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
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
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
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
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
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English/ESL Placement: Placement into ENG 1060 or higher (or
placement into ESL 2510 or higher for students taking the ESL sequence
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
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
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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
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
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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
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