Emphasis is placed on understanding and utilizing electrical diagrams. Batteries, starting and charging systems are covered. *3 credit hours/6 billed contact hours*

Requisite(s): Must complete AUTO-100

Fee: \$80.00

AUTO-226 AUTOMOTIVE HEATING & AIR COND

3 credit hours, 6 contact hours (2 Lecture/4 Lab Hours Per Week)

This course is designed as an introduction to the basics of air conditioning. Description, theory, operation, servicing, repair and diagnosis are all covered. The design and operation of the cooling system and its repair and service will also be studied.

Fee: \$90.00

AUTO-245 AUTO VALVE TRAIN & HEAD REBUILDING

3 credit hours, 4 contact hours (4 Lecture/ Lab Hours Per Week)

This course examines the way the internal combustion works and how the parts interact. The testing of engine condition will be demonstrated. Engine removal installation proper disassembly, cleaning and inspection of parts will be emphasized. The machining of valves and seats will be demonstrated. This is the first of two classes intended to prepare a student for engine repair certification tests. Prerequisite: VTA 100 Introduction to Automotive Technology

Requisite(s): Must take AUTO-100

Fee: \$70.00

AUTO-246 AUTO CYLINDER BLOCK REBUILDING

3 credit hours, 6 contact hours (2 Lecture/4 Lab Hours Per Week)

This course examines engine block diagnosis, repair and reassembly. The measurement and service of cylinders, crankshafts, piston and connecting rods will be demonstrated. Engine lubrication systems, cooling systems and proper installation of the completed engine assembly will be emphasized. This is the second of two classes intended to prepare a student for engine repair certification tests.

Requisite(s): Must complete AUTO-100 Recommended to complete AUTO-245 before taking AUTO-246

Fee: \$90.00

AUTO-250 INTRO TO AUTOMOTIVE TRANSMISSIONS

3 credit hours, 6 contact hours (2 Lecture/4 Lab Hours Per Week)

A study of driveline, manual and automatic transmission theory of operation, diagnosis, testing, and repair procedures. Theory and diagnosis of computer-controlled transmissions will also be covered.

Requisite(s): Must complete AUTO-100

Fee: \$70.00