STATE FIRE TRAINING

COURSE INFORMATION AND REQUIRED MATERIALS MANUAL

May 2015

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COURSE INFORMATION AND REQUIRED MATERIALS
May 2015

CFSTES

Course: Chief Fire Officer 3D: Emergency Service Delivery Responsibilities (2014)
Hours: 24
Designed For: The certified Company Officer advancing to the Chief Fire Officer classification
Description: This course provides students with a basic knowledge of the emergency service requirements related to the roles and responsibilities of a Chief Fire Officer including developing a plan for the integration of fire services resources, developing an agency resource contingency plan, evaluating incident facilities, supervising multiple resources, developing and utilizing an incident action plan, obtaining incident information to facilitate transfer of command, developing and conducting a post-incident analysis, and maintaining incident records.
Prerequisites: Meet the educational requirements for Company Officer
Certification: Chief Fire Officer
Class Size: 25
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
▪ Chief Officer: Principles and Practice Instructor's Toolkit CD ISBN: 9780763798390	--	JB
▪ Chief Officer: Principles and Practice Instructors Test Bank CD ISBN: 9780763798406	--	JB
▪ Incident Response Pocket Guide (ISBN: NFES 001077)	2010	NWCG
▪ Firescope Field Operations Guide, ICS 420-1, Incident Command System	2012	FS
▪ Firescope ICS forms	CURRENT	FS
▪ NFPA 1051 Standards for Wildland Fire Fighter Professional Qualifications (ISBN: 9781455903047)	2012	NFPA
▪ NFPA 1021 Standards for Fire Officer Professional Qualifications (ISBN: 9781616653330)	2009	NFPA
▪ National Incident Management System (NIMS)	--	NIMS

VENDORS		
JB	Jones & Bartlett - 800-832-0034	http://www.jblearning.com
NWCG	National Wildfire Coordinating Group	http://www.nwcg.gov
FS	Firescope	http://www.firescope.org/
NFPA	National Fire Protection Association	http://www.nfpa.org/
NIMS	National Incident Management System	http://www.fema.gov

CHIEF FIRE OFFICER 3D COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Executive Chief Officer Certification Process

CHIEF FIRE OFFICER 3D COURSE CONTENT (cont'd)

Unit 2: Emergency Service Resources

- Topic 2-1: Developing a Plan for the Integration of Fire Services Resources
- Topic 2-2: Developing an Agency Resource Contingency Plan

Unit 3: Emergency Service Response

- Topic 3-1: Evaluating Incident Facilities
- Topic 3-2: Supervising Multiple Resources
- Topic 3-3: Developing and Utilizing an Incident Action Plan
- Topic 3-4: Obtaining Incident Information to Facilitate Transfer of Command
- Topic 3-5: Developing and Conducting a Post-Incident Analysis
- Topic 3-6: Maintaining Incident Records

CFSTES

Course: Command 1A: Structure Fire Command Operations for the Company Officer (2012)
Hours: 40
Designed For: First-in incident commander and company officers
Description: This course provides an introduction to the principles of command, an overview of the concepts of command safety and the risk management process, pre-incident planning considerations, command considerations at structure fire incidents, Company Officer initial actions at an incident including the development of incident priorities, strategy, and tactics, information on the roles and responsibilities of a Company Officer for post-incident actions. Each student will have the opportunity to gain experience in a controlled environment through structure fire incident simulations.
Prerequisites: Fire Fighter I training; I-200: Basic ICS; Prevention 1: Fire and Life Safety Inspections for the Company Officer **OR** Prevention 1A: Introduction into the California Fire Code and Prevention 1B: Inspection of Fire Protection Systems/Special Hazards.
Certification: Company Officer
Class Size: 25
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Command 1A: Structure Fire Command Operations for the Company Officer – California Edition	2011	Delmar
REQUIRED INSTRUCTOR MATERIALS		
▪ Command 1A: Structure Fire Command Operations for the Company Officer – California Edition	2011	Delmar
▪ Instructor Online Resources	2013	SFT

VENDORS		
Delmar	Delmar Thomson Learning 800-347-7707	http://www.cengagebrain.com/shop/index.html
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/course.CMD1A.php

COMMAND IA COURSE CONTENT

Unit 1: Introduction
- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Officer Certification Process

Unit 2: Introduction to Command
- Topic 2-1: Incident Management Systems Review
- Topic 2-2: Fireground Safety Concepts
- Topic 2-3: Concepts of Decision Making
- Topic 2-4: Ethics/Command Presence of the Fireground
- Topic 2-5: Principles of Command

Unit 3: Pre-Incident Considerations
- Topic 3-1: Building Construction and its Effect on Fire Development
- Topic 3-2: Fire Department Support in Built-in Fire Protection Systems
- Topic 3-3: Structure Fire Pre-Incident Considerations
- Topic 3-4: Local, State, and Federal Mutual Aid Resource Availability

COMMAND IA COURSE CONTENT (cont'd)

Unit 4: Company Operations

- Topic 4-1: Engine and Truck Company Operations
- Topic 4-2: Apparatus Placement Considerations
- Topic 4-3: Determining Fire Flow Requirements

Unit 5: Command Considerations

- Topic 5-1: Size-Up and Report on Conditions
- Topic 5-2: Determining and Implementing the Initial Incident Actions
- Topic 5-3: Conducting Fire Incident Scenarios
- Topic 5-4: Tactical Considerations Specific to One- and Two-family Dwellings
- Topic 5-5: Tactical Considerations Specific to Multi-family Dwellings
- Topic 5-6: Tactical Considerations Specific to Commercial Buildings
- Topic 5-7: Tactical Considerations Specific to Places of Assembly
- Topic 5-8: Post-incident Actions

Fire Command 1B: Incident Management for Company Officers (1998)

Hours: 40

Designed For: First-in incident commander and company officers

Description: This course provides the student with information on tactics, strategies, and scene management for multi-casualty incidents, hazardous materials incidents, and wildland fires. Each student also has the opportunity to increase his or her knowledge and skills by handling initial operations at these types of incidents through simulation and class activities.

Prerequisites: I-200, Fire Command 1A **OR** Command 1A

Certification: Fire Officer

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	1998	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Instructor Guide	1998	SFT
▪ PowerPoint Slides on CD-ROM (Optional)	1998	SFT
▪ Student Manual	1998	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE COMMAND 1B COURSE OUTLINE

Course Objectives: To provide the student with…

- Information in which to direct the initial operations of a multi-casualty incident.
- Information in which to direct the initial operations of a hazardous materials incident.
- Information in which to direct the initial operations of a wildland fire incident.
- The opportunity to demonstrate the knowledge and skills learned in handling initial operations at hazardous materials, wildland fire, and multi-casualty incidents through simulation and class activities.

Course Content: 40:00

Unit 1: Course Overview and ICS Review
- Orientation and Administration 1:00
- Course Overview 1:00
- Fire Command 1A Review 2:00
- Concepts of ICS Organization 3:00

Unit 2: Multi-Casualty Incidents
- Components of Triage and START 2:00
- ICS and EMS Multi-Casualty 1:30
- ICS-MCI Implementation Overview 1:30

Unit 3: Hazardous Materials Incidents
- Hazardous Materials Overview 0:30
- Properties of Hazardous Materials 1:00
- Toxicology 0:30
- Site Control/Work Zones 0:30
- Evacuation Considerations 1:00
- Decision-Making Process 0:30
- ICS and the Hazardous Materials Incident 1:30

Unit 4: Wildland Fire Incidents
- Factors Affecting Wildland Fires 2:00
- Defensive and Offensive Strategies in Wildland Fire Fighting 0:30
- Use of Direct and Indirect Attack Methods on Wildland Fires 1:00
- Structure Protection and Triage in Wildland Fires 2:00
- Wildland Fire Safety 1:00

Simulation Exercises 14:00

Course Review and Summative Exam 2:00

CFSTES

Course: Command 1C: WUI Command Operations for the Company Officer (2012)
Hours: 40
Designed For: First-in incident commander and company officers
Description: This course provides information to bring the structural Company Officer out of the city and into the wildland urban interface; in other words, from his or her comfort zone into an area that could be very well quite unfamiliar.
Prerequisites: Fire Fighter I training; Fire Command 1A: Command Principles for Company Officers **OR** Command 1A: Structure Fire Command Operations for the Company Officer; I-200: Basic ICS; S-290: Intermediate Wildland Fire Behavior (NWCG online is acceptable)
Standard: Complete all activities and formative tests
Complete all summative tests with a minimum score of 80%
Certification: Company Officer
Class Size: 32
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Command 1C Student Manual	2013	SFT
▪ Fireline Handbook (NFES 0065)	Current	NWCG
▪ ICS 420-1 Field Operations Guide (Pocket)	Current	FIRESCOPE
▪ Incident Response Pocket Guide (NFES 1077)	Current	NWCG
REQUIRED INSTRUCTOR MATERIALS		
▪ Command 1C Student Manual	2013	SFT
▪ Fireline Handbook (NFES 0065)	Current	NWCG
▪ ICS 420-1 Field Operations Guide (Pocket)	Current	FIRESCOPE
▪ Incident Response Pocket Guide (NFES 1077)	Current	NWCG
▪ Instructor Online Resources	2013	SFT

VENDORS		
FIRESCOPE	FF Resources of California Organized for Potential Emergencies	http://www.firescope.org/
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/
SFT	Instructor Online Resources	http://osfm.fire.ca.gov/training/Course.CMD1C.php

COMMAND 1C COURSE OUTLINE

Unit 1: Introduction
- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Officer Certification Process

Unit 2: The Wildland Urban Interface Environment
- Topic 2-1: Fire Suppression in the Wildland Urban Interface Environment
- Topic 2-2: Community Partnership Initiatives

Unit 3: Authority and Responsibility
- Topic 3-1: Jurisdictional Authority and Responsibility
- Topic 3-2: WUI Company Officer Responsibilities and Leadership Fundamentals

Unit 4: Fire Behavior Forecasting
- Topic 4-1: Fire Behavior in California's Fire Environment
- Topic 4-2: Collecting and Using Wildland Fire Weather, Fuels, and Topographic Information

COMMAND 1C COURSE OUTLINE (cont'd)

Unit 5: Managing Risk and Firefighter Safety

- Topic 5-1: Managing Risk at a WUI Fire

Unit 6: WUI Incident Operations

- Topic 6-1: Pre-Incident Considerations
- Topic 6-2: Readiness of Assigned Personnel and Equipment
- Topic 6-3: Radio Communications
- Topic 6-4: Resource Needs, Availability, and Capability
- Topic 6-5: Size-up and Report on Conditions
- Topic 6-6: WUI Fire Suppression Considerations
- Topic 6-7: WUI Plan of Action

Unit 7: Mobilization to an Expanding WUI Incident

- Topic 7-1: Mobilization and Response to an Expanding Incident
- Topic 7-2: Written Incident Action Plan Familiarization
- Topic 7-3: Administrative Duties of Mobilization

CFSTES

Course: Company Officer 2D: All-Risk Command Operations (2014)
Hours: 40 (see course plan for breakdown)
Designed For: Aspiring company officers
Description: This course provides information on conducting incident size-up, developing and implementing an initial plan of action involving single and multiunit operations for various types of emergency incidents to mitigate the situation following agency safety procedures, conducting preincident planning, and develop and conduct a post-incident analysis.
Prerequisites: Meet the educational requirements for Fire Fighter II
ICS-200.B: Incident Command System For Single Resources and Initial Action Incidents
Hazardous Material Incident Commander (as offered by the California Specialized Training Institute)
Certification: Fire Officer (Level I and II)
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 32
Student/ Instructor Ratio: 32:1 (lecture)
10:1 (lab)
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ The required textbook chosen by the instructor	--	--
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Company Officer (ISBN: 0879392819)	4TH	IFSTA
AND/OR Fire Officer: Principles and Practice (ISBN: 9781449600621)	3RD	JB
▪ Firescope Field Operations Guide ICS 420-1 (FOG Manual) Chap. 15, Chap 16, and Chap20	--	--
▪ NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs	--	NFPA
▪ Online Instructor Resources	2013	SFT

VENDORS		
IFSTA	International Fire Service Training Association	https://shop.ifsta.org/
JB	Jones and Bartlett	http://www.jblearning.com/
NFPA	National Fire Protection Association	
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/resources.php

COMPANY OFFICER 2D COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Officer Certification Process
- Topic 1-3: Definition of Duty

COMPANY OFFICER 2D COURSE CONTENT

Unit 2: Emergency Service Delivery

- Topic 2-1: Developing an Initial Plan of Action
- Topic 2-2: Implementing a Plan of Action
- Topic 2-3: Developing and Conducting a Postincident Analysis
- Topic 2-4: Identifying Elements of an Operational Plan to Mitigate an Incident
- Topic 2-5: Writing a Report Identifying Service Demand Causes

CFSTES

Course: Company Officer 2E: Wildland Incident Operations (2014)
Hours: 40 (see course plan for breakdown)
Designed For: Aspiring company officers
Description: This course provides information on evaluating and reporting incident conditions, analyzing incident needs, developing and implementing a plan of action to deploy incident resources completing all operations to suppress a wildland fire, establishing an incident command post, creating an incident action plan, and completing incident records and reports.
Prerequisites: Meet the educational requirements for Fire Fighter II
All Risk Command Operations for Company Officers
S-290 Intermediate Fire Behavior (classroom delivery only)
Certification: Fire Officer (Level I and II)
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 32
Student/ Instructor Ratio: 32:1 (lecture)
10:1 (lab)
Instructor Level Restrictions: Current State Fire Training registered instructor for Command 1C
None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Command 1C Student Manual	2013	SFT
▪ Fireline Handbook (NFES 0065)	CURRENT	NWCG
▪ ICS 420-1 Field Operations Guide	CURRENT	FS
▪ Incident Response Pocket Guide (NFES 1077)	CURRENT	NWCG
REQUIRED INSTRUCTOR MATERIALS		
▪ Command 1C Student Manual	2013	SFT
▪ Fireline Handbook (NFES 0065)	CURRENT	NWCG
▪ ICS 420-1 Field Operations Guide	CURRENT	FS
▪ Incident Response Pocket Guide (NFES 1077)	CURRENT	NWCG
▪ CAL FIRE Wildland Urban Interface Operating Principles	CURRENT	CAL FIRE
▪ S 200 Instructor Guide: Initial Attack Incident Commander (NFES 2903)	CURRENT	NWCG
▪ S 200 Instructor Guide: Initial Attack Incident Commander (NFES 2903) (CD-ROM)	CURRENT	NWCG

VENDORS		
NWCG	National Wildfire Coordinating Group	http://www.nwcg.gov/
FS	Firescope	http://www.firescope.org/
CAL FIRE	CAL FIRE	http://calfire.ca.gov/
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/resources.php

COMPANY OFFICER 2E COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Officer Certification Process

Unit 2: Wildland Fire Officer

- Topic 2-2: Developing Reports on Conditions

COMPANY OFFICER 2E COURSE CONTENT

- Topic 2-3: Formulating an Incident Action Plan
- Topic 2-4: Evaluating and Reporting Ongoing Incident Conditions
- Topic 2-5: Establishing an Incident Command Post
- Topic 2-6: Providing for Emergency Medical Treatment
- Topic 2-7: Deploying Resources to Suppress a Wildland Fire
- Topic 2-8: Updating Supervisors, Crew Members, and Adjoining Personnel

Terminal Learning Objective

- Topic 2-9: Analyzing Incident Needs
- Topic 2-10: Providing for Assigned Resources' Needs
- Topic 2-11: Providing Information to the Replacement Incident Commander
- Topic 2-12: Deploying Resources to Mop Up a Wildland Fire
- Topic 2-13: Completing Wildland Fire Suppression Operations
- Topic 2-14: Evaluating Assigned Personnel
- Topic 2-15: Verifying Personnel Qualifications
- Topic 2-16: Evaluating Job Performance
- Topic 2-17: Maintaining Wildland Incident Records
- Topic 2-18: Completing Personnel Time and Equipment Use Records
- Topic 2-19: Preparing Final Incident Reports
- Topic 2-20: Responding to Requests for Incident Information

Fire Command 2A: Command Tactics at Major Fires (1989)

Hours: 40

Designed For: Chief officers, company officers, and training officers

Description: This course prepares the officer to use management techniques and the Incident Command System when commanding multiple alarms or large suppression forces.

