Automotive Technology (AUT)

AUT 1000   Automotive Fundamentals  .............. 3 Credit Hours
Equivalent: AUT 1110
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Pre- or Corequisite: AUT 1100 and AUT 1300 (Recommended).
This foundational course will identify and discuss major automotive systems, components and tools, using the correct terminology. Development of the ability to safely and efficiently use standard automotive tools and equipment will be emphasized during performance of basic automotive servicing procedures. Students will participate in a discussion of various automotive employment opportunities and analyze the job entry requirements for each. BILLABLE CONTACT HOURS: 4

AUT 1100   Automotive Brake Systems Service  .. 4 Credit Hours
Equivalent: ATA 1100
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Pre- or Corequisite: AUT 1000 (Recommended).
This course will cover the skills required to properly service the hydraulic brake system, utilizing hands-on training and work experience on licensed vehicles, developing entry-level job skills. The student will rebuild or renew all components of current major automotive manufacturers’ brake systems with an emphasis on safe and proper work habits and procedures. BILLABLE CONTACT HOURS: 5

AUT 1200   Front Suspension & Steering Service ...... 4 Credit Hours
Equivalent: ATA 1200
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Pre- or Corequisite: AUT 1000 and AUT 1100 (Recommended).
This course will develop the skills required to properly service the front suspension and steering system of current model vehicles. A great portion of class time will be spent in the lab rebuilding or renewing all components of the suspension and steering systems. Wheel alignment measurement and correction will be performed by all students on all major automotive equipment, with an emphasis on safe and proper work habits and procedures. BILLABLE CONTACT HOURS: 5

AUT 1300   Automotive Electrical Systems Servicing ..... 4 Credit Hours
Equivalent: ATA 1300, TEA 1160
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: AUT 1000
This course will develop the skills required to service the battery, cranking system, charging system, and electrical accessories systems of all current major automobile manufacturers’ vehicles. Theory of the systems as well as hands-on training will provide job entry-level job skills for the student. Current manufacturers’ specifications as well as safe and proper work habits and procedures will be emphasized. BILLABLE CONTACT HOURS: 5

AUT 1350   Automotive Advanced Electrical and Electronics  ... 4 Credit Hours
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: AUT 1000 and AUT 1300
This course develops the skills required to diagnose and service electrical/electronic components. The student will be instructed through a variety of methodologies and instruction to promote discussions related to advanced theories and diagnosis. Advanced training aids and diagnostic tools will be used to enhance knowledge. Multiple vehicles and manufacturer systems will be utilized for advanced troubleshooting; as well as hands-on experience using licensed vehicles. The student will develop advanced-level job skills in diagnosing and repairing malfunctions in the vehicle systems, with an emphasis on safe and proper work practices and procedures. BILLABLE CONTACT HOURS: 5

AUT 1400   Engine Support Systems Servicing  ...... 4 Credit Hours
Equivalent: ATA 1400, TEA 1110
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: AUT 1000 and AUT 1300; or Consent of Instructor.
This course will develop the skills required to properly service the engine, fuel, lubrication, cooling, exhaust and valve systems. A great portion of the class time will be spent in the laboratory performing tests, as well as repairing and renewing major components of the above named systems. The student will make adjustments, and replace components in accordance with manufacturers’ specifications, with a major emphasis on developing safe and proper work habits and techniques. BILLABLE CONTACT HOURS: 5

AUT 1500   Automotive Tune-Up & Emissions Service ...... 4 Credit Hours
Equivalent: ATA 1500, TEA 1140
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: AUT 1000
Pre- or Corequisite: AUT 1300 and AUT 1400 (Recommended).
This course will develop the skills required to properly tune an engine and diagnose the amount of emissions the engine produces. The student will also calibrate, make adjustments, and renew or replace components of the ignition and emission systems in accordance with the manufacturers’ specifications. The student will also diagnose drive-ability concerns related to engine performance and emissions. Current ignition analysis equipment as well as infrared and other emissions measuring devices and equipment will be used in a safe and proper manner. BILLABLE CONTACT HOURS: 5
AUT 1600  Automotive Transmission Servicing  . 4 Credit Hours
Equivalent: ATA 1600
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: AUT 1000
Pre- or Corequisite: AUT 1300 (Recommended).
This course will develop the skills required to perform service operations on all current major automobile manufacturers' automatic transmissions. A major portion of the class time will be spent in the laboratory performing tests, making adjustments, renewing or replacing various components of the transmissions. Manufacturer's specifications and procedures as well as safe and proper work habits will be greatly emphasized. BILLABLE CONTACT HOURS: 5

AUT 1700  Manual Transmission and Axle Service  ...... 4 Credit Hours
Equivalent: ATA 1700
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: AUT 1000
This course will develop the skills required to service all current major automobile manufacturers' manual transmissions and rear axles. Servicing procedures will include diagnosis, removal and replacement, and rebuilding of the clutch, transmission, drive shaft and the rear axle. Manufacturers' specifications and procedures as well as safe and proper work habits will be emphasized. BILLABLE CONTACT HOURS: 5

AUT 1800  Automotive Air Conditioning & Heating Service ................................................................. 4 Credit Hours
Equivalent: ATA 1800
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: AUT 1000
Corequisite: AUT 1300 (Recommended).
This course will develop the skills required to service all major automobile manufacturers' current model heating and air conditioning systems. Theory of the systems as well as work experience on licensed vehicles will be included. The student will develop entry-level job skills in diagnosing and repairing malfunctions in the systems, with an emphasis on safe and proper work habits and procedures. BILLABLE CONTACT HOURS: 5

AUT 2000  Cooperative Internship  ..................... 3 Credit Hours
Equivalent: IND 1403, IND 1403
English/ESL Placement: Placement into ENG 1060 or higher (or placement into ESL 2510 or higher for students taking the ESL sequence of courses).
Prerequisite: Completion of 24 Automotive (AUT) credits.
Prerequisite: Consent of Instructor.
The student will be employed in the automotive servicing industry in a supervised situation under the guidance of a coordinator. The student will identify and describe, through reports and position papers, technical problems encountered on the job. Students will complete a minimum of 135 hours. BILLABLE CONTACT HOURS: 3