

Lassen Community College Course Outline

AT-90A Automotive Survival Lab

0.5 Unit

I. Catalog Description

The course is designed to provide the student with hands on experience in the areas of vehicle maintenance, preventive maintenance, minor tune-up, and simple adjustments.

Recommended Preparation: AT 90 Automotive Survival

Does not transfer to UC/CSU

25.5 Hours Lab, 25.5 total student learning hours

Scheduled: Spring, summer, fall

II. Coding Information

Repeatability: 1 Time

Grading Option: Pass/No Pass Only

Credit Type: Credit - Degree Applicable

TOP Code: 094800

III. Course Objectives

A. Course Student Learning Outcome

Upon completion of this course the student will be able to:
Perform basic automotive maintenance procedures.

B. Course Objectives

Upon completion of this course the student will be able to:

1. Demonstrate a safe-working knowledge of basic tools.
2. Identify major automobile components
3. Demonstrate owner/operator preventative maintenance procedures according to manufacturer's specifications
4. Demonstrate common roadside repairs using those tools normally carried in a vehicle.

IV. Course Content

A. Under hood

1. Change oil filter
2. Fluids
3. Service, maintenance
4. Clean/replace air filter
5. Adjust or replace drive belts
6. Replace spark plugs
7. Replace spark plug wires

B. Tires, wheels

1. Rotate tires
2. Balance tires
3. Check and adjust tire pressure

C. Under car

1. Grease u-joints

- 2. Replace shocks
- D. Battery
 - 1. Replace battery
 - 2. Service battery
 - 3. Clean battery terminals and cable ends
 - 4. Load test a battery
 - 5. Test specific gravity
- E. Electrical
 - 1. Replace bulbs (headlight/taillight)
 - 2. Adjust headlamps
- F. Fuel system – Replace fuel filter
- G. Cooling System
 - 1. Coolant testing
 - 2. Flush and replace antifreeze
 - 3. Replace cooling system hoses
 - 4. Replace a thermostat/temperature sensitive sending unit
 - 5. Pressure test a radiator and cap
- H. Brake System
 - 1. Replace brake pads and/or shoes
 - 2. Adjust emergency brake

V. Assignments

A. Appropriate Readings

Industry pamphlets and bulletins

B. Writing Assignments

Parts lists and shop evaluations

C. Expected Outside Assignments

Visit various shops to make observations relevant to the assigned topic

D. Specific Assignments that Demonstrate Critical Thinking

Determination of part specifications and bid evaluations

VI. Methods of Evaluation

Mixed-format quiz and demonstrations

VII. Methods of Delivery

Check those delivery methods for which, this course has been separately approved by the Curriculum/Academic Standards Committee.

Traditional Classroom Delivery Correspondence Delivery

Hybrid Delivery

Online Delivery

Traditional Classroom Delivery:

The appropriate method of instruction will be determined by the instructor and may include:

- 1. Lecture with or without various audio/visual aids
- 2. Group problem solving, discussion, debate, and/or critique
- 3. Demonstration
- 4. Field assignments

VIII. Representative Texts and Supplies

Industry pamphlets, trade journals and handouts (reference materials) as determined by the instructor.

IX. Discipline/s Assignment

Automotive Technology

X. Course Status

Current Status: Active

Original Approval Date: 12/09/2008

Course Originators: Chad Lewis

Latest Curriculum/Academic Standards Committee Revision Date: 02/19/2013

Instructional Program Review Date with no Revision: 11/7/2023