Prerequisites: I-300, Fire Command 1A OR Command 1A

Certification: Chief Officer

Class Size: 40

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Supplement	1985	SFT
▪ ICS 420-1 Field Operations Guide	2004	FIRESCOPE
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ ICS 420-1 Field Operations Guide	2004	FIRESCOPE
▪ Instructor Guide	1985	SFT
▪ Student Supplement	1985	SFT
▪ Fire Fighter Safety and Survival Video	1996	NTIS
▪ Overview of a Major Emergency Video, Los Angeles Library Fire (optional)		
▪ Detroit Fatalities Flashover Video (optional)		
▪ End of the Line Video, Phoenix Fire Incident (optional)		

VENDORS		
FIRESCOPE	Firefighting Resources of California Organized for Potential Emergencies	www.firescope.org
NTIS	National Technical Information Service (800-553-6847)	www.ntis.gov
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE COMMAND 2A COURSE OUTLINE

Course Objectives: To provide the student with…

- A review of the essential topics and activities from Fire Command 1A, including ICS, fire behavior within structures, pre-fire plan, and the role of the first-in officer.
- Information to assume or transfer command at major structure fires.
- A summary of considerations specific to major structure fire incidents.
- A summary of major fire incident operations and management procedures.
- Information and practices that enhance fire fighter safety and survival at major structure fires.
- The opportunity to apply expanded incident command principles under simulated conditions.

Course Content: 40:00

- Course Introduction and Overview 1:00
- Fire Command 1A Review 4:00
- Assuming and Transferring Command 7:00
- Major Fire Considerations 8:00
- Safety 6:00
- Simulation Exercises 12:00
- Summative Review and Summative Exam 2:00

Fire Command 2B: Management of Major Hazardous Materials Incidents (2009)

Hours: 40

Designed For: Chief officers, company officers, and training officers

Description: This course provides Incident Commanders with the skills and competency necessary to mitigate an incident, initiate remedial action, and ensure the restoration of normal services with a comprehensive resource management approach. The course is also intended to bring the student to the standard of competency established for On-Scene Commander by OSHA's Final Rule 29 CFR 1910.120 and NFPA 472. Students will participate in simulated incident scenarios and justify their actions in a mock civil court setting.

Prerequisites: I-300, Fire Command 1B, Fire Command 2A

Certification: Chief Officer

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Hazardous Materials On Scene Commander	2009	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Hazardous Materials On Scene Commander	2009	SFT
▪ Instructor Guide	2009	SFT

VENDORS		
SFT	Online Instructor Resources (courtesy of ETS)	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE COMMAND 2B COURSE OUTLINE

Course Objectives: To provide the student with…

- An understanding of what haz mats are; the problems they pose; the risks and outcomes of events; their clues, warning signs, placards, labels, shipping papers, and data sheets; the need for a positive safety approach including a mental safe approach tactic upon recognition of the haz mat event.
- The basic principles of first responder and operational actions; recognizing the need for use of ICS safety and isolation, and making the required notifications and contacts in mitigating a haz mat incident; and identifying the role of the Incident Commander/Scene Manager.
- Information to enhance their ability to communicate and coordinate with any agency having authorized activities dealing with a haz mat incident, and recognizing those agencies' roles and capabilities.
- Information to enhance their ability to conduct local pre-event haz mat plan and techniques to implement the management system used in that plan; and to identify methods of interaction with the state and federal regional response teams.

Course Content: 40:00

- Course Introduction and Overview 1:00
- Introduction to Hazardous Materials and the IC/Scene Manager 1:00
- Haz Mat Recognition and Safety 1:00
- Safety, Isolation, and Notification 1:00
- Agency Coordination at the IC/SM Level 1:00
- Pre-event and Event Specific Planning 1:00
- Managing the Media at a Haz Mat Incident 1:00
- Command and Scene Management 2:00
- IDHA and Action Plans 2:00
- Protective Equipment 1:00
- Containment and Control Methods 1:00
- Protective Actions Options 1:00
- Decontamination and Clean-Up Considerations 1:00
- Disposal and Funding Issues 1:00
- Documentation and Reporting 1:00
- Toxicology 1:00
- Safety and Isolation via Perimeters and Zones 1:00
- Investigations 1:00

FIRE COMMAND 2B COURSE OUTLINE

Fire Command 2C: High-rise Fire Fighting Tactics (1995)

Hours: 40

Designed For: Chief officers and experienced company officers

Description: This course is approached from a system basis and is applied to both small and large high-rise buildings. Topics include prefire planning, building inventory, problem identification, ventilation methods, water supply, elevators, life safety, strategy and tactics, application of the ICS, and specific responsibilities. Case studies and simulation are used.

Prerequisites: I-300, Fire Command 2A

Certification: Chief Officer

Class Size: 40

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ ICS-HR-102-1 High-rise Structure Fire Operational System Description	1999	FIRESCOPE
▪ ICS-HR-222-1 Base Manager – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-2 Ground Support Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-3 Lobby Control Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-4 Systems Control Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-5 Staging Area Manager – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-6 Medical Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-7 Safety Officer – High-rise Incident	1999	FIRESCOPE
▪ Student Manual	1995	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ ICS-HR-102-1 High-rise Structure Fire Operational System Description	1999	FIRESCOPE
▪ ICS-HR-222-1 Base Manager – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-2 Ground Support Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-3 Lobby Control Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-4 Systems Control Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-5 Staging Area Manager – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-6 Medical Unit Leader – High-rise Incident	1999	FIRESCOPE
▪ ICS-HR-222-7 Safety Officer – High-rise Incident	1999	FIRESCOPE
▪ Student Manual	1995	SFT
▪ Incendio/Highrise Video		FETN
▪ Out of Chaos Video		

VENDORS		
FETN	Fire and Emergency Training Network (800-845-2443)	www.fetn.com
FIRESCOPE	Firefighting Resources of California Organized for Potential Emergencies	www.firescope.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE COMMAND 2C COURSE OUTLINE

Course Content:.....40:00

Do You Have High Rise In Your Community/Jurisdiction?
Construction Features Specific To High-rise Buildings
Water Systems Unique To High-rise Buildings
Occupant Life Safety
Prefire Planning and Training For High-rise Fire Fighting
Building Inventory and Prefire Survey Systems
Communications Systems
Specific Areas of Assignment As They Relate To High-rise ICS
Strategy, Tactics, and Priority Placement of Resources
Ventilation As It Relates To High-rise buildings
High-rise Elevator Systems
Fire Fighter Safety
Simulation Exercises With Post Fire Analysis and Case Studies

Fire Command 2D: Planning for Large Scale Disasters (1996)

Hours: 40

Designed For: Chief officers, company officers, and planners

Description: Key topics include: Principles of disaster planning and management, fire service emergency plans, emergency operations centers, case studies of various natural and man made disasters, roles of local, state and federal OES and emergency management agencies, discussion of multi-hazard planning techniques, ICS and SEMS concepts, and principles of exercising emergency management staffs.

Prerequisites: I-300, Fire Command 2A

Certification: Chief Officer

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	1996	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Instructor Guide	1996	SFT
▪ Student Manual	1996	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE COMMAND 2D COURSE OUTLINE

Course Objectives: To provide the student with…

- A brief history of emergency management programs at the local, state, and federal level, their current function, and available funding sources.
- The management tools, techniques, and resources currently available to develop an on-going emergency management program that would involve a range of local government departments, community agencies, and private entities.
- The basic principles and components of emergency management plan development, available guidance, and related terminology to include the usage of tine Incident Command System (ICS) and Standardized Emergency Management System (SEMS) concept.
- The basic principles, technical aspects, equipment components, and common features of facilities/areas that may be used as an Emergency Operations Center (EOC), and a description of mutual. Aid agreement and their application in disaster situations.
- Basic techniques for day-to-day management and how to make the emergency management program a valuable asset to their jurisdiction; to include interface with community groups, private businesses, support groups, and other organizations through training and an exercise development program.
- The current legislative and liability issues, as well as community pressures that are currently influencing emergency management programs to include current information received from recent disaster situations and their impact upon emergency management programs.
- An opportunity to demonstrate their acquired knowledge through programmed exercises and simulations.

Course Content: 40:00

- Orientation and Administrative Details 1:00
- Introductions and Purpose of the Course 1:00
- Description of Emergency Situations 1:30
- Project Assignment Description 0:30
- Incident Command System 0:30
- Functions of an Emergency Operations Center 2:00
- Design of an Emergency Operating Center 1:30
- History and Purpose of Federal Emergency Management Program 1:00
- Structure of Emergency Management Organizations 1:00
- Jurisdictional Responsibility for Emergency Management 1:30
- Fire Department Role in Emergency Management 1:00
- Role of Emergency Management Coordinator 1:00
- The Planning Process 1:30

FIRE COMMAND 2D COURSE OUTLINE

A Useable Plan	1:00
Disaster Service Worker	0:30
Comprehensive Emergency Management - Mitigation	1:30
Comprehensive Emergency Management - Preparedness	1:00
Comprehensive Emergency Management - Response	1:00
Comprehensive Emergency Management - Recovery	2:00
Mutual Aid	1:30
Procedures for Declaring a Local Disaster	1:00
Resources and Other Types of Assistance	2:00
Types of Exercises	1:30
Exercise Development Program	1:00
Tabletop Exercise Development	1:30
Functional and Full-Scale Exercises	1:00
Project Presentations	4:00
Review of Recent Emergency Situations	2:00
Course Review and Summative Exam	2:30

Fire Command 2E: Wildland Fire Fighting Tactics (1996)

Hours: 40

Designed For: Fire officers who have command responsibilities at wildland fires

Description: This course contains such topics as California's wildland fire problem, wildland fire safety, weather effects, wildland fuels, wildland fire behavior, initial attack methods, using support equipment, using topographic maps, strategy and tactics, and air attack operations. Involves class participation and simulation.

Prerequisites: I-300, Fire Command 1C, Fire Command 2A

Certification: Chief Officer

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Supplement	1994	SF
▪ I-100 Introduction to the Incident Command System	2006	NWCG
▪ ICS 420-1 Field Operations Guide	2004	FIRESCOPE
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ I-100 Introduction to the Incident Command System	2006	NWCG
▪ ICS 420-1 Field Operations Guide	2004	FIRESCOPE
▪ Instructor Guide	1994	SFT
▪ Introduction to Wildland Fire Behavior S-190 Student Workbook, (NFES 2901), with Unit/Final Tests (Appendix B)	2006	NWCG
▪ Pre-assignment	1994	SFT
▪ Student Supplement	1994	SF
▪ Wildland Calculator		NWCG

VENDORS		
FIRESCOPE	Firefighting Resources of California Organized for Potential	www.firescope.org
NWCG	National Wildlife Coordinating Group (208-387-5119)	www.nwcg.gov
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE COMMAND 2E COURSE OUTLINE

Course Objectives: To provide the student with…

- Information about the command responsibilities pertinent to emergency operations involving wildland fires.
- Information on the principles and methods for planned suppression of wildland fires.
- Information on the tactics and strategies common to wildland fires.
- Information on the resources specifically designed for wildland fire control.
- Information on the specific applications of the Incident Command System used in wildland fires and emergencies.
- The tools and techniques relative to reading maps and assessing topography that can be utilized in their own agency to improve pre-emergency planning and resource deployment.
- The opportunity to gain experience in a controlled environment through simulations.
- Information to manage an incident in a wildland fire.

Course Content: 40:00

- Historical Development of the Wildland Fire Problem 2:00
- Command Responsibilities 2:00
- Pre-emergency Planning 2:00
- Tactics and Strategy for Wildland Operations 4:00
- Specialized Wildland Fire Fighting Resource Capability 8:00
- Wildland Fire Behavior 4:00
- Map Reading and Usage 4:00
- Wildland Incident Command Systems 4:00
- Fire Fighter Safety and Survival 1:00
- Simulations 7:00
- Course Review and Summative Exam 2:00

Basic Emergency Vehicle Operations (1996)

Hours: 16

Designed For: All fire service personnel

Description: This course provides information and skills training. Topics include applicable laws, defensive driving techniques, basic inspection, and maintenance. Each student also has the opportunity to increase his or her driving skills during simulated driving conditions.

Prerequisites: None

Certification: None

Class Size: 25

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
None		
REQUIRED INSTRUCTOR MATERIALS		
None		

BASIC EMERGENCY VEHICLE OPERATIONS COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on driver responsibilities, vehicle laws, and defensive driving techniques.
- Information and techniques on basic inspections and maintenance of emergency vehicles
- Information and techniques for operating an emergency vehicle prior to the run, during the run, while at the emergency and when returning to the unit's quarters.
- An opportunity to increase his or her driving skills using simulated driving conditions.

Course Content: 16:00

- Introduction to Emergency Vehicle Operation 0:30
- State and Local Laws Relating to Emergency Vehicle Operations 0:20
- Department Driving Rules and Regulations 0:30
- Principles of Driving Techniques 1:00
- Principles of Safe Driving of Emergency Vehicles During "Code 3" Response 1:00
- Driving Safety Considerations for Off Road Operations 0:30
- Driver Safety While Working on Freeway Emergencies 0:30
- Placement of Emergency Vehicles at an Emergency Scene 0:10
- Mobile Pumping Safety Considerations 0:20
- How to Perform Routine Emergency Inspection 0:10
- How to Read and Interpret Vehicle Gauges 0:30
- How to Perform Routine Emergency Vehicle Maintenance 0:45
- How to Complete Routine Maintenance Records and Reports 0:15
- Development of an Equipment Inventory Checks 0:30
- How to Make Daily Equipment Inventory Checks 0:30
- Development of a Route Map Book 0:30
- How to Drive Apparatus 1:00
- How to Maneuver Apparatus Through Serpentine Exercise 1:00
- How to Maneuver Apparatus Through Offset Alley Exercise 1:00
- How to Maneuver Apparatus Through Straight Line Exercise 1:00
- How to Maneuver Apparatus Through Turn Around Exercise 1:00
- How to Maneuver Apparatus Through Diminishing Clearance Exercise 1:00
- How to Maneuver Apparatus While Mobile Pumping 1:00
- How to Maneuver Apparatus on Up and Down Hill Exercise. 1:00

Basic Pump Operations (1993)

Hours: 16

Designed For: All fire service personnel

Description: This course provides the student with the information and skills training for operating fire service pumps. Topics include types of pumps, engine and pump gauges, maintenance, unsafe pumping conditions, pressure relief devices, cooling systems, water supplies, drafting, and field hydraulics. Each student also has the opportunity to increase his or her pumping skills during simulated pumping conditions.

Prerequisites: None

Certification: None

Class Size: 25

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
None		
REQUIRED INSTRUCTOR MATERIALS		
Instructor Guide	1993	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

BASIC PUMP OPERATIONS COURSE OUTLINE

Course Objectives: To provide the student with…

- Information and theory on pump operation.
- Methods of performing basic field hydraulics
- Methods and techniques for routine maintenance on pumping apparatus.
- Methods and procedures for pump operations from the tank, a hydrant and at draft.

