AUTOMOTIVE SERVICE TECHNOLOGY (AUM)

AUM 101. FUNDAMENTALS OF AUTOMOTIVE TECHNOLOGY. 3 hrs.
This course provides basic instruction in Fundamentals of Automotive Technology.

AUM 112. ELECTRICAL FUNDAMENTALS 3 hrs.
This course introduces the principles and laws of electricity. Emphasis is placed on wiring diagrams, test equipment, and identifying series, parallel, and series-parallel circuits. Upon completion students should be able to calculate, build, and measure circuits.

AUM 121. BRAKING SYSTEMS. 3 hrs.
This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of brakes.

AUM 122. STEERING & SUSPENSION. 3 hrs.
This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of steering and suspension.

AUM 124. AUTOMOTIVE ENGINES. 3 hrs.
This course provides instruction on the operation, design, and superficial repair of automotive engines. Emphasis is placed on understanding the four stroke cycle, intake and exhaust manifolds and related parts, engine mechanical timing components, engine cooling and lubrication system principles and repairs, and basic fuel and ignition operation.

AUM 130. DRIVE TRAIN AND AXELS. 3 hrs.
This course provides basic instruction in automotive drive trains and axels. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and drivability.

AUM 133. MOTOR VEHICLE AIR CONDITIONING. 3 hrs.
This course provides basic instruction in theory, operation, and repair of automotive heating and air conditioning systems. Emphasis is placed on the understanding and repair of vehicle air conditioning and heating systems, including but not limited to air management, electrical and vacuum controls, refrigerant recovery, and component replacement.

AUM 162. ELECTRICAL AND ELECTRONIC SYSTEMS. 3 hrs.
This is an intermediate course in automotive electrical and electronic systems. Emphasis is placed on trouble-shooting and repair of battery, starting, charging, and lighting systems, subsystems, and components. This is a CORE course.

AUM 181. SPECIAL TOPICS. 1 hr.
PREREQUISITE: Permission of instructor.
These courses are designed to allow the student to specialize in a particular area of study with minimum instruction in automotive mechanics application and with evaluation at the instructor’s discretion. Emphasis is placed on a topic/project that the student is interested in and may include any related area in automotive mechanics. Upon completion, the student should be able to work with minimum instruction and execute the necessary techniques to finish a live work project of their choice.

AUM 220. ADVANCED AUTOMOTIVE ENGINES. 3 hrs.
PREREQUISITE: AUM 124 or permission of instructor.
This course provides in depth instruction concerning internal engine diagnosis, overhaul and repair, including but not necessarily limited to the replacement of timing chains, belts, and gears, as well as the replacement or reconditioning of valve train components as well as replacement of pistons, connecting rods, piston rings, bearings, lubrication system components, gaskets, and oil seats.

AUM 224. MANUAL TRANSMISSION AND TRANSAXLE. 3 hrs.
This course covers basic instruction in manual transmissions and transaxles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and drivability.

AUM 230. AUTOMATIC TRANSMISSION AND TRANSAXLE. 3 hrs.
This course provides basic instruction in automatic transmissions and transaxles. Emphasis is placed on the comprehension of principles and power flow of automatic transmissions and repairing or replacing internal and external components.

AUM 239. ENGINE PERFORMANCE. 3 hrs.
This course provides basic instruction in engine performance with emphasis on fuel and ignition systems relating to engine operation.

AUM 244. ENGINE PERFORMANCE AND DIAGNOSTICS. 3 hrs.
PREREQUISITE: AUM 239 or permission of instructor.
This course provides advanced instruction in engine performance. Emphasis is placed on engine management and computer controls of ignition, fuel, and emissions systems relating to engine performance and drivability.

AUM 246. AUTOMOTIVE EMISSIONS. 3 hrs.
PREREQUISITE: AUM 239 or permission of instructor.
This is an introductory course in automotive emission systems. Emphasis is placed on troubleshooting and repair of systems, subsystems, and components.

AUM 291. CO-OP. 3 hrs.
PREREQUISITE: Permission of instructor.
These courses constitute a series wherein the student works on a part-time basis in a job directly related to automotive mechanics. In these courses, the employer evaluates the student’s productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.