



COURSE OUTLINE

Fire Safety in the Automotive Repair and Maintenance Industry

Nothing Acts Faster than Fire Prevention

Training Hazard Area: Fire Safety

Training Topic: Fire Safety in the Automotive Repair and Maintenance Industry

Target Industries: Automotive repair and maintenance industry

Goal: To train students to recognize workplace fire hazards and to prevent fires in their automotive shops

Learning Objectives: Students will learn: 1. How to develop a fire prevention plan, 2. How to evaluate the workplace for fire hazards, 3. Methods to reduce or eliminate those hazards, and 4. How to develop an emergency action plan. Because automotive repair and maintenance shops frequently use flammable and combustible materials, the training emphasizes the proper use and storage of those materials.

Languages: English and Spanish

Course Materials: The course materials are listed in Table 1. All materials are available in Spanish as well.

Course Deliver Methods: Informal tabletop flip chart, formal PowerPoint presentations, short videos and worksheets

Environment: Can be taught indoors or outdoors utilizing different course materials

Evaluation Materials: Pre and post assessments, class examinations and class evaluations

Class Length: 20 – 60 minutes or longer depending on materials and method used

Promotional Material: Thirteen 8 x 10 flyers and 4 postcards to promote the training classes

Workplace Posters: Nine 8 x 10 posters. Topics: Electrical safety, Proper use and storage of flammable liquids, tips for good housekeeping

Course Overview

Fire safety in the automobile repair and maintenance industry is challenging, because an auto repair shop contains many flammable substances. Cars themselves are full of flammable fluids such as gasoline, motor oil and various lubricants. In addition, degreasers, paint and other products used to service cars are flammable. Shops also have many ignition sources such as car engines and electrical equipment.

This course contains three presentations and a tabletop flip chart. The first presentation is an overview of a fire prevention plan, geared to managers. The second presentation is geared to shop technicians, and discusses how to identify and mitigate fire hazards. The third presentation discusses how to use a fire extinguisher and is designed to accompany hands-on training. The tabletop flip chart is a condensed version of the second presentation and can be used for small informal groups in any location.

Presentation 1 discusses the six critical elements of a fire prevention plan. In this presentation, shop managers will learn about Federal fire safety regulations for auto repair shops, record keeping requirements, the Hazard Communication Standard, and personal protective equipment.

Presentation 2 discusses the nine ways to mitigate fire hazards in an automobile repair shop in greater detail.

Presentation 3 is designed to accompany the hands-on training required for shops that have fire extinguishers. Employees will learn how to classify fires, select the proper fire extinguisher, and how to operate the fire extinguisher.

Fire Prevention Plan

This course provides tools to help a busy auto repair shop create a fire prevention plan and improve its fire safety. A fire prevention plan contains six critical elements.

Element 1: Develop a written fire safety plan.

The Occupational Health and Safety Administration (OSHA) does not require a written fire prevention plan for shops with fewer than 10 employees. However, a written plan will provide effective documentation for smaller shops. If a shop lacks computer access, a hand-written plan will suffice provided the plan is comprehensive and legible.

Element 2: Communicate the plan.

Everyone in the shop needs to be trained about the plan, including administrative staff and part-time workers. Training all shop employees will ensure that everyone knows what to do in the event of a fire.

Element 3: Install and maintain fire warning and fire suppression systems.

A fire warning system warns the shop of a fire, so that everyone has time to evacuate. A fire suppression system is designed to put out a fire and reduce property damage. Fire extinguishers can put out small fires before they engulf the shop. Presentation 3 discusses the different types of fire extinguishers and the correct way to use a fire extinguisher. Fire suppression systems and fire warning systems are not required for auto shops of under 10 employees. For more information about fire extinguishers, see <https://fireprevention.utexas.edu/firesafety/abcs-fire-extinguishers>.

Element 4: Prepare an emergency action plan

The emergency action plan maps out possible escape routes in the event of a fire, how to safely shut down equipment, and the location of fire extinguishers. The plan also designates a safe place nearby for everyone to gather after evacuation, so that all shop staff and visitors can be accounted for quickly.

Element 5: Evaluate the shop for fire hazards

Evaluate your shop for ignition sources such as engines and electrical equipment, and their proximity to flammable materials such as paper, gasoline, degreasers, used shop rags and paint products. Smoking and space heaters are ignition sources that should never be permitted in an auto repair shop.

Element 6: Mitigate shop fire hazards

The course discusses nine ways that an auto repair shop can mitigate its fire hazards.