Course Content: 16:00

- Introduction to Pump Operations 0:30
- Types of Pumps 0:30
- Types of Priming Devices 0:15
- Single and Multi-Stage Centrifugal Pumps 0:30
- Engine and Pump Gages 0:15
- Maintenance Records and Reports 0:15
- Rated Performance of Fire Service Pumps 0:15
- Unsafe Pumping Conditions 0:30
- Pressure Relief Valves 0:15
- Auxiliary Cooling Systems 0:15
- Check Valves 0:10
- Water Supplies for Pump Operations 0:20
- Tank Supply Operations 0:15
- Water Tender Relay Operations 0:15
- Fire Hydrant Operations 0:30
- Tandem Pumping Operations 0:30
- Forward Hose Lay Supply Operations 0:30
- Drafting Theory 0:30
- Static Water Supply Operations 0:30
- Ejector Pump Operations 0:30
- Relay Pumping Operations 0:30
- Field Hydraulics 2:00
- How to Provide Power to the Pump 1:00
- How to Use Tank Water 1:00
- How to Use a Hydrant 1:00
- How to Relay Pump 1:00
- How to Draft Water 1:00
- How to Use an Ejector Pump 1:00

FSTEP

Course: Driver/Operator: Aerial/Tiller Truck Operations (2012)
Hours: 40
17:00 hours instruction; 20:00 hours practical application, 3:00 hours testing
Designed For: Firefighters assigned to aerial/tiller apparatus
Description: This course is designed for the driver/operator responsible for operating fire apparatus equipped with an aerial device. Topics include inspecting, maintaining, and testing of aerial devices. Practical application requires driving an aerial apparatus including tiller operations, positioning and stabilizing the apparatus, and operating the aerial device.
Prerequisites: Fire Apparatus Driver/Operator 1A
Certification: None
Standard: 80% on summative exam
Driving and Practical Exercise: the standard is set by Authority Having Jurisdiction (AHJ).
Class Size: 30
Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course plan.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Aerial Apparatus Driver/Operator Handbook	Second	CFCA or FPP
▪ California Commercial Driver Handbook	Second	CFCA or FPP
▪ Manufacturer's Specifications		
REQUIRED INSTRUCTOR MATERIALS		
Aerial Apparatus Driver/Operator Handbook	Second	CFCA or FPP
Aerial Apparatus Driver/Operator Instructor Resource Kit	Second	CFCA or FPP
California Commercial Driver Handbook	Current	DMV
California Vehicle Code	Current	DMV
Title 49 CFR Transportation	2001	USGPO
Manufacturer's Specifications		

VENDORS		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	http://www.calchiefs.org/
DMV	Department of Motor Vehicles	http://apps.dmv.ca.gov/pubs/hdbk/driver_handbook_toc.htm
FPP	Fire Protection Publications (800-654-4055)	https://shop.ifsta.org/
USGPO	U. S. Government Printing Office	http://www.gpo.gov/

DRIVER/OPERATOR: AERIAL/TILLER TRUCK OPERATIONS COURSE PLAN

Unit 1: Course Introduction

Topic 1-1: Orientation and Administration 0:30

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to identify the classroom and facility requirements along the with the course completion requirements.

Enabling Learning Objectives (ELO):

1. 1. Identify facility and classroom requirements
   - Start and end times
   - Breaks
   - Restrooms
   - Food locations

- Smoking locations
- Emergency procedures
- Electronic devices
- Special needs and accommodations
- Other requirements

2. Review the course syllabus
   - Course objectives
   - Calendar of events
   - Course requirements
   - Student evaluation process (80% is required on the summative test)
   - Assignments and activities
   - Required student resources
   - Class participation requirements

Discussion Questions:

1. What are formative and summative tests?

Activities:

1. Complete all required registration and enrollment forms

Unit 2: Inspections, Tests, and Servicing Functions

Topic 2-1: Basic Inspection Requirements for Aerial and Tillers 2:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to describe and demonstrate the inspection requirements of aerial devices including a basic pretrip inspection, inspection of the cable, hydraulic, slides and roller, stabilizing, safety breathing air and communication systems and be able to identify the out of service criteria for aerials and tiller apparatus.

Enabling Learning Objectives (ELO):

1. Review a basic pretrip inspection
   - Battery(ies)
   - Braking
   - Cooling
   - Electrical
   - Fuel
   - Hydraulic
   - Oil/lubrication
   - Tires/rims
   - Steering
   - Belts
   - Others specific to DOT/DMV laws
2. Describe the specific inspection requirements for the different systems on aerial device
   - Cables
   - Aerial hydraulics
   - Slides and Rollers

- Stabilizing devices
- Aerial safety devices
- Breathing air
- Communications

3. Describe the specific inspection requirements for a tiller apparatus
   - Steering system
   - Brakes
   - Trailer
   - Lubrication
4. Identify out of service criteria for an aerial/tiller apparatus
5. Demonstrate a pretrip inspection of an aerial/tiller apparatus

Discussion Questions:

1. How often must pretrip inspections be conducted?
2. What are the main systems of an aerial device that need to be inspected?
3. What may place an aerial device out of service according to NFPA?

Activities:

1. Pretrip inspection on an aerial/tiller apparatus

Topic 2-2: Test Requirements for Aerial and Tillers..... 1:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to describe and demonstrate the test requirements of aerial devices including safety device for lower the aerial device without power.

Enabling Learning Objectives (ELO):

1. Describe the various tests required for aerial devices
2. Demonstrate the emergency operations of an aerial device

Discussion Questions:

1. What are the different types of tests that need to be performed on an aerial device?

Activities:

1. Perform an emergency lower of an aerial device without power

Topic 2-3: Servicing of Aerial and Tillers Apparatus 1:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to describe and demonstrate the servicing requirements of aerial devices including proper lubrication of the aerial and associated equipment

Enabling Learning Objectives (ELO):

1. Identify the service requirements for an aerial device
   - Intervals
   - Processes
   - Documentation
2. Demonstrate the servicing of an aerial device based on manufacturer's recommendations

Discussion Questions:

1. How often should an aerial be serviced?

Activities:

1. Perform a service on an aerial device

DRIVER/OPERATOR: AERIAL/TILLER TRUCK OPERATIONS COURSE PLAN

Unit 3: Review of Driver Operator Responsibilities

Topic 3-1: California Vehicle Codes..... 0:30

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to describe the laws associated with the operation of emergency vehicle.

Enabling Learning Objectives (ELO):

1. Describe the California Vehicle Code (CVC) sections associated with the operation of emergency vehicles
   - §65
   - §130
   - §21055 and §21056
   - Driving under the influence
2. Describe the CVC sections associated with liabilities
   - §17001
   - §17002
   - §17003
3. Define the minimum standards for a driver's license

Discussion Questions:

1. How does the CVC affect the operation of emergency vehicles?
2. What type of liability does a fire department assume?
3. What license is required to operate an emergency vehicle in California?

Activities:

1. To be determined by the instructor

Topic 3-2: Driver's Responsibilities 1:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to describe the responsibilities associated with the operation of an aerial/tiller apparatus.

Enabling Learning Objectives (ELO):

1. List expectations of emergency vehicle operator
   - Safety of crew
   - Safety of citizens
2. Describe the authority having jurisdiction (AHJ) policies and procedures for the operation of an aerial/tiller
3. List the National Fire Protection Association (NFPA) standards that are relevant to emergency vehicle operations
   - 1002
   - 1451
   - 1500
   - 1915
4. Describe the requirements of Title 49 CFR on a driver's license

Discussion Questions:

1. How does the CVC affect the operation of emergency vehicles?

2. What type of liability does a fire department assume?

Activities:

1. To be determined by the instructor

Unit 4: Operation of an Aerial/Tiller Fire Apparatus

Topic 4-1: Operating and Control of Aerial/Tiller Fire Apparatus..... 2:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to identify and describe the characteristic of defensive driving, the principles of tiller operations, what effects vehicle control, how to communicate between the tiller and driver and the principles of driving at night and in adverse weather conditions.

Enabling Learning Objectives (ELO):

1. Define the characteristics of a defensive driver
2. Identify the principles of tiller operations
3. Describe the effects on vehicle control of general steering reaction.
   - Momentum
   - Inertia
   - Centrifugal force
   - Weight transfer
   - Steering methods
   - Driving zones
   - Vehicle control
4. Describe the methods of communication between the driver and the tiller position
5. Describe the methods used to negotiate intersection
6. Identify the principle of driving at night and in adverse weather conditions
7. Describe the manufactures operational limitation of the apparatus.

Discussion Questions:

1. What are the characteristics of a defensive driver?
2. What are the basic principles of steering control in a tiller?

Activities:

1. To be determined by the instructor

Topic 4-2: Operating Aerial and Tiller Apparatus 10:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to operate and aerial or aerial truck with a tiller through practical driving exercises as well as on a public roadway not striking the vehicle or obstructions.

Enabling Learning Objectives (ELO):

1. Operate aerial apparatus through the practical driving exercises as specified in §4.3.2 through §4.3.5 of NFPA 1002 current edition
   - Serpentine
   - Ally Dock
   - Close maneuver turn around
   - Diminishing clearance

- Station Backing

2. Operate aerial apparatus on a public way meeting the specific maneuvers as identify in §4.3.1 of NFPA 1002
   - Refer to standard for description of maneuvers

Discussion Questions:

1. What are the five practical driving exercises?

Activities:

1. Operate an aerial apparatus through the practical driving exercises as identified in §4.3.2 through §4.3.5, so that each exercise is performed without striking the vehicle or obstructions
2. Drive apparatus on a public way meeting the requirements of §4.3.1 maneuvers
   - Note: This activity is completed outside of the scheduled class time

Unit 5: Aerial Device Operations

Topic 5-1: Stabilizing Aerial Apparatus 1:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to describe and operate an aerial apparatus stabilization system.

Enabling Learning Objectives (ELO):

1. Describe the hydraulic system
   - Pump
   - Pressure relief
   - Tank
   - Operating controls
   - Back-up system
   - Other requirements
2. Describe the manufactures recommendation for stabilization
3. Describe the effects of topography and ground conditions on stabilization
4. Operate the stabilization system creating a stable platform for operating the aerial device

Discussion Questions:

1. How is the power transferred to the hydraulic system?
2. When stabilizing an aerial what ground condition should be observed?

Activities:

1. Students will demonstrate the operation of the hydraulic stabilization systems providing for a stable platform for the operation of the aerial device.

Topic 5-2: Maneuvering and Positioning an Aerial Device 4:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to describe and operate an aerial apparatus stabilization system.

Enabling Learning Objectives (ELO):

1. Describe the safe operating limits of a given aerial device
   - Angle of inclination
   - Maximum tip loads
   - Angle from chassis axis

- Reach

2. Describe the gauges and operating controls of the aerial device
3. Describe the emergency operating system
4. Identify the electrical and communication systems
5. Describe the manual rotation and lower systems
6. Describe the safety override and the hazards of using them.
7. Describe the aerial device safety
   - Locking system
   - Cable system
   - Operation near electrical hazards
8. Describe the procedures for bedding the aerial device

Discussion Questions:

1. What are the emergency operating systems on an aerial device?
2. What kinds of electrical systems are on aerial devices?

Activities:

1. To be determined by the instructor

Topic 5-3: Operating the Aerial Device 10:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able operate the aerial device maneuvering it from each control station given an incident location.

Enabling Learning Objectives (ELO):

1. Demonstrate the operation of the aerial device
2. Demonstrate bedding the aerial device

Discussion Questions:

1. What is the process for raising an aerial device?
2. What are your concerns when operating near a structure?

Activities:

1. Raise, rotate, extend, and position the aerial device to a specific location
2. Lock, unlock retract, lower, and bed an aerial device

Unit 6: Apparatus Placement

Topic 6-1: General Apparatus Placement..... ..... 1:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to identify the general apparatus placement at the various types of emergencies.

Enabling Learning Objectives (ELO):

1. Identify the considerations for apparatus placement at structure fires
2. Identify the consideration for apparatus placement at a rescue
3. Identify the consideration for placement at other types of emergencies

Discussion Questions:

1. What are your considerations when placing an aerial apparatus at the scene of a structure fire?
2. What are tactical priorities that may determine apparatus placement?

Activities:

1. To be determined by the instructor

Topic 6-2: Apparatus Placement for use of an Elevated Master Stream…… 3:00

Terminal Learning Objective (TLO): At the end of this topic, the student will be able to deploy and operate an elevated master stream and flow the desired amount of water at an incident.

Enabling Learning Objectives (ELO):

1. Identify the nozzle reactions
2. Identify the range of operation
3. Identify the weight limitations when operating with an elevated master stream
4. Demonstrate deploying and connecting a water supply to a master stream device
5. Operate an elevated master stream manually or remotely

Discussion Questions:

1. What are your considerations when operating an elevated master stream device?
2. What are tactical priorities that may determine apparatus placement when using an elevated master stream?

Activities:

1. Place an elevated master stream into operations

Fire Apparatus Driver/Operator 1A: Emergency Vehicle Operations (2008)

Hours: 40

Designed For: Fire service emergency response personnel

Description: Updated to reflect current California Vehicle Code (CVC) requirements and the 2009 NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications. This course provides the student with information on driver responsibilities, recognized standards, and related laws for fire apparatus. Topics include basic inspections, documentation, maintenance, and troubleshooting fire apparatus, and techniques on driving and positioning fire apparatus. Each student also has the opportunity to increase his or her driving skills during simulated driving conditions.

Prerequisites: Fire apparatus driving experience on a public way. Option 1: Signed verification from the Fire Chief (form is on the SFT website); Option 2: California Class B driver's license, fire fighter restricted; or Option 3: California Class A, B, or C driver's license, fire fighter endorsed
Fire Fighter I training recommended

Certification: Fire Apparatus Driver/Operator I

Class Size: 25

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
California Commercial Driver Handbook	Current	DMV
Pumping Apparatus Driver/Operator Handbook	Second	CFCA or FPP
Student Supplement	2011	SFT
REQUIRED INSTRUCTOR MATERIALS		
California Commercial Driver Handbook	Current	DMV
Instructor Created Summative Exam	Current	Instructor
Instructor Guide	2011	SFT
PowerPoint Slides on CD-ROM (Optional)	2008	SFT
Pumping Apparatus Driver/Operator Handbook	Second	CFCA or FPP
Student Supplement	2011	SFT

VENDORS		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE APPARATUS DRIVER/OPERATOR 1A COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on driver responsibilities, recognized standards, and related laws for fire apparatus.
- Information and techniques on basic inspections, documentation, maintenance, and troubleshooting fire apparatus.
- Information and techniques on driving and positioning fire apparatus.
- The opportunity to increase their driving skills during simulated driving conditions.

