



# COURSE INFORMATION AND REQUIRED MATERIALS

PO Box 944246, Sacramento, CA 94244-2460

## FIRE FIGHTING AND RESCUE

**Course:** Emergency Response to Alternative Fuel Vehicles (2009) FSTEP  
**Hours:** 16  
**Designed For:** All fire service personnel  
**Description:** This training program will provide emergency response personnel with information for each of the alternative fuel technologies currently available; ethanol, biodiesel, natural gas, propane, and hydrogen along with electric, hybrid electric, and fuel cell vehicles.  
**Prerequisites:** None  
**Certification:** None  
**Class Size:** 40  
**Student/Instructor:** Ratio: 40:1 Classroom lecture  
**Restrictions:** This course requires alternative fuel/energy vehicles and available refueling facilities.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ The Emergency Response Guide to Alternative Fuel Vehicles	2009	SFT Web-Site
REQUIRED INSTRUCTOR MATERIALS		
▪ The Emergency Response Presentation Guide to Alternative Fuel Vehicles	2009	SFT Web-Site
▪ The Emergency Response Guide to Alternative Vehicles (Powerpoint)		

### EMERGENCY RESPONSE GUIDE TO ALTERNATIVE FUEL VEHICLES COURSE OUTLINE

Course Objectives: to provide the student with...

- a) an overview of the social, economic and ecological issues of alternative fuel vehicles
- b) the hazards associated with each fuel/energy source
- c) techniques to identify alternative fuel/energy vehicles
- d) an ability to identify the safety features and components of the refueling facilities
- e) an application of Standard Operating Guidelines to new fuel/energy vehicle technologies.

Course Content .....	16:00
1. Introduction and Course Procedures .....	0:30
2. Introduction to Internal Combustion Vehicles .....	0:15
3. Ethanol Fuel .....	1:00
4. Biodiesel .....	0:45
5. Compressed Natural Gas (CNG) .....	1:00
6. Liquefied Natural Gas Propane (LNG) .....	1:00
7. Propane .....	0:30
8. Hydrogen .....	1:00
9. Introduction to Electric Vehicles .....	0:15
10. Electric Vehicles .....	1:00
11. Hybrid Electric Vehicles .....	0:30
12. Hybrid Electric Buses .....	0:30
13. Fuel Cell Vehicles .....	1:00
14. Introduction to Emergency Response .....	0:15
15. Alternative Fuel Vehicle Emergencies & Fires .....	1:00
16. Extrication Safety & Organization .....	2:00
17. Vehicle & Refueling Activities .....	4:00

**DRAFT**