

Master Syllabus

AUT 1100 - Basic Automotive Systems

Division: Science, Mathematics and Engineering

Department: Automotive Tech

Credit Hour Total: 2.0

Lecture Hrs: 1.0 **Lab Hrs:** 3.0

Date Revised: October 2013

Course Description:

Language of automotive systems and functions. Students will perform a series of activities related to vehicle maintenance such as oil change, chassis lubrication, safety inspections, ignition tune-up, cooling system testing, brake inspections and evaluation of a used vehicle. Basic hand tools are required. One classroom, three lab hours per week.

General Education Outcomes:

- ▣ Critical Thinking/Problem Solving
- ▣ Written Communication
- ▣ Information Literacy

Course Outcomes:

Brake Systems

Identify braking system components for wear and serviceability.

Assessment Method: Behavioral observations

Performance Criteria: 0-5 rating rubric system with a 3 or higher needed to pass

Tools and Terminology

Properly identify the tools and terminology that are utilized in the service of automobiles.

Assessment Method: Locally developed exams

Performance Criteria: 70% of students must score 70% correct on written exam

Automotive Operational Systems

Identify and express an understanding of automotive systems that apply to the operation of an automotive engine, cooling, ignition, electrical and braking systems.

Assessment Method: Locally developed exams

Performance Criteria: 70% of students must score 70% correct on written exam

Automotive Service Procedures

Perform a series of vehicle maintenance activities such as oil changes, cooling system testing, ignition tune-up and safety check inspections.

Assessment Method: Performance appraisals

Performance Criteria: Using a 0-5 rubric appraisal form, students will need to obtain a 3 or higher score to pass

Automotive Safety Practices

Perform safe work habits when performing automotive testing or service procedures.

Assessment Method: Performance appraisals

Performance Criteria: Using a 0-5 appraisal rubric score, students will need to obtain a 3 or higher score to pass

Used Vehicle Evaluation

Perform an in-depth analysis of a used vehicle for the purpose of purchase or evaluation to its condition and value.

Assessment Method: Portfolios

Performance Criteria: 70% of students passing with a 70% correct score on activity

Outline:

Lab safety criteria
Common hand tools
Battery, starting and charging
General voltmeter usage
Ignition systems and tune-up
Spark plugs fundamentals
Cooling systems fundamentals and testing
Brake system overview and inspections
Used vehicle evaluation
Engine oils and fluids