Course Content: 40:00

Unit 1: Responsibilities, Standards, and Laws
- Orientation and Administration 1:00
- Fire Apparatus Driver/Operator Responsibilities 0:45
- Legal Aspects of Emergency and Nonemergency Driving 1:00

Unit 2: Inspection, Basic Maintenance, Documentation, and Troubleshooting
- Introduction to Inspection, Basic Maintenance, and Troubleshooting 0:30
- Inspection and Basic Maintenance of the Driver and Crew Areas, Apparatus Body, and Compartmentation 0:15
- Inspection and Basic Maintenance of the Frame, Axles, Steering and Suspension Systems, Driveline, Wheels, and Tires 0:15
- Troubleshooting the Frame, Axles, Steering and Suspension Systems, Driveline, Wheels, And Tires 0:30
- Inspection and Basic Maintenance of Engine Systems 0:45
- Troubleshooting Engine Systems 0:30

FIRE APPARATUS DRIVER/OPERATOR 1A COURSE OUTLINE

- Inspection and Basic Maintenance of the Transmission and Clutch 0:15
- Troubleshooting the Transmission and Clutch 0:15
- Inspection and Basic Maintenance of the Starting, Charging, and Other Electrical Systems 0:30
- Troubleshooting the Starting, Charging, and Other Electrical Systems 2:00
- Inspection and Basic Maintenance of Brake Systems 1:30
- Troubleshooting Brake Systems 1:00
- Inspection and Basic Maintenance of Auxiliary and Accessory Equipment 0:15
- Inspection Documentation and Reports 0:15
- Pretrip Inspection Procedures 2:00

Unit 3: Driving Practices

- Accident Statistics and Liability 0:30
- Principles of Defensive Driving 2:00
- Driving Apparatus to Incidents 1:00
- Principles of Off-Road Driving 1:00
- Principles of Braking and Stopping 0:30
- Principles of Steering and Load Control 1:30
- Driving During Adverse Weather Conditions 0:15
- Positioning Apparatus 1:00

Unit 4: Mandatory Driving Exercises

- Introduction to the Mandatory Driving Exercises 0:30

Unit 5: Optional Driving Exercises

- Introduction to the Optional Driving Exercises 0:15

Practice and Testing the Driving Exercises 14:00

Unit Tests 3:00

Course Review and Summative Exam 1:00

Fire Apparatus Driver/Operator 1B: Pump Operations (2008)

Hours: 40

Designed For: Fire service emergency response personnel

Description: Updated to reflect the 2009 NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications and requires a textbook and student supplement. This course provides the student with information on pump construction and theory of pump operations. Topics include methods for performing basic hydraulics and techniques on basic inspections, documentation, maintenance, and troubleshooting fire pumps. Each student also has the opportunity to increase his or her pumping skills during simulated pumping conditions.

Prerequisites: California drivers license, Class A, B or C, with a fire fighter endorsement
Fire Fighter I training recommended

Certification: Fire Apparatus Driver/Operator I

Class Size: 25

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
Pumping Apparatus Driver/Operator Handbook	Second	CFCA or FPP
Student Supplement	2008	SFT
REQUIRED INSTRUCTOR MATERIALS		
Instructor Created Summative Exam	Current	Instructor
Instructor Guide	2008	SFT
PowerPoint Slides on CD-ROM (Optional)	2008	SFT
Pumping Apparatus Driver/Operator Handbook	Second	CFCA or FPP
Student Supplement	2008	SFT

VENDORS		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE APPARATUS DRIVER/OPERATOR 1B COURSE OUTLINE

Course Objectives: To provide students with…

- Information on pump construction and theory of pump operations.
- Methods for performing basic hydraulics.
- Information and techniques on inspections, documentation, maintenance, and troubleshooting.
- The opportunity to increase their pumping skills during simulated pumping conditions.

Course Content: 40:00

Unit 1: Responsibilities, Standards, and Laws
- Orientation and Administration 1:30
- Fire Apparatus Driver/Operator Responsibilities 0:30

Unit 2: Fire Pump Construction and Theory
- Types of Fire Pumps 0:45
- Pump Mounting and Drive Arrangements 0:30
- Pump Piping and Valves 0:15
- Automatic Pressure Control Devices 0:15
- Priming Devices 0:15
- Pump Panel Instrumentation 0:15
- Auxiliary Cooling Devices 0:15

Unit 3: Hydraulics
- Basic Hydraulic Terminology and Symbols 0:30
- Mathematics Review 1:00
- Characteristics of Water and Principles of Pressure 0:30
- Principle Features of Water Systems 0:15
- Nozzle Theory 0:30
- Calculating Gallons Per Minute 0:30

FIRE APPARATUS DRIVER/OPERATOR 1B COURSE OUTLINE

- Principles of Friction Loss 0:15
- Friction Loss Formulas and Calculations 4:00
- Pump Discharge Pressure 0:30
- Fireground Hydraulic Calculations 1:00

Unit 4: Inspection, Maintenance, and Troubleshooting

- Inspecting the Pump Drive Systems 0:15
- Inspecting the Pump Priming Systems 0:15
- Inspecting the Pump Pressure Control Systems 0:15
- Pump Service Testing 0:45
- Maintenance of the Pump and Control Systems 1:00

Unit 5: Pump Practices

- Making the Pump Operational (From Tank) 0:30
- Transitioning to an External Water Supply 0:30
- Operating From a Hydrant 0:30
- Principles and Practices of Drafting Operations 0:30
- Principles of Relay Pump Operations 1:30
- Troubleshooting Pump Operations 1:00
- Principles of Tandem Pump Operations 0:15
- Principles of Dual Pumping Operations 0:15
- Principles and Practices of Foam Operations 1:00
- Sprinkler and Standpipe Support 0:30

Unit 6: Pumping Exercises

- Introduction to the Pumping Exercises 0:30

Practice and Testing the Pumping Exercises 13:00
Unit Tests 2:00
Course Review and Summative Exam 2:00

Auto Extrication (1996)

Hours: 16

Designed For: All fire service personnel

Description: Provides hands-on experience in the procedures and systems utilized during an automobile extrication. Subjects covered include: Auto extrication, types of hand and power tools, removing windows, opening doors, removing roofs, pulling steering wheels, moving foot pedals, raising dashboards, pulling seats, stabilization of vehicles, and simulated rescues of trapped victims.

Prerequisites: None

Certification: None

Class Size: 40

Student/Instructor: Ratio 10:1 (for skills proficiency)

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

AUTO EXTRICATION COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the incidents they might encounter and the procedures and systems used during auto extrication.
- Information on the types of auto extrication tools and their uses.
- The proper procedure for maintaining auto extrication tools.
- An opportunity to perform a rescue and use auto extrication tools during an exercise involving simulated victims and damaged vehicles.

Course Content 16:00

- Introduction and Course Procedures 0:30
- Safety Precautions 0:10
- Auto Extrication Size-up 1:00
- Types of Incidents That May be Encountered 1:00
- Types of Tools and Their Application 1:00
- Incident Command System for Auto Extrication 0:30
- How to Remove the Front Windshield 0:20
- How to Remove Side and Rear Windows 0:10
- How to Open a Door Using a Panel Cutter 0:10
- How to Open a Door Using a Spreader and Wedge 0:20
- How to Pull a Door Using a Come-along 0:15
- How to Remove a Roof Using an Air Chisel 0:10
- How to Cut "A" Pillars Using a Hacksaw 0:10
- How to Remove a Roof Using an Air Chisel, Hacksaw, and High-lift Jack 0:20
- How to Pull a Steering Wheel Using a Come-along 0:15
- How to Pull a Steering Wheel Using a High-lift Jack 0:15
- How to Pull a Steering Wheel Using Seatbelts and the Hood 0:10
- How to Pull a Steering Wheel Using a Scissor Jack 0:10
- How to Cut a Steering Wheel Ring With a Bolt Cutter 0:05
- How to Move Foot Pedals Using Seatbelts 0:10
- How to Raise a Dash Using High-lift Jacks 0:20
- How to Pull a Front Seat Using a Come-along 0:10
- How to Pull a Front Seat Using a High-lift Jack 0:10
- How to Take Out a "B" Pillar Using an Air Chisel 0:10
- How to Use Cribbing to Stabilize a Vehicle 0:10
- How to Make a Three-door Out of a Two-door for Rear Seat Rescue 0:15
- Maintenance of Auto Extrication Tools 0:15
- Using Auto Extrication Tools on Vehicles 4:00
- Simulation Rescues of Trapped Victims 3:30

Command and Control of the RIC Deployment (2011)

Hours: 8

Designed For: Fire officers who may be Incident Commanders at a fire fighter emergency

Description: This command level awareness course provides students with the terminology and methodology that is employed during a RIC deployment. Classroom simulations based on case studies allow students to participate in simulated RIC deployments. Students who wish to progress to the operational level may initiate a task book for additional experience.

Prerequisites: I-200, Fire Command 1A, and successful completion of pre-course work RIC Tactics or RIC Operations is recommended

Certification: None

Class Size: 25

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	2010	SFT Website
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	2010	SFT
▪ PowerPoint Slides on CD-ROM (Optional)	2010	SFT
▪ Student Manual	2010	SFT Website

VENDORS		
SFT Website	Online Instructor Resources	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

COMMAND AND CONTROL OF THE RIC DEPLOYMENT COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on rapid intervention crew terminology and the tools required to conduct a rescue operation.
- A methodology for conducting a risk management assessment of structural fire fighting critical fireground factors.
- An analysis of fire fighter line-of-duty injuries and fatalities case studies, taking into account both risk and critical fireground factors.
- A command awareness and the control techniques required to effectively manage an emergency traffic event.
- Techniques to properly manage an emergency traffic situation when fire fighters become lost or trapped inside a burning structure.

Course Content 8:00

- Orientation and Administration 0:45
- Critical Fireground Factors and the Risk Management Process…… 1:15
- Fire Fighter Line-of-duty Death and Injury Case Studies…… 1:00
- Command Awareness and Managing A RIC Deployment 1:30
- Emergency Traffic Simulations 3:30

Confined Space Rescue Awareness (1995)

Hours: 7

Designed For: All fire service personnel

Description: This course provides instruction in identifying a permit and non-permit required confined space, the hazards associated with confined spaces, target industries and hazards, state regulations, communications, and equipment requirements. This course does not qualify participants to make permit required entries.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	1995	SFT

VENDORS	
SFT	State Fire Training Bookstore (916-445-8158)

CONFINED SPACE RESCUE AWARENESS COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the codes that affect operations within confined spaces.
- Information to identify confined spaces and permit confined spaces.
- Information on the hazards of confined spaces.
- Information on the equipment and procedures required to deal with a confined space rescue safely and legally.
- Information on the basic operational positions, and their responsibilities as set forth by Cal/OSHA.

Course Content 7:00

- Introduction to Cal/OSHA Code, Confined Space Identification and Dangers 1:30
- Atmospheric Hazards and Air Monitors 1:00
- Physical and Engulfment Hazards 0:30
- Lock-Out/Tag-Out Procedures and Entry Permits 0:30
- Ventilation Equipment and Techniques 0:30
- Respiratory Equipment and Techniques 0:30
- Communications Equipment and Techniques 0:30
- Entrant Retrieval Equipment 0:30
- Confined Space Operational Positions and Responsibilities 0:30
- Course Review and Final Exam 1:00

Emergency Response to Alternative Fuel Vehicles (2010)

Hours: 16

Designed For: All fire service personnel

Description: This training program provides 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

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 Website
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	2010	SFT Website
▪ PowerPoint Slides on CD-ROM	2010	SFT Website

VENDORS		
SFT Website	State Fire Training Website	http://osfm.fire.ca.gov/training/alternativefuelvehicles.php

EMERGENCY RESPONSE TO ALTERNATIVE FUEL VEHICLES COURSE OUTLINE

Course Objectives: To provide the student with…

- An overview of the social, economic and ecological issues of alternative fuel vehicles
- Information on the hazards associated with each fuel/energy source
- Techniques to identify alternative fuel/energy vehicles
- Information on the safety features and components of the refueling facilities
- An application of standard operating guidelines to new fuel/energy vehicle technologies

Course Content 16:00

- Introduction and Course Procedures 0:30
- Introduction to Internal Combustion Vehicles 0:15
- Ethanol Fuel 1:00
- Biodiesel 0:45
- Compressed Natural Gas (CNG) 1:00
- Liquified Natural Gas Propane (LNG) 1:00
- Propane 0:30
- Hydrogen 1:00
- Introduction to Electric Vehicles 0:15
- Electric Vehicles 1:00
- Hybrid Electric Vehicles 0:30
- Hybrid Electric Buses 0:30
- Fuel Cell Vehicles 1:00
- Introduction to Emergency Response 0:15
- Alternative Fuel Vehicle Emergencies & Fires 1:00
- Extrication Safety & Organization 2:00
- Vehicle & Refueling Activities 4:00

Fire Control 1: Basic Fire Chemistry (1996)

Hours: 16

Designed For: All entry-level fire service personnel

Description: This course is a basic overview of fire chemistry and fire behavior designed for the beginning or a volunteer fire fighter. Includes: Classes of fire, fundamentals of heat transfer, fire characteristics of materials, products of combustion, hazardous and explosive materials, extinguishing agents, size-up, and exposure protection.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

FIRE CONTROL 1 COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on how and why fires start.
- Information on how and why fires spread.
- Information on how and why fires are controlled.

Course Content 16:00

1. Course Introduction 0:30
2. Classes of Fire. 0:30
3. Fundamentals of Combustion 1:00
4. Fundamentals of Heat Transfer 0:30
5. Fundamentals of Extinguishment. 0:30
6. Fire Characteristics of Ordinary Combustible Solids 0:30
7. Fire Characteristics of Flammable and Combustible Solids 0:30
8. Products of Combustion 1:00
9. Hazardous and Explosive Materials. 1:00
10. Effects of Extinguishing Agent Application 1:00
11. Procedures for Size-Up 1:00
12. Rescue Techniques 1:00
13. Exposure Protection Tactics 1:00
14. Ventilation Methods and Procedures 1:00
15. Methods Used to Confine Fire 1:00
16. Methods Used to Extinguish Fire 1:00
17. Methods Used to Overhaul Fire 0:30
18. Salvage Operations 1:00
19. Pre-Fire Plans 1:00
20. Methods Used to Attain Additional Assistance During Multiple Alarm Fires 0:30

Fire Control 2: Basic Operations – Structural (1996)

Hours: 16

Designed For: All entry-level fire service personnel

Description: A hands-on course designed to provide the student with information, methods, and techniques for operating basic fire fighting tools and carrying out basic fire fighting evolutions. Areas covered include Hose, nozzles, and fittings, ground ladders, self-contained breathing apparatus, pump operations in theory, pump operations in the field, and the use of fire extinguishers.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

FIRE CONTROL 2 COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the types of tools used for basic fire operations.
- Methods and techniques for utilizing basic fire fighting tools.
- Methods and techniques for maintaining basic fire fighting tools.
- Information and utilization of pump operations and procedures.

Course Content 16:00

- Introduction to Basic Operations 1:00
- Use of Hose Nozzle and Fittings 2:30
- Use of Ground Ladders 2:30
- Use of Self Contained Breathing Apparatus 2:30
- Pump Operations in Theory 2:30
- Pump Operations in the Field 2:30
- Use of Fire Extinguishers 2:30

Fire Control 3A: Structural Fire Fighting in Acquired Structures (2009)

Hours: 16

Designed For: All fire service personnel

Description: This course is designed to develop fundamental skills in combating structure fires by providing the students with a thorough understanding of fire behavior, ventilation procedures and techniques, interior fire attack, and exterior fire attack. In many cases, this will be the fire fighter's first exposure to live structural fire fighting. The structures used in class are generally donated buildings with a written agreement between the owner and the authority having jurisdiction (AHJ) specifying the live fire training that will be conducted and acknowledges the expected condition of the structure upon completion of the training.

Prerequisites: Fire Control 2 (recommended)

Certification: None

Class Size: Dependent on the number of structures and size of the burn

Student/Instructor: Ratio: 10:1 (Skills Proficiency)

Restrictions: This course requires both a Primary Coordinator and a Senior Coordinator. This course also requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Course Guide	2009	SFT Website

VENDORS		
SFT Website	State Fire Training Website	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE CONTROL 3A COURSE OUTLINE

Course Objectives: To provide the student with hands-on fire fighting experience in four mandatory exercises…

- Fire behavior.
- Interior attack.
- Ventilation.
- Exterior attack.