1. Eliminate ignition sources
2. Store products containing VOC and other flammable products safely
3. Maintain a clean shop
4. Prevent spills
5. Clean up spills promptly
6. Handle wastes properly
7. Use water-based cleaners for degreasing and cleaning
8. Use a parts washer instead of flammable degreasers
9. Store used rags safely

TABLE 1: LIST OF TRAINING MATERIALS

File Name	Language	Description
Presentation 1_Fire Safety For Managers_English.pptx	English	PowerPoint presentation that discusses the six critical elements of a fire prevention plan
Presentation 2_Fire Safety For Workers_English.pptx	English	PowerPoint presentation that discusses the nine ways to mitigate fire hazards in an automobile repair shop
Presentation 3_Fire Extinguisher Training_English.pptx	English	PowerPoint presentation that is designed to accompany the hands-on training required for shops that have fire extinguishers
Fire_Safety_Flipchart_English.pptx	English	Tabletop flip chart best for small informal groups. Should be printed out, laminated and spiral bound.
PrePostAssessments_Presentation 1_English.docx	English	Pre- and Post- assessments for Presentation 1 to measure learning student learning.
PrePostAssessments_Presentation 2_English.docx	English	Pre- and Post- assessments for Presentation 2 to measure learning student learning.
PrePostAssessments_Presentation 3_English.docx	English	Pre- and Post- assessments for Presentation 3 to measure learning student learning.
ExamA_Presentation 1_English.docx ExamB_Presentation 1_English.docx	English	Final Exams for Presentation 1
ExamA_Presentation 2_English.docx ExamB_Presentation 2_English.docx	English	Final Exams for Presentation 2
ExamA_Presentation 3_English.docx ExamB_Presentation 3_English.docx	English	Final Exams for Presentation 3
Flyers_Presentation 1_English.pptx	English	Six 8 x 10 flyers promoting the training course associated with presentation 1
Flyers_Presentation 2_English.pptx	English	Six 8 x 10 flyers promoting the training course associated with presentation 2
Flyers_Presentation 3_English.pptx	English	One 8 x 10 flyers promoting the training course associated with presentation 3
Posters_English.pptx	English	Nine 8 x 10 workplace safety posters
Word Match_English.docx	English	Word match handout to accompany presentations 1 or 2 or the flip chart
Crossword Puzzle_English.docx	English	Crossword handout to accompany presentations 1 or 2 or the flip chart

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True or False_English.docx	English	True or False handout to accompany presentations 1 or 2 or the flip chart
Video_What Are VOCs_English.mp4	English	Video on what are volatile organic compounds (VOCs)
Video Transcript_What Are VOCs_English.docx	English	Transcript of the What Are VOCs video
Video_5 Tips to Prevent Fires_English.mp4	English	Video giving 5 tips to prevent fires in automotive repair shops
Video Transcript_5 Tips to Prevent Fires_English.docx	English	Transcript of the 5 Tips to Prevent Fires video
Certificates – English.pptx	English	Course completion certificate
Postcards_English.pptx	English	Four postcards promoting the training courses
Fire Safety Sign-In Sheet_English.docx	English	Sign in sheets for students attending training class
Training_evaluation_English.docx	English	Class evaluation form for the training
Presentation 1_Fire Safety For Managers_Spanish.pptx	Spanish	PowerPoint presentation that discusses the six critical elements of a fire prevention plan
Presentation 2_Fire Safety For Workers_Spanish.pptx	Spanish	PowerPoint presentation that discusses the nine ways to mitigate fire hazards in an automobile repair shop
Presentation 3_Fire Extinguisher Training_Spanish.pptx	Spanish	PowerPoint presentation that is designed to accompany the hands-on training required for shops that have fire extinguishers
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PrePostAssessments_Presentation 3_Spanish.docx	Spanish	Pre- and Post- assessments for Presentation 3 to measure learning student learning.
ExamA_Presentation 1_Spanish.docx ExamB_Presentation 1_Spanish.docx	Spanish	Final Exams for Presentation 1

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ExamA_Presentation 2_Spanish.docx ExamB_Presentation 2_Spanish.docx	Spanish	Final Exams for Presentation 2
ExamA_Presentation 3_Spanish.docx ExamB_Presentation 3_Spanish.docx	Spanish	Final Exams for Presentation 3
Flyers_Presentation 1_Spanish.pptx	Spanish	Six 8 x 10 flyers promoting the training course associated with presentation 1
Flyers_Presentation 2_Spanish.pptx	Spanish	Six 8 x 10 flyers promoting the training course associated with presentation 2
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