Lassen Community College Course Outline

AT-91 Smog Check Training Level 2

1.0 Unit

I. Catalog Description

The Smog Check Training 28 Hour Course is intended to provide students the knowledge, skills, and abilities needed to perform Smog Check inspections. Students who successfully complete this training will have met the California State Bureau of Automotive Repair's training requirements to qualify to take the Smog Check Inspector state licensing examination.

Prerequisites: Prior to taking the Smog Check Training, students must either satisfy BAR specified criteria, as listed below, or successfully complete the Level 1 Engine and Emission Controls Fundamentals Training.

BAR specified requirements: Possess ASE A6, A8 and L1 certification; <u>or</u> possess an AA/AS degree or Certificate in automotive technology and have 1 year experience; <u>or</u> have 2 years' experience and have completed BAR specified training.

8.5 Hours Lecture, 25.5 Hours Lab, 17 hours out-of-class, 51 total student learning hours

Scheduled: Fall and spring

II. Coding Information

Repeatability: Take 1 Times

Grading Option: Graded or Pass/No Pass Credit Type: Credit - Degree Applicable

TOP Code: 094800

III. Course Objectives

A. Course Student Learning Outcomes

Upon successful completion of this training, students shall, at a minimum, be able to:

- 1. Describe and demonstrate personal, shop, equipment, and vehicle safety practices.
- 2. Describe the laws, regulations, and procedures associated with consumer authorization of inspections and the overall administration of the Smog Check Program.
- 3. Describe the standards of practice expected of Smog Check Inspectors.
- 4. Demonstrate ability to calibrate an emission inspection system.
- 5. Demonstrate their knowledge, skills and abilities in performing Smog Check emission tests on various vehicle designs.
- 6. Demonstrate their knowledge, skills and abilities in performing Smog Check visual inspections on various vehicle designs.
- 7. Describe and demonstrate they have the knowledge, skills and abilities to perform smog check functional tests on various vehicle designs.

IV. Course Content

A. Standards of Practice / Station Obligations

- 1. Program Administration
- 2. Laws and Regulations
- 3. Station Requirements

- 4. Inspector Requirements
- 5. Technician Requirements
- 6. Station Operation
- 7. Station Audits
- 8. Repair Assistance and Cost Waivers
- 9. Referee Services

B. Consumer Authorization and Consultation

- 1. Estimates
- 2. Invoices

C. Vehicle Identification

- 1. Vehicles
- Exempted Vehicles
 Directed Vehicles
- 4. Certification Type
- 5. Specially Constructed Vehicles
- 6. Military Personnel Vehicles
- 7. Fleet Vehicles
- 8. Emissions Inspection System Vehicle Entries

D. Calibration of Inspection Equipment and Devices

- 1. Equipment Maintenance
- 2. Emissions Inspection System
- 3. Low Pressure Fuel Evaporative Tester

E. Safety

- 1. Personal
- 2. Shop
- 3. Equipment
- 4. Vehicle

F. Visual Inspection Procedures - Gasoline and Diesel.

- 1. Pass/Fail Criteria (tampered, defective)
- 2. Vehicle Emission Control Information Label
- 3. BAR Referee Label
- 4. Aftermarket Parts Label
- 5. Crankcase Emission Controls
- 6. Evaporative Emission Controls7. Thermostatic Air Cleaner
- 8. Air Injection Systems
- 9. Ignition Spark Controls
- 10. Exhaust After Treatment Systems
- 11. Exhaust Gas Recirculation Systems
- 12. Liquid Fuel Leak Inspection
- 13. Other Engine and Emission Controls Systems
- 14. Aftermarket Parts
- 15. Gasoline Visible Smoke Test
- 16. Diesel Visible Smoke Test Emissions Inspection System Entries

G. Emission Test Procedures

- 1. Safety Precautions
- Test Application
 Vehicle Preconditioning
- 4. Acceleration Simulation Mode
- 5. Two-Speed Idle

H. Functional Inspection Procedures

- Test Application
 Malfunction Indicator Light
- 3. OBDII
- 4. Ignition Timing
- 5. Exhaust Gas Recirculation System
- 6. Fuel Cap Integrity
- 7. Low Pressure Fuel Evaporation Test (LPFET)

8. Emissions Inspection System Entries

I. Smog Check Inspection Results

- 1. Vehicle Inspection Report
- 2. Vehicle Passes Inspection
- 3. Vehicles Fails Inspection

V. Assignments

A. Appropriate Readings

- 1. Industry materials as furnished by the instructor
- 2. Trade magazines
- 3. Manufacturer's bulletins
- 4. Current professional manuals

B. Writing Assignments

Typical writing assignments will include:

- 1. Providing written answers to assigned questions
- 2. Performing mathematical calculations as assigned
- 3. Maintaining a notebook of class assignments/activities

C. Expected Outside Assignments

Appropriate outside assignments may include:

- 1. Researching appropriate readings
- 2. Preparing written assignments and completing homework as assigned.
- 3. Studying as needed for successful classroom performance

D. Specific Assignments that Demonstrate Critical Thinking

Students will perform analysis and evaluation of readings and/or classroom materials and utilize this analysis in classroom discussion, writing assignments, and in performing laboratory activities. Students must select and use appropriate methods and materials needed to complete laboratory assignments.

Assignments in hybrid delivery may include completion of similar assignments online, discussion groups, email responses, and completion of lab packs online or in class.

VI. Methods of Evaluation

Traditional classroom delivery:

Term paper (topic choice, thesis statement, outline, bibliography, rough draft, final draft), homework, classroom discussion, essay, journals, lab demonstrations and activities, multiple choice quizzes, and participation.

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. Computer-assisted/other self-paced instruction.
- 5. Field trips or field assignments.
- 6. Laboratory assignments utilizing planned activities or "live" work.

VIII. Representative Texts and Supplies

Smog Check Inspection Procedures Manual

Smog Check Reference Guide

Laws and Regulations Manual

Write It Write Booklet

Low Pressure Fuel Evaporative Training Video

Gasoline Visible Smoke Test Training-multimedia

Diesel Vehicle Inspection Training - multimedia

Most current publication/edition will be used for all manuals. Student should

have appropriate shop clothing, proper footwear, and safety glasses.

IX. Discipline/s Assignment

Automotive Technology

X. Course Status

Current Status: Active

Original Approval Date: 04/08/2014 Board Approval Date: 05/13/2014

Chancellors' Approval Date: 05/23/2014

Revised By: Chad Lewis

Curriculum/Academic Standards Committee Revision Date: 02/15/2022