Course Content 8:00
- Introduction and Briefing 0:30
- Fire Behavior Exercise 2:00
- Ventilation Exercise 2:00
- Interior Attack Exercise 1:30
- Exterior Attack Exercise 1:30
- Debriefing 0:30

Fire Control 3B: Structural Fire Fighting in Live-fire Simulators (2009)

Hours: 16
Designed For: All fire service personnel
Description: This course is designed to develop fundamental skills in combating structure fires by providing the students with a thorough understanding of fire behavior, ventilation procedures and techniques, interior fire attack, and exterior fire attack using a live-fire simulator. In many cases, this will be the fire fighter's first exposure to live structural fire fighting.
Prerequisites: Fire Control 2 (recommended)
Certification: None
Class Size: 40
Student/Instructor: Ratio: 10:1 (Skills Proficiency)
Restrictions: This course requires both a Primary Coordinator and a Senior Coordinator. This course also requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Course Guide	2009	SFT Website

VENDORS		
SFT Website	State Fire Training Website	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE CONTROL 3B COURSE OUTLINE

Course Objectives: To provide the student with hands-on fire fighting experience in four mandatory exercises…

- Fire behavior.
- Interior attack.
- Ventilation.
- Exterior attack.

Course Content 8:00
- Introduction and Briefing 0:30
- Fire Behavior Exercise 2:00
- Ventilation Exercise 2:00
- Interior Attack Exercise 1:30
- Exterior Attack Exercise 1:30
- Debriefing 0:30

Fire Control 4: Oil and Gas Fire Fighting (1997)

Hours: 16

Designed For: All fire service personnel

Description: This course utilizes live fire situations to hands-on experience in combating fire involving LPG and flammable liquids. Topics include flammable liquid and gas fire behavior, safety, extinguishing agents, transportation fires, water flow requirements, and live fire fighting.

Prerequisites: None

Certification: None

Class Size: 40

Student/Instructor: Ratio: 10:1 (Skills Proficiency)

Restrictions: This course requires both a Primary Instructor and a Senior Instructor. This course also requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

FIRE CONTROL 4 COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the concept of chemistry of foam for fire suppression.
- Information on the use of proportional and nonproportional concentrate injection systems.
- Methods for operation and performance of fog nozzles, aspirating nozzles, and foam tubes (NAFS) as well as compressed air foam systems (CAFS).
- Information on application techniques, current research, and report on the use of Class B foaming agents for urban, rural, refinery, and pipeline emergencies.

Course Content 16:00
- Introduction 0:30
- Characteristics of Flammable Liquids 0:30
- Resources Available for Spills Without Fire 0:15
- Safety Procedures for Foam Application 0:15
- Foaming Agents 1:00
- Introduction to Pipeline Related Emergencies 1:00
- Eductors, Proportioners, and Systems 1:00
- Aspirating Nozzles and Foam Delivery 0:15
- Flammable Liquids Case Histories and Review 1:15
- Field Exercises 10:00

Fire Control 4A: Flammable Gases Fire Fighting (1996)

Hours: 6

Designed For: All fire service personnel

Description: This course utilizes the flammable liquids and gas (FLAG) trailer to generate live fire situations and provide hands-on experience in combating fires involving flammable gases. Subjects include flammable gas fire behavior, safety, control methods and extinguishing agents, transportation fires, and water flow requirements.

Prerequisites: None

Certification: None

Class Size: 40

Student/Instructor: Ratio: 10:1 (Skills Proficiency)

Restrictions: This course requires both a Primary Instructor and a Senior Instructor. This course also requires a site with adequate materials, equipment, and FLAG trailer to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	1996	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE CONTROL 4A COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the characteristics and hazards of flammable gases.
- Methods and procedures on handling flammable gases whether involved in fire or not.
- An opportunity to utilize control methods on flammable gases.

Course Content 6:00

- Course Introduction and Administration 0:30
- Characteristics of Flammable Gases 0:30
- Hazards of Flammable Gases 0:30
- Tactics to Utilize on Flammable Gases Not Involved With Fire 0:30
- Tactics to Utilize on Flammable Gases Involved With Fire 0:30
- BLEVE Situations 0:30
- Field Exercises.....3:00

Fire Control 4B: Flammable Liquids Fire Fighting (1996)

Hours: 6
Designed For: All fire service personnel
Description: This course utilizes the flammable liquids and gas (FLAG) trailer to generate live fire situations and provide hands-on experience in combating flammable and combustible liquid fires. Subjects include fire behavior, safety, control methods and extinguishing agents, transportation fires, and water flow requirements.
Prerequisites: None
Certification: None
Class Size: 40
Student/Instructor: Ratio: 10:1 (Skills Proficiency)
Restrictions: This course requires both a Primary Instructor and a Senior Instructor. This course also requires a site with adequate materials, equipment, and FLAG trailer to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	1996	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE CONTROL 4B COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the characteristics and hazards of flammable liquids.
- Methods and procedures on handling flammable liquids whether involved or not involved with fire.
- Laws and regulations pertaining to flammable liquids in California and at the national level.
- An opportunity to utilize control methods on flammable liquids.

Course Content 6:00
- Course Introduction and Administration 0:30
- Characteristics of Flammable Liquids 0:30
- Hazards of Flammable Liquids 0:30
- Tactics to Utilize on Flammable Liquids Not Involved With Fire 0:30
- Tactics to Utilize on Flammable Liquids Involved With Fire. 0:30
- Case Studies of Flammable Liquid Incidents 0:30
- Field Exercises.....3:00

Fire Control 4A and 4B: Flammable Gases and Liquids Fire Fighting (1996)

Hours: 8
Designed For: All fire service personnel
Description: This course utilizes the flammable liquids and gas (FLAG) trailer to generate live fire situations and provide hands-on experience in combating flammable and combustible liquid fires. Subjects include fire behavior, safety, control methods and extinguishing agents, transportation fires, and water flow requirements.
Prerequisites: None
Certification: None
Class Size: 40
Student/Instructor: Ratio: 10:1 (Skills Proficiency)
Restrictions: This course requires both a Primary Instructor and a Senior Instructor. This course also requires a site with adequate materials, equipment, and FLAG trailer to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		

REQUIRED INSTRUCTOR MATERIALS	EDITION	VENDORS
▪ Instructor Guide	1996	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE CONTROL 4A/4B COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the characteristics and hazards of flammable gases and liquids.
- Methods and procedures on handling flammable gases and liquids whether involved in fire or not.
- Laws and regulations pertaining to flammable liquids in California and at the national level.
- An opportunity to utilize control methods on flammable gases and liquids.

Course Content 8:00
- Course Introduction and Administration 0:30
- Characteristics of Flammable Gases and Liquids 0:45
- Hazards of Flammable Gases and Liquids 0:45
- Tactics to Utilize on Flammable Gases and Liquids Not Involved With Fire 0:45
- Tactics to Utilize on Flammable Gases and Liquids Involved With Fire 0:45
- BLEVE Situations 0:30
- Case Studies of Flammable Liquid Incidents 0:30
- Field Exercises 3:30

Fire Control 5: Aircraft Rescue and Fire Fighting (1988)

Hours: 16 without a live burn or 24 with a live burn

Designed For: All fire service personnel

Description: This course provides students with the methods and techniques necessary for crash fire rescue services at airports. Subjects include using conventional fire and specialized CFR apparatus, CFR extinguishing agents, types of aircraft, standby procedures, aqueous film forming foam, dual agent systems, and operations at crash scenes. The 24-hour class delivery includes a live burn.

Prerequisites: None

Certification: None

Class Size: 40

Student/Instructor: Ratio: 10:1 (Skills Proficiency)

Restrictions: This course requires a Senior Instructor if the class includes the live burn. This course also requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
None		

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE CONTROL 5 COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on organizing and equipping an airport CFR service.
- Information on procedures and techniques for CFR operations.
- The methods and techniques of utilizing CFR tools and equipment.
- Proper procedures on the maintenance and storage of CFR tools and equipment.

Course Content 24:00

- Identify Organization of an Airport CFR System 0:30
- Identify Types of Specialized Tools and Equipment Used for CFR 0:20
- Utilizing Conventional Fire Apparatus and Equipment for CFR 0:20
- Identify Types of Extinguishing Agents Used for CFR 0:30
- Identify Types of Aircraft 0:30
- Identify Safety Procedures When Working With Aircraft 0:20
- Describe Standby Procedures for Incoming Aircraft With Possible CFR Problems 0:30
- Identify Methods of Positioning Apparatus and Personnel at the CFR Scene 1:00
- Operate Dry and CO2 Chemical Fire Extinguishers 1:00
- Operate Pressurized Water Fire Extinguishers With AFFF Additive 1:00
- Operate Dry Chemical and PW With AFFF Extinguishers in Dual Agent Application 1:30
- Operate Conventional and Specialized CFR Apparatus 2:00
- Use a Refractometer to Verify Proper Foam Delivery 0:30
- Position Apparatus for CFR Standby Position 2:00
- Position Apparatus at an On-Field Crash Position 2:00
- Use Specialized CFR Apparatus to Control an On-Field Crash 4:00
- Use Conventional Apparatus to Control an On-Field Crash 4:00
- Recharge Specialized CFR Apparatus 0:30
- Inspect and Maintain Specialized CFR Apparatus 1:00
- Store Airport CFR Apparatus 0:30

Fire Control 6: Wildland Fire Fighting Essentials (1992)

Hours: 16
Designed For: All fire service personnel
Description: This course provides information, methods, and techniques for the utilization of the California Fire and Rescue Mutual Aid Plan, Incident Command System, wildland fire fighting strategy and tactics, structure triage, terminology, survival skills and operating safely in a wildland fire-fighting incident.
Prerequisites: None
Certification: None
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	1992	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE CONTROL 6 COURSE OUTLINE

Course Objectives: To provide the student with…

- An overview of the California Fire and Rescue Mutual Aid Plan and their responsibilities participating in a strike team.
- Information using the ICS during emergency operations while responding as strike team.
- A variety of methods and techniques to operate in a wildland suppression effort with safety.
- An opportunity to apply major principles of strategy and tactics in wildland fire fighting operations.
- The tactics and methods to provide structure protection during wildland fire suppression.
- Wildland fire fighting survival skills for potential extreme wildland fire conditions.

Course Content 16:00
- Orientation and Administration 0:30
- Wildland/Urban Interface Fire 1:00
- Concepts of ICS Organization 2:00
- State Fire and Rescue Mutual Aid Plan 1:00
- Surviving the Strike Team Response 1:00
- "Agency Specific" Strike Team Standard Operating Procedures 1:00
- Wildland Fire Terminology 0:30
- Factors Affecting Wildland Fires 1:00
- Defensive and Offensive Strategies in Wildland Fire Fighting 0:30
- The Use of Direct and Indirect Attacks on Wildland Fires 0:30
- Structure Triage 1:00
- Using Structures and Vehicles for Refuge in Wildland Fires 0:30
- Wildland Fire Safety 1:00
- Safety Precautions to Be Used Around Aircraft 0:30
- Fundamentals of Fire Shelters 2:00
- How to Deploy Fire Shelters 0:30
- Course Review and Evaluation 1:30

Fire Control 7: Wildland Fire Fighting

Hours: 16

Designed For: All fire service personnel

Description: This course provides hands-on experience in fighting wildland or agricultural crop fires. Exercises include: Fire behavior, hand tools, helicopter support, dozer operations, mobile pumping, backfiring/burning out safety, progressive hose lays, water tender shuttle, initial attack, and wildland fire investigation.

Prerequisites: Fire Control 6 (recommended)

Certification: None

Class Size: 40

Student/Instructor: Ratio: 10:1 (Skills Proficiency)

Restrictions: This course requires both a Primary Instructor and a Senior Instructor. This course also requires a site with adequate materials and equipment to deliver the training according to the course outline. A course outline must be submitted and approved by State Fire Training.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

FIRE CONTROL 7 COURSE OUTLINE
▪ None

*****CURRICULUM DISCONTINUED DECEMBER 31, 2015*****

Fire Fighter I (2001)

Hours: 259 plus manipulative performance testing

Designed For: Entry-level fire fighters

Description: This course provides the fire fighter with the knowledge and skills to safely perform, under minimal supervision, essential and advanced fireground tasks, basic rescue operations, basic fire prevention and fire investigation tasks, and to use, inspect, and maintain fire fighting and rescue equipment.

Prerequisites: None

Certification: Fire Fighter I

Class Size: Department determination

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Various Fire Service Training Manuals (refer to Instructor Guide)		CFCA or FPP Delmar JB FIRESCOPE NWCG

REQUIRED INSTRUCTOR MATERIALS	EDITION	VENDORS
▪ Instructor Guide	2001	SFT
▪ Fire Fighter I Training Record (available on-line)	2001	SFT

VENDORS		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
Delmar	Delmar Thomson Learning (800-347-7707)	esales@thomsonlearning.com
FIRESCOPE	Firefighting Resources of California Organized for Potential	www.firescope.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
JB	Jones and Bartlett Publishers (800-832-0034 x2)	www.jbpub.com
NWCG	National Wildlife Coordinating Group (208-387-5119)	www.nwcg.gov
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

CFSTES

Course: Fire Fighter I (2013)
Hours: 394:30
Designed For: Entry level fire fighter
Description: This course provides the skills and knowledge needed for the entry level professional fire fighter to perform his/her duties safely, effectively, and competently. The curriculum is based on the 2013 edition of NFPA 1001 Standard for Fire Fighter Professional Qualifications, the 2012 edition of NFPA 1051 Standard for Wildland Fire Fighter Professional Qualifications, and the 2008 edition of NFPA 472 Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents. The seven overarching themes of the California State Fire Fighter I curriculum are: general knowledge germane to the profession, fire department communications, fireground operations, rescue operations, preparedness and maintenance, wildland suppression activities, and hazardous materials/WMD..
Prerequisites: Minimum of Public Safety First Aid and CPR (CA Health and Safety Code 1797.182)
Corequisites: Confined Space Awareness (CA Code of Regulations, Title 8, Section 5157)
Introduction to the Incident Command System (ICS-100), FEMA
National Incident Management System, An Introduction (IS-700.A), FEMA
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%. Complete all mandatory skills testing..
Max. Class Size: 50
Instructor Level: Training Instructor 1A and 1B
Instructor/ Student Ratio: 1:50 (Lecture); 1:10 (Skills)
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fundamentals of Fire Fighter Skills (Jones and Bartlett Learning, Third Edition, ISBN: 978-1-4496-7085-6), **OR:** Essentials of Fire Fighting and Fire Department Operations (Stowell, Frederick M., Murnane, Lynne, Brady Publishing, a division of Pearson Education, Sixth Edition, ISBN: 978-013-3140804), **OR:** Fire Engineering's Handbook for Fire Fighter I and Fire Fighter II (Corbett, Glenn, PennWell Corporation, First Edition, ISBN: 978-1-59370-135-2)	Various	Various
▪ Wildland Firefighting Fundamentals (Teie, Willam C, Deer Valley Press, Second Edition, ISBN: 978-1931301268)	2nd	Various
▪ IS-100 Introduction to Incident Command System, I-100, Student Manual	--	FEMA[1]
▪ IS-700 National Incident Management System, An Introduction, Student Manual	--	FEMA[2]
▪ Full structural and wildland personal protective equipment	--	--
REQUIRED INSTRUCTOR MATERIALS		
▪ Wildland Firefighting Fundamentals (Teie, Willam C, Deer Valley Press, Second Edition, ISBN: 978-1931301268)	2nd	Various

▪ Fundamentals of Fire Fighter Skills (Jones and Bartlett Learning, Third Edition, ISBN: 978-1-4496-7085-6), **OR:** Essentials of Fire Fighting and Fire Department Operations (Stowell, Frederick M., Murnane, Lynne, Brady Publishing, a division of Pearson Education, Sixth Edition, ISBN: 978-013-3140804), **OR:** Fire Engineering's Handbook for Fire Fighter I and Fire Fighter II (Corbett, Glenn, PennWell Corporation, First Edition, ISBN: 978-1-59370-135-2)	Various	Various
▪ IS-100 Introduction to Incident Command System, I-100, Instructor Manual	--	FEMA[1]
▪ IS-700 National Incident Management System, An Introduction, Instructor Manual	--	FEMA[2]
▪ Various Instructor Resources	Current	SFT

VENDORS		
FEMA[1]	Federal Emergency Management Agency	http://training.fema.gov/EMIweb/IS/is100lst.asp
FEMA[2]	Federal Emergency Management Agency	http://training.fema.gov/EMIWeb/is/is700alst.asp
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/firefighter2013.php

FIRE FIGHTER I COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Fighter I Certification Process
- Topic 1-3: General Knowledge Requirements

Unit 2: Fire Fighter Safety

- Topic 2-1: Health and Safety
- Topic 2-2: Structural Personal Protective Ensemble
- Topic 2-3: Self-Contained Breathing Apparatus
- Topic 2-4: Responding on an Apparatus
- Topic 2-5: Operating at an Emergency Scene

Unit 3: Communications

- Topic 3-1: Operating a Phone in an Non-emergency Situation
- Topic 3-2: Initiating a Response to an Emergency
- Topic 3-3: Operating Fire Department Radios

Unit 4: Fire Tools and Equipment

- Topic 4-1: Ropes and Knots
- Topic 4-2: Hand and Power Tools
- Topic 4-3: Portable Electric and Lighting Equipment
- Topic 4-4: Maintenance

Unit 5: Structural Fire Suppression

- Topic 5-1: Building Construction and Related Hazards
- Topic 5-2: Fire Behavior
- Topic 5-3: Fire Extinguishers
- Topic 5-4: Water Supply Systems
- Topic 5-5: Fire Hose
- Topic 5-6: Utility Control at Emergencies
- Topic 5-7: Ground Ladder Operations
- Topic 5-8: Forcible Entry
- Topic 5-9: Structure Fire Search and Rescue Operations
- Topic 5-10: Structural Fire Fighting Operations
- Topic 5-11: Horizontal Ventilation Operations
- Topic 5-12: Vertical Ventilation Operations
- Topic 5-13: Property Conservation
- Topic 5-14: Overhaul

Unit 6: Fire Fighter Survival

- Topic 6-1: Structural Fire Fighter Survival

Unit 7: Suppression of Fire Outside of a Structure

- Topic 7-1: Exterior Fires
- Topic 7-2: Passenger Vehicle Fires

Unit 8: Wildland Fire Suppression

- Topic 8-1: Wildland Response
- Topic 8-2: Wildland Personal Protective Equipment
- Topic 8-3: Wildland Tools and Equipment
- Topic 8-4: Wildland Fire Behavior
- Topic 8-5: Wildland Fire Safety
- Topic 8-6: Wildland Human Factors on the Fireline
- Topic 8-7: Wildland Suppression
- Topic 8-8: Reinforcing a Fireline
- Topic 8-9: Wildland Urban Interface
- Topic 8-10: Mop-up Operations
- Topic 8-11: Conducting Patrols

Unit 9: Hazardous Materials/WMD

- Topic 9-1: Recognizing Hazardous Materials/WMD
- Topic 9-2: Identifying/Analyzing Hazardous Materials/WMD Incidents
- Topic 9-3: Emergency Decontamination
- Topic 9-4: Mitigating a Hazardous Materials/WMD Incident

*****CURRICULUM DISCONTINUED DECEMBER 31, 2016*****

Fire Fighter II (2001)

Hours: 111 plus manipulative performance testing

Designed For: Probationary fire fighters

Description: This course expands upon the depth of knowledge provided to those fire service personnel certified to the Fire Fighter I level. It includes information, techniques, and methods of essential and advanced fireground tasks, rescue operations, inspection and maintenance of hand, power, and hydraulic tools, techniques for educating the public.

Prerequisites: Fire Fighter I

Certification: Fire Fighter II

Class Size: Department determination

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Various Fire Service Training Manuals (refer to Instructor Guide)		CFCA or FPP Delmar JB FIRESCOPE NWCG

REQUIRED INSTRUCTOR MATERIALS	EDITION	VENDORS
▪ Instructor Guide	2001	SFT
▪ Fire Fighter II Training Record (available on-line)	2001	SFT

VENDORS		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
Delmar	Delmar Thomson Learning (800-347-7707)	esales@thomsonlearning.com
FIRESCOPE	Firefighting Resources of California Organized for Potential	www.firescope.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
JB	Jones and Bartlett Publishers (800-832-0034 x2)	www.jbpub.com
NWCG	National Wildlife Coordinating Group (208-387-5119)	www.nwcg.gov
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

CFSTES

Course: Fire Fighter II (2013)
Hours: 120:00
Designed For: Fire Fighter I
Description: This course provides the skills and knowledge needed for the entry level professional fire fighter to perform his/her duties safely, effectively, and competently. The curriculum is based on the 2013 edition of NFPA 1001 Standard for Fire Fighter Professional Qualifications. The five overarching themes of the California State Fire Fighter II curriculum are: general knowledge germane to the profession, fire department communications, fireground operations, rescue operations, and prevention, preparedness, and maintenance.
Prerequisites: Certified Fire Fighter I
Corequisites: None
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%. Complete all mandatory skills testing.
Max. Class Size: 50
Instructor Level: Training Instructor 1A and 1B
Instructor/ Student Ratio: 1:50 (Lecture); 1:10 (Skills)
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fundamentals of Fire Fighter Skills (Includes Instructor's Toolkit DVDs) (Jones and Bartlett Learning, Third Edition, ISBN: 978-1-4496-7085-6) **OR:** Essentials of Fire Fighting and Fire Department Operations (Stowell, Frederick M., Murnane, Lynne, Brady Publishing, a division of Pearson Education, Sixth Edition, ISBN: 978-013-3140804) **OR:** Fire Engineering's Handbook for Fire Fighter I and Fire Fighter II (Includes Instructor Guide & Sample Skills Drills DVDs) (Corbett, Glenn, PennWell Corp., First Ed., ISBN: 978-1-59370-135-2)	Various	Various
▪ Full structural and wildland personal protective equipment	--	--
REQUIRED INSTRUCTOR MATERIALS		
▪ Fundamentals of Fire Fighter Skills (Includes Instructor's Toolkit DVDs) (Jones and Bartlett Learning, Third Edition, ISBN: 978-1-4496-7085-6), **OR:** Essentials of Fire Fighting and Fire Department Operations (Stowell, Frederick M., Murnane, Lynne, Brady Publishing, a division of Pearson Education, Sixth Edition, ISBN: 978-013-3140804), **OR:** Fire Engineering's Handbook for Fire Fighter I and Fire Fighter II (Includes Instructor Guide and Sample Skills Drills DVDs) (Corbett, Glenn, PennWell Corporation, First Edition, ISBN: 978-1-59370-135-2)	Various	Various
▪ Skill Sheets	Current	SFT

VENDORS		
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/firefighter2013.php

FIRE FIGHTER II COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Fighter II Certification Process
- Topic 1-3: General Knowledge Requirements

Unit 2: Fire Department Communications

- Topic 2-1: Completing Incident Reports
- Topic 2-2: Basic Company Communications

Unit 3: Fireground Operations

- Topic 3-1: Extinguishing an Ignitable Liquid Fire
- Topic 3-2: Controlling a Flammable Gas Cylinder Fire
- Topic 3-3: Coordinating an Interior Attack Line
- Topic 3-4: Protecting Evidence of Fire Cause and Origin

Unit 4: Rescue Operations

- Topic 4-1: Vehicle Extrication
- Topic 4-2: Assisting in Rescue Operations

Unit 5: Prevention, Preparedness, and Maintenance

- Topic 5-1: Performing a Fire Safety Survey at a Private Dwelling
- Topic 5-2: Presenting Fire Safety Information
- Topic 5-3: Preparing Preincident Surveys
- Topic 5-4: Maintaining Power Equipment
- Topic 5-5: Performing Annual Hose Service Test

Fire Fighter Survival (2010)

Hours: 16

Designed For: All fire service personnel

Description: This course was developed in the continuing effort to reduce the number of fire fighter injuries and fatalities that occur on an annual basis and provides a greater understanding how to avoid committing fatal errors on the fireground. Avoiding situations that could cause you to become lost, trapped, or injured is the best way to prevent tragedies at a fire scene. Topics include fire fighter survival terminology, developing a survival attitude, increasing situational awareness, and being trained in problem-solving techniques so you can become more self-reliant in an emergency. Case studies will be reviewed to outline factors common in many line-of-duty deaths (LODDs) across the nation.

Prerequisites: None

Certification: None

Class Size: Student/Instructor ratio is 10:1 (40 students maximum with four Primary Instructors)

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Instructor/Student Manual (combined document)	2010	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor/Student Manual (combined document)	2010	SFT
▪ PowerPoint Slides on CD-ROM (Optional)	2010	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE FIGHTER SURVIVAL COURSE OUTLINE

Course Objectives: To provide the student with…

- Fire fighter survival terminology.
- Knowledge of the federal government involvement to reduce fire fighter injuries and fatalities and the guidelines and laws put in place from tragic fire loss events.
- Fire fighter fatality case study recommendations to enhance fire fighter training to handle their own emergencies on the fireground.
- Techniques for developing fire fighter survival attitude and identify personal equipment that fire fighters should carry in their possession for self-preparedness measures.
- Situational awareness to prevent the fire fighter emergency and recognize critical structural fireground factors.
- Knowledge and the application of "When to call a fire fighter emergency" and emergency communications when fire fighters become lost, trapped, or disoriented inside a burning structure.
- SCBA knowledge and techniques for air awareness and SCBA air emergencies, and applying them during hands-on evolutions.

Course Content 16:00

Orientation and Administration 1:00

Developing A Survival Attitude 0:45

Preventing the Fire Fighter Emergency 0:45

The Fire Fighter Emergency 0:45

SCBA Emergencies 0:45

Fire Fighter Survival Skills 8:00

- #1: SCBA Emergency Procedure Check
- #2: Calling "Mayday"
- #3: Reading Couplings
- #4: Window Hang
- #5: Hose Slide
- #6: Emergency Ladder Escape – Hook-two/Slide-to-four Method
- #7: Entanglement Emergencies – Swim or Sweep Method
- #8: Entanglement Emergencies – SCBA Removal Method
- #9: Wall Breach
- #10: Changing Your SCBA Profile – Non-removal Method

FIRE FIGHTER SURVIVAL COURSE OUTLINE

- #11: Changing Your SCBA Profile – Low or Reduced Profile (Partial-removal Method)
- #12: Changing Your SCBA Profile – Zero or No Profile (Full-removal Method)

Fire Fighter Survival Evolutions 4:00

- #1: SCBA Confidence Course
- #2: SCBA Awareness

Fireline Safety Awareness for Hired Vendors (2011)

Hours: 8:00

Designed For: Hired vendors working with CAL FIRE or USFS on any active wildland fire, including water tender operators, heavy equipment with water operators (Skidgine), dozer operators, crew bus drivers, vehicle drivers, mechanics, fallers, swampers, and chain saw operators.

Description: This course provides an awareness of fireline safety to hired vendors who plan to engage in wildland fire suppression and other incident support activities. Topics include current safety training, relevant policy and procedures, how to recognize and mitigate risk, and maintain safe and effective practices while working under agency supervision on an incident. Upon successful completion of training, participants will receive a course completion card valid for one (1) year from date of issue.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: 5:1 student/skills evaluator ratio for fire shelter deployment skill

Training Expiration: Valid for one (1) year from date of training

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Incident Response Pocket Guide (NFES #1077) one for each student	Current	NWCG
▪ Instructor Guide	2011	SFT
▪ New Generation Practice Fire Shelters (1/5 shelter/student ratio)	Minimum of 2 large	NWCG; Online Retailers
▪ The New Generation Fire Shelter Video (NFES #2712)	2003	NWCG
▪ Wildland Personal Protective Equipment (One set as listed in Topic 13)	---	---

VENDORS		
NWCG	National Wildlife Coordinating Group (208-387-5119)	www.nwcg.gov
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRELINE SAFETY AWARENESS FOR HIRED VENDORS COURSE SYLLABUS

Course Objectives: To provide the student with…

- Information on recent wildland events and hot topics
- Information for working on a wildland fire, including parts of a vegetation fire, situational awareness, fireline hazards, incident check-in, and radio procedures
- The 10 Standard Fire Orders and 18 Watch-out Situations
- Information on using the Incident Response Pocket Guide
- Techniques on the care, maintenance, and deployment of the new generation fire shelter
- Guidelines when working with California inmate fire crew

Course Content: 8:00

- Overview And Administration 0:15
- Introduction to the Incident Response Pocket Guide 0:30
- Parts of a Vegetation Fire 0:30
- Situational Awareness/Look up-Look down/Weather 0:45
- The 10 Standard Fire Orders/LCES 0:30
- The 18 Situations that Shout Watch Out 0:30
- Fireline Hazards and Strategies 0:30
- Entrapment Avoidance 0:30
- Lessons Learned and Hot Topics 0:30
- Radio Procedures 0:30
- Working with California Inmate Fire Crews 0:30
- Incident Organization 0:30
- Wildland Personal Protective Equipment 0:30
- New Generation Fire Shelter and Deployment Skill 1:30

Large Animal Rescue Operational (2003)

Hours: 8

Designed For: Fire fighters, fire service personnel, animal control officers, and law enforcement officers

Description: Fire departments are beginning to play a vital role in large animal rescues. Moreover, since these rescues can be a hazardous activity and pose a risk of serious injury or death, the safety of rescuers must be the first priority. This course provides the knowledge and skills necessary so responders can work in "concert" with each other, guided by an understanding of horse characteristics and behavior.

Prerequisites: None

Certification: None

Class Size: 25

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	2003	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	2003	SFT
▪ PowerPoint Slides on CD-ROM (Optional)	2003	SFT
▪ Student Manual	2003	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

LARGE ANIMAL RESCUE OPERATIONAL COURSE OUTLINE

Course Objectives: To provide the student with…

- Information about large animal rescue as a technical rescue.
- Information about prey animal behavior and characteristics.
- Information and training on emergency containment of large animals.
- Information and training on scene management and large animal operations.
- Information and training on large animal rescue equipment and application.
- Information and training on horse trailers and on-road accidents.
- Information and training on rope operations and large animals.
- Information and training on hauling, lifting, and lowering large animals.
- Information and training on vertical lifting operations with large animals.
- Information and training on water rescue with large animals.

Course Content 8:00

Unit 1: Introduction to Large Animal Rescue

- Introduction and History 0:30
- Horse Characteristics and Behavior 0:30
- The Emergency Rope Halter and Lead Line 0:30
- How to Approach a Loose Horse 0:15
- How to Apply an Emergency Rope Halter 0:15

Unit 2: Operations and Equipment

- Scene Management and Operations 0:30
- Large Animal Rescue Equipment 0:30
- How to Apply a Rescue Strap, Forward Application 0:15
- How to Apply the Vertical Lift Tie 0:15
- Trailers and Trailer Operations 1:00
- Raising and Lowering Systems and Operations 0:45
- How to Apply a Rescue Strap, Rear Drag Application 0:15
- How to Assemble a Set of Tandem Prusik Loops to an Anchor Rope 0:15
- How to Assemble a Set of Parallel Prusik Loops to a Double Anchor Rope 0:15
- How to Set Up a Piggyback Haul System 0:15
- How to Operate a Piggyback Haul System 0:15
- Water Operations 0:30

Course Review and Final Exam 1:00

Low Angle Rope Rescue Operational (2007)

Hours: 24

Designed For: All fire service personnel

Description: Designed to equip the student with the techniques and methods for using rope, webbing, hardware friction devices, litters in low angle rescue situations. Areas covered include rope and related equipment, anchor systems, safety lines, stretcher lashing and rigging, mechanical advantage systems, and single-line and two-line rescue systems.

Prerequisites: None

Certification: None

Class Size: Student/Instructor ratio is 12:1 (48 student's maximum with four Primary Instructors)

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Low Angle Rope Rescue Operational Instructor and Student Manual	2007	SFT Website
REQUIRED INSTRUCTOR MATERIALS		
▪ Low Angle Rope Rescue Operational Instructor and Student Manual	2007	SFT Website

VENDORS		
SFT Website	State Fire Training	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

LOW ANGLE ROPE RESCUE OPERATIONAL COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on rope rescue equipment, rescue knots and hitches, anchor systems, system attachments and fall restraint, belay/safety line systems, load-releasing devices.
- Methods and techniques used to inspect and maintain rescue rope, webbing, and hardware.
- Methods and techniques to tie knots and package victims and rescuers.
- Methods and techniques for using rescue equipment to build lower/raise systems.
- Information on rescue scene organization and management.
- An opportunity to demonstrate and apply basic low angle rope rescue techniques.
- Optional information on litter walkouts and ladder systems used in low angle rope rescue operations.

Course Content 24:00

- Introduction 1:00
- Rope Rescue Equipment 1:00
- Rescue Knots and Hitches 1:00
- Anchor Systems 2:00
- Rescuer and Ambulatory Victim Packaging 1:00
- Types of Rescue Litters and Victim Packaging 2:00
- System Attachments and Fall Restraint 1:00
- Three Main Components of a Low Angle Rope Rescue System 2:00
- Belay/Safety Line Systems 1:00
- Descending and Ascending Techniques. 2:00
- Lower/Raise (Mechanical Advantage) Systems 3:00
- Load-releasing Methods 1:00
- Rescue Scene Organization and Management 1:00
- Litter Walkouts (Optional) 1:00
- Ladder Systems (Optional) 2:00
- Evolutions 5:00
- Evolutions (Optional) 5:00

FSTEP

Course: Open Water Rescuer – Basic (2014)
Hours: 24
Designed For: Recue\Firefighting
Description: This course provides detailed information, and the skills training required, to improve an individual's level of comfort and confidence for safely and proficiently performing contact rescues in static and surf water conditions. Safety is strongly emphasized throughout the class. Risk management is reinforced during every skill to establish your level of comfort in the water and to identify and overcome your limitations. The emphasis on risk management helps you determine if your actions meet your agencies SOPS/SOGS in the determination of a rescue being a "offensive" or "defensive" operation. Swimming, stroke technique and body positioning in the water are covered. "In water" skills for students include how to read and understand water flow, reading and understanding surf, contact rescues using rescue buoy devices and boards, dealing with combatant victims, performing self-rescues, and rescues of multiple victims both conscious and unconscious. The entire course meets the requirements of swimming contact rescue of NFPA 1670 and NFPA 1006 Chapter 11, sections 11.2, Chapter 15, sections 15.2.
Prerequisites: It is recommended that the AHJ devise or adopt a minimum swim capability standard based on the response area needs. A realistic evaluation of the rescuer's water survival skills should be conducted by the AHJ to meet this requirement. It is recommended that the AHJ use an annual swim test standard that meets or exceeds the International Association of Dive Rescue Specialists (IADRS) Annual Watermanship Test.
Certification: None
Standard: 80%
Class Size: 32 participants maximum, 8:1 student/Instructor ratio
Restrictions: This course requires appropriate fitness and ability to complete the AHJ swim standard or the recommended NFPA, IARDS Watermanship swim test.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ USLA Open Water Rescue Manual	2011	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ USLA Open Water Rescue Manual	2011	Various
▪ One Rescue Tube for every 4 students		Various
▪ One Rescue Can for every 4 students		Various
▪ One Rescue Board for every 4 students		Various

VENDORS INFORMATION	
Various	All required material can be purchased, from a variety of vendors, on the Internet.

OPEN WATER RESCUER COURSE PLAN

Day One:

Topic 1-1 Course Introduction, Instructor and Student Introduction……00:15

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, be familiar with course administration and operational requirements for successful completion.

Enabling Learning Objectives (ELO):

OPEN WATER RESCUER COURSE PLAN

1. Describe starting times and attendance requirements for successful completion of the course.
2. Describe the necessary paperwork to complete all administrative processes required for successful completion.
3. Describe the criteria for successful completion of the course.
4. Obtain and learn the student manual and its contents as it pertains to this course.

Topic 2-1 Philosophy and Duties of the Open Water Rescuer / NFPA 1006.....00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, understand the need, perception and duties of the open water rescuer and how all duties relate to NFPA 1006.

Enabling Learning Objectives (ELO):

1. Understand the physical conditioning need of an open water rescuer, routine physical training and meeting swim and skill standards annually.
2. Understand and describe why water rescue starts with prevention education.
3. Understand the perception the general public has of search and open water rescuers and our responsibility to that idea.
4. Understand how the skills and knowledge learned relate to the JPR's of NFPA 1006 Chapters 11 and 15.
5. Understand the need for contact rescues.
6. Understand the difference between an Open Water Rescuer and a Lifeguard.
7. Recognize the disadvantages of a Open water rescuer i.e. dependent on someone else's recognition, advanced stages of rescue event, no back-up resources.

Topic 3-1 Environmental Risk Assessment/ PPE.....01:00

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, be able to determine by reading the water, environmental conditions, marine life, agency SOPS/SOGS to perform an offensive or defensive rescue using the proper PPE for the conditions.

Enabling Learning Objectives (ELO):

1. Understand the forces of wind, water, temperature and current.
2. Describe these forces and their outcome when one or more are combined.
3. Develop an understanding of the way water acts around obstacles in the water.
4. Understand and relate the escalation of risks i.e. talk, reach, throw, row, wade, go & tow
5. Know their limitations in all facets of contact rescue swimming.
6. Determine the factors that can change an offensive rescue to a defensive rescue.
7. Understand the ability of additional equipment to perform a contact swimming rescue.
8. Describe the proper protective equipment required for the environmental conditions.

Topic 4-1 Victim Recognition and Assessment.....00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, be able to identify signs that may help to indicate various drowning presentations.

Enabling Learning Objectives (ELO): The student will:

1. Understand observations made of swimmers while still on dry land.
2. Understand through sight, the abilities of potential swimmers before they enter into the water.
3. Understand through behavior, the abilities of potential swimmers before they enter into the water.
4. Understand, by the conditions of the water, the threat to potential and actual swimmers.
5. Understand, by weather conditions, the threat to potential and actual swimmers.
6. Understand, by watching a person enter into the water, their comfort level with the water.
7. Understand, by watching a person's swimming abilities, their chance of success while in the water.

OPEN WATER RESCUER COURSE PLAN

Topic 5-1 Recognizing the Distressed Signs of a Swimmer.....00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, understand and describe the high risk groups that enter the water. They will be able to identify what the drowning process looks like and what is going on in the drowning persons mind as well as, describe what is going on physiologically inside the drowning person's body.

Enabling Learning Objectives (ELO): The student will:

1. Describe the high risks groups of drowning and the stimulus of the swimmer and non-swimmer
2. Describe the observation of a swimmer with their head low in the water.
3. Describe the observation of a swimmer with an up and down stroke.
4. Describe the observation of a swimmer with no leg kick.
5. Describe the observation of a swimmer allowing waves to break over them.
6. Describe the observation of a swimmer with hair in their face.
7. Describe the observation of a swimmer with glassy eyes, or a far-away stare.
8. Describe the process of secondary drowning, or second day drowning, parking lot drowning.
9. Describe the affects and differences between warm water and cold water drowning.

Topic 6-1 Components of a Swimming Rescue..... .....00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, learn the components of a swimming rescue and the importance of each component being followed and successfully completed.

Enabling Learning Objectives (ELO):

1. Identify and correctly recite the components of a contact swimming rescue.
2. Describe the reason and meaning behind the Recognize component
3. Describe the reason and meaning behind the Respond component.
4. Describe the reason and meaning behind the Contact and Control component
5. Describe the reason and meaning behind the Signal and Save component
6. Describe why the order of these components are important and why one component must be completed before moving onto the next one.

Topic 7-1 Communication and Hand Signals.....00:15

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, comprehend and understand the value of proper communication by both receiving and relaying proper terminology during water rescue operations. Student will learn and memorize the industry standard hand signals used during contact rescue swimming.

Enabling Learning Objectives (ELO):

1. Comprehend and recite the proper terminology of all the equipment used by a open water rescuer.
2. Comprehend and recite the duties of the open water rescuer and how they fall into line during a water rescue operation.
3. Describe the different options of communication a open water rescuer can use.
4. Memorize and display the industry standard (USLA) hand signals used for communication between team members on shore and in the water.
5. Explain when to use hand signals and their importance.

Topic 8-1 Conducting a Witness Interview.....00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, will describe and understand the proper procedure and questions when conducting a witness interview, the reason for the interview, and the reason for empathy and honesty

during the interview.

Enabling Learning Objectives (ELO):

1. Understand the information needed from the witness to better perform a successful rescue. Who, what, where, when, why and how many.
2. Learn the questions required to ask of the witness to obtain the needed information.
3. Describe the demeanor/empathy to have when speaking with the witness
4. Know the forms to use and how to fill out when speaking with the witness.
5. Describe the reason to express honesty to the witness during the witness interview.
6. Explain the reason to keep the witness nearby during the search part of the rescue.
7. Explain drowning support groups available to them to participate with on line.

Topic 9-1 Swimming Ability.....01:00

Terminal Learning Objective (TLO): A realistic evaluation of the rescuer's water survival skills should be conducted by the AHJ to meet this requirement annually. It is recommended that the AHJ use an annual swim test that meets or exceeds the IADRS Annual Watermanship Test. Example: Swim 91.4 m (100 yards) unassisted with any stroke, no time limit, and tread water for 10 minutes. The student shall successfully complete a show of watermanship skills that the AHJ has devised or adopted as a minimum swim capability based on their response area needs. If the AHJ has not devised a swim test, the NFPA recommended IADRS watermanship skills test will be performed. Swim test will be conducted in a measured open water course or a pool.

Enabling Learning Objectives (ELO):

1. The student will understand the start and successful completion parameters of the swim.
2. Enter the water wearing the PPE desired for warmth during the swim, no swimming aids allowed.
3. Wade or dolphin out to water deep enough to swim without touching bottom.
4. Perform the watermanship skills test as required by the AHJ or IADRS test form.
5. Upon completion of the 500 meter swim, remove yourself from the swim area and rest.
6. Remain in the general area, on shore, until all students have completed the swim.
7. Immediately inform an instructor if medical or physical problems are encountered.
8. Examine stroke technique; employ improvement points provided by instructors.

Topic 10-1 Methods of Reading and Entering the Water.....01:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, describe the characteristics of the water and the way it moves and what is causing it to move as it pertains to the needs of the open water rescuer, the importance of reading water properly and what is gained when proper reading of the water is accomplished.

Enabling Learning Objectives (ELO):

1. Read the water correctly describing what is causing the movement of the water.
2. Describe what happens when moving water comes in contact with an obstacle in the water.
3. Describe what produces waves, how their formed, how they lift and how they break and why.
4. Describe the energy that travels through water and how it affects the water.
5. Describe why wave energy moves through the water in a beach break
6. Describe why wave energy is stationary in moving water.
7. Describe what happens when moving water comes in contact with slower moving or still water.
8. Describe how water wants to maintain an equal balance and what is formed because of this physical trait.
9. Describe how water erodes away at stationary objects and deposits the erosion in a different location.
10. Describe the procedure of reading the characteristics of the water by reading the geology of the surrounding land.

11. Describe the safety hazards when entering into unfamiliar water.
12. Dolphining technique.
13. Perform the proper entry from an elevated platform.
14. Perform the proper entry from a boat

Topic 11-1 Capabilities and Limitations of a Rescue Paddle Board.....01:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, describe how to properly store the rescue paddle board for immediate rescue needs. Describe and demonstrate the proper way to lift and carry the rescue paddle board to the water and when to mount the board. Describe and demonstrate the proper stroke to use to paddle and maneuver the rescue paddle board.

Enabling Learning Objectives (ELO):

1. Describe and demonstrate the proper way to ready the rescue paddle board for rescue use.
2. Describe and demonstrate the proper way to lift and carry the rescue paddle board as you head toward the water line.
3. Describe and demonstrate the proper position of the board when entering the water and the proper depth to mount the board in the prone position to start paddling.
4. Describe and demonstrate the proper position of the board and water conditions to move from the prone position to your knees and continue paddling.
5. Describe and demonstrate the proper stroke to use to move the board in the desired direction and how to make small maneuvers of the board while traveling forward.
6. Describe and demonstrate the proper method to turn Rescue Paddle Board greater than 45 degrees.
7. Describe and demonstrate the proper way to approach the distressed swimmer in the water and the position of the board.
8. Describe and demonstrate the proper actions if the distressed swimmer attempts to attack you while performing the rescue.
9. Describe and demonstrate the proper actions if the distressed swimmer has made physical contact with you to use you as a floatation device.
10. Describe and demonstrate the proper actions for placing a conscious swimmer onto the board.
11. Describe and demonstrate the proper actions for placing an un-conscious swimmer onto the board.
12. Describe and demonstrate the proper open water rescuers position on the board to paddle the swimmer to safety.
13. Describe and demonstrate properly paddling the board in while maintaining communication and observation of the distressed swimmer.
14. Describe and demonstrate the proper way to push through a breaking wave with a distressed swimmer on the board.
15. Describe and demonstrate the proper way to remove and protect the distressed swimmer from the board while in a breaking wave.
16. Describe and demonstrate assisting the distressed swimmer into shore while watching the water conditions.
17. Describe and demonstrate the proper transfer of the distressed swimmer to EMS with a report of your actions and findings.

Day Two:

Topic 12-1 Approaching a Victim(s) / Escaping a panicked victim(s).....02:00

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, properly approach a victim and observe the victims condition. The student will demonstrate how to safely evade a panicked victim until the victim can be safely secured and re-

approached for a contact rescue.

Enabling Learning Objectives (ELO):

1. Demonstrate the proper swim to maintain visual contact with the victim(s).
2. Demonstrate the proper distance to stop from the victim to make communication and avoid attack of a panicked victim(s).
3. Demonstrate proper communication with the victim and explain how the rescue will proceed.
4. Demonstrate the proper release of a panicked victim using the submerge and push off technique.
5. Demonstrate calming the victim and actions to take to remain safe.
6. Demonstrate re-approaching the victim and perform a successful contact rescue.
7. Understand why some victims don't want to be rescued, 5150, fugitive, embarrassment.

Topic 13-1 Performing Rescues with a Rescue Tube.....02:00

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, properly ready a rescue tube for stand by and rescue use. Perform a contact rescue by properly using the rescue tube as the flotation and tether device for the victim.

Enabling Learning Objectives (ELO):

1. Describe and demonstrate properly securing the tether of the rescue tube around the rescue tube into the stand by position.
2. Describe and demonstrate properly removing the rescue tube from the stand by position placing the tether around your head and over your strong shoulder when in knee deep water.
3. Describe and demonstrate the desired head up stoke out to the distressed swimmer and properly evaluate the swimmer.
4. Describe and demonstrate your actions and perform them to the distressed swimmer as you introduce the rescue tube.
5. Inform the distressed swimmer to turn 180 degrees and properly secure the rescue tube around the distressed swimmer.
6. Describe and demonstrate the proper actions if the distressed swimmer attempts to attack you or climbs your tether while performing the rescue.
7. Describe and demonstrate the proper actions of escapes if the distressed swimmer has made physical contact with you to use you as a floatation device.
8. Describe and demonstrate swimming the distressed swimmer to safety maintaining communication and observation of the distressed swimmer.
9. Describe and demonstrate properly assisting the distressed swimmer into shore while watching the water conditions and communicating with victim.
10. Describe and demonstrate properly transferring the distressed swimmer over to EMS with a report of your actions and findings.

Topic 14-1 Performing Rescues with a Rescue Can.....02:00

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, properly ready a rescue can for stand by and rescue use. Perform a contact rescue by properly using the rescue can as the flotation and tether device.

Enabling Learning Objectives (ELO):

1. Describe and demonstrate properly securing the tether of the rescue can around the rescue can into the stand by position.
2. Describe and demonstrate properly removing the rescue can from the stand by position placing the tether around your head and over your strong shoulder when in knee deep water.
3. Describe and demonstrate the desired stoke out to the distressed swimmer and properly evaluate the swimmer.

4. Describe and demonstrate your actions and perform them to the distressed swimmer as you introduce the rescue can.
5. Inform the distressed swimmer to grip the rescue can handles or to pull the rescue can into their stomach and lay across it.
6. Describe and demonstrate the proper actions if the distressed swimmer attempts to attack you while performing the rescue.
7. Describe and demonstrate the proper actions if the distressed swimmer has made physical contact with you to use you as a floatation device.
8. Describe and demonstrate properly swimming the distressed swimmer to safety maintaining communication and observation of the distressed swimmer.
9. Describe and demonstrate properly assisting the distressed swimmer into shore while watching the water conditions.
10. Describe and demonstrate properly transferring the swimmer over to EMS with a report of your actions and findings

Topic 15-1 Performing a Subsurface Rescue 02:00

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, will demonstrate a high degree of comfort while below the surface of the water. The student will swim to a submerged victim, make contact with the victim(s) and bring the victim(s) to the surface of the water using given means available. The student will swim the victim to shore or if a rescue craft is available and is closer, to a rescue craft and assist in loading the victim(s) into/onto the craft/sled. *Sub-surface water rescue is an existence of an IDLH atmosphere defined as an atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere. [29 CFR* 1910.120]*

Enabling Learning Objectives (ELO):

1. The student will swim to the area the victim(s) was last seen.
2. The student will make visual contact of a victim a minimum of 10 feet and a maximum of 12 feet below the surface of the water. If the water is opaque a buoy can be used to make the area of the victim.
3. The student will perform a size up and determine a rescue plan.
4. The student will communicate the rescue plan with the crew of the rescue craft.
5. The student will, dive below the surface make contact with the victim.
6. Using their hands or a given device, the student will securely swim the victim to the surface.
7. The student will assure that the victims' airway is out of the water.
8. The student will swim the victim over to the rescue craft and assist in loading the victim into/onto the craft/sled.

Day Three:

Topic 16-1 Incident Command System (ICS) for Water Rescue 00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, demonstrate an understanding of the Incident Command System (ICS) and the need for the use of the ICS system during water rescue incidents. The student will start building the ICS upon dispatch and become familiar with Incident Command terminology, positions within ICS and apply this knowledge to the open water rescue emergency.

Enabling Learning Objectives (ELO):

1. Describe the difference between a division and a group.
2. Describe Unity of Command and how it benefits the water rescue operations.
3. Describe Span of Control

4. Describe Delegation of Authority
5. Describe the staff positions of the Incident Command System
6. Describe Incident Site Management
7. Recite the positions of an incident site for water rescue operations
8. Describe the resources available for a water rescue incident and why they would be called.
9. Describe the zones that can be set up for the water rescue incident and the area of each zone.
10. Describe what form 214 is, when it's used and the information needed to fill one out.

Topic 17-1 Familiarization of Operations Around Helicopters.....00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy; be familiarized with the dangers and situations of using a helicopter in a water rescue scenario.

Enabling Learning Objectives (ELO):

1. Become familiar with industry terminology of helicopter crew members when using the helicopter for water rescue operations.
2 Describe and discuss the difference between a static and a hoist line.
3. Describe the proper way to approach and leave the area of the helicopter.
4. Describe the proper way to enter and exit the helicopter and under who's permission.
5. Describe the requirements of the landing zone and how to prepare a landing zone.

Topic 18-1 Reduced Visibility Responses.....00:30

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, understand the dangers and situations of night operations, reduced visibility by fog, storms or rain, agency SOPS/SOGS, when to go or say "This is beyond your limitations/abilities."

Enabling Learning Objectives (ELO):

1. Describe the hazards when attempting night or low visibility responses.
2 Describe the limitations of the open water rescuer during night or low visibility responses.
3. Describe the hazards during storms.
4. Understand the different expenditure of energy when operating at night or low visibility.
5. Describe the different PPE required during night or low visibility responses.
6. Describe the different resources required during night or low visibility responses.
7. Describe the different communication required during night or low visibility responses.

Topic 19-1 Rescue from a Boat, Pier, Rock, Cave, Kelp Beds.....02:00

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, demonstrate their ability to read the water around obstacles in the water and why the water behaves the way it does when in contact or around the object. The student will take into account depth, current, distance, sub-surface obstacles, wave action, while setting up a safe plan to perform a contact rescue. The student will enter the water from an obstacle and successfully perform a contact rescue.

Enabling Learning Objectives (ELO):

1. The student will position themselves near to the area of the victim(s).
2. The student will attempt to make visual contact of a victim(s).
3. The student will perform a size up and determine a rescue plan.
4. The student will communicate the rescue plan with the crew if on a rescue craft.
5. The student will understand the energy of the movement of the water they will be entering into and pre-determine their movement once they enter into the water.
6. The student shall ready their flotation rescue.

7. The student shall determine to jump, slide or step and safely enter into the water.
8. The student will swim the most direct path to the victim considering the movement and current of water along with other obstacles to reach the victim(s).
9. The student shall perform a successful contact rescue.
10. The student will assure that the victims' airway is out of the water.
11. The student will swim the victim to a point of safety and assist in removing the victim(s) from the water.

Topic 20-1 Deployment and Retrieval of Open Water Rescuer to a Watercraft, Boat.....02:00

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, recognize the hazards during deployment and retrieval from watercraft. Students will gain an understanding of extended rescue capabilities and the associated limitations with the introduction of watercraft.

Enabling Learning Objectives (ELO):

1. Students will discuss the complexities of introducing a motorized method of delivery of Open water rescuer services to a rescue scenario.
2. The capabilities and limitations of each motorized method of delivery will be evaluated.
3. Each student will be exposed to the outcome of mechanical failure of the water craft after deployment has been completed.
4. Students will develop an understanding of who is responsible for their deployment, its location and timing.
5. Upon making entry the Open water rescuer will provide hand signals to the craft operator of their status i.e. Ok, assistance needed or abort mission.
6. While in the water, Open water rescuer will act as his/her own Incident Unit controller reporting to Incident Command (IC).
7. Once assessment is complete, and contact rescue is secure; Open water rescuer will communicate with craft operator for pick-up.
8. Open water rescuer will package and deliver victim(s) to the motorized craft remaining vigilant of his/her safety and the outcome of the crafts mechanical failure.
9. Open water rescuer will be the last to board the craft, ensuring the safety of victim(s) and craft crew.
10. Once back under the care and control of the craft operator, the Open water rescuer will return to be a part of the boat crew within the Incident Command structure.

Topic 21-1 Distressed Swimmer Rescue Scenario.....01:15

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, work together as a team, building on their personal and independent capabilities and limitations. Students will utilize the incident command system and delegate positions with tactical objectives to systematically actualize a plan for a successful rescue.

Enabling Learning Objectives (ELO):

1. The students will receive a scenario of a single distressed swimmer needing rescue and their immediate resources
2. The students shall agree on one student becoming the Incident Commander (IC).
3. The student as IC shall set up command assign other students to positions and delegate authority as needed.
4. The student will, through the use of radios, hand signals and speaking, communicate all actions to the IC or their designee.
5. The student will use the training and skills they have obtained over the last two days to perform the rescue of the single distressed swimmer.

6. The scenario ends when the swimmer is handed off to EMS and all students involved in the scenario have been accounted for.

Topic 22-1 Distressed Victim(s) from a Disabled Watercraft Rescue Scenario……01:15

Terminal Learning Objective (TLO): With the instruction provided in this topic the student will, with a high degree of accuracy, work together as a team, building on their personal and independent capabilities and limitations. Students will utilize the incident command system and delegate positions with tactical objectives to systematically actualize a plan for a successful rescue.

Enabling Learning Objectives (ELO):

1. Each student will evaluate the effectiveness, risks and alternatives for rescuing the passengers of a disabled watercraft.
2. Close consideration will be applied to each situation in order to protect the lives and safety of rescuers and the passengers of the watercraft.
3. Clear and simple instructions will be communicated to the passengers to don Personal Floatation Devices (PFDs)
4. Open water rescuers will account for the number of person's onboard (POB), their ages, medical conditions. The increased risk to all parties in the event abandoning ship or remaining onboard is called for will be evaluated.
5. The choice to direct passengers to abandon ship will take into account for rapidly evolving and increasing hazards to staying onboard the craft i.e. surf, currents and/or especially hazardous conditions of the boat such as fuel in the bilges, flooding, fire or any other hazard(s).
6. Having the passengers remain onboard the craft will be taken into consideration. The crafts operator will be required to turn engine(s) off and show the keys to the Open water rescuer prior to the swimmer approaching.
7. Students will demonstrate their understanding of options for attaching to the disabled watercraft.
8. Students will demonstrated their ability to tow and maneuver the disabled craft under swimming power alone as a solo swimmer.
9. Students will demonstrate their understanding of the option to introduce other Open water rescuers, work in cooperation and in tandem to tow and maneuver the disabled watercraft
10. Open water rescuer(s) will work in tandem to reduce vessels rate of drift, hold station, or pull the boat to a safe location under their own power.
11. The student will perform all skills using the utmost safety while performing the skills.
12. The scenario ends when all distressed rescued victims are handed off to EMS and all students involved in the scenario have been accounted for.

Texts and References

U.S.L.A. Open Water Rescue Manual
U.S. Coast Guard Helicopter Rescue Swimmer Manual
U.S. Navy Seal Rescue Swimmer Manual
NFPA 1670 Standards on Operation and Training for Technical Rescue Incidents
NFPA 1006 Standard for Technical Rescuer Professional Qualifications

Personal Watercraft Rescue Operations (1996)

Hours: 16

Designed For: Water rescue personnel

Description: This course provides the skills needed to operate a personal watercraft (PWC) and perform rescue in river and flood situations. Safety, course philosophy, and PWC terminology are covered. "In water" experiences for students include how to read dynamics flow for safety travel, perform self-rescue and victim-rescue operations, along with executing pre/post-inspections of the PWC.

Prerequisites: River and Flood Water Rescue

Certification: None

Class Size: 25

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	1996	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

PERSONAL WATERCRAFT RESCUE OPERATIONS COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the codes and regulations that impact personal watercraft operations.
- A thorough knowledge of personal watercraft operations.
- A strong working knowledge of personal watercraft operations in both static and dynamic water.
- Information on performing inspections and maintaining personal watercraft.
- An opportunity to apply their knowledge through demonstrations.

Course Content 16:00

- Personal Watercraft Safety Training 1:30
- Philosophy of Personal Watercraft Use 0:30
- Orientation and Terminology of Personal Watercraft 1:00
- Performing Pre-operation Inspections 0:30
- Launching Personal Watercraft 0:30
- Rescuer Mounts for Personal Watercraft 0:30
- Methods for Reading Rivers 1:00
- Traveling in Dynamic Water 1:00
- Hovering and Ferrying a Personal Watercraft 0:30
- Righting a Tipped Personal Watercraft 1:00
- Serving a Flooded Personal Watercraft 1:00
- Shoring a Personal Watercraft 0:30
- Performing a Rope Crossing 1:00
- Performing a Victim Pickup with a Rescue Litter 1:00
- Performing a Victim Pickoff 1:00
- Trailering a personal Watercraft 0:30
- Placing a Personal Watercraft Back In-service 1:00
- Performing Daily and Weekly Checks on Personal Watercraft 0:30
- Course Review and Final Exam 1:30

RIC Operations (2011)

Hours: 24

Designed For: All fire service personnel

Description: The Rapid Intervention Crew Operations course trains fire fighters to rescue a downed fire fighter in an immediately dangerous to life and health environment in the continuing effort to reduce the number of fire fighter injuries and deaths that occur regularly. Students train using evolutions and scenarios based off tragedies suffered by fellow fire fighters from departments across the country. Students receive information on how to locate and use these LODD studies as training and prevention tools throughout their careers.

The course focuses on the three phases of a RIC operation: 1) predeployment, 2) deployment, and 3) rescue. During the class, you will also gain a greater understanding of RIC operations terminology and the RIC mindset.

Prerequisites: Fire Fighter I training, Fire Fighter Survival or IAFF course *Fire Ground Survival*.

Certification: None

Class Size: Student/Instructor ratio is 10:1 (40 student's maximum, with four Primary Instructors)

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Instructor/Student Manual (combined document)	2011	SFT Website
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor/Student Manual (combined document)	2011	SFT Website

VENDORS		
SFT Website	State Fire Training	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

RIC OPERATIONS COURSE OUTLINE

Course Objectives: To provide the student with…

- Rapid intervention crew terminology.
- Fire fighter fatality case study recommendations to enhance rapid intervention crew training to handle fire fighter emergencies on the fireground.
- Techniques and training in developing the "RIC mindset" and steps taken before a RIC deployment occurs (predeployment) to increase the chances of a successful outcome.
- Techniques and training in conducting a RIC deployment, including search operations and thermal imaging.
- Techniques and training in conducting rescue operations once a downed fire fighter is located, including assessment and extrication from the structure.

Course Content 24:00
- Orientation And Administration. 1:00
- The RIC Mindset 0:45
- Predeployment Concepts 0:45
- Deployment Concepts 0:45
- Rescue Operations 0:45
- RIC Operation Skills 12:00
  - #1: Size-up and Assemble A Mobile Tool Cache
  - #2: Downed Fire Fighter Assessment
  - #3: RIC Air Delivery
  - #4: Search Line Deployment
  - #5: Dragging A Downed Fire Fighter, One Rescuer
  - #6: Dragging A Downed Fire Fighter
  - #7: Packaging And Moving A Downed Fire Fighter Utilizing Rescue Loops
  - #8: Packaging And Moving A Downed Fire Fighter Utilizing A Drag Sled
  - #9: Packaging And Moving A Downed Fire Fighter Utilizing A Mast
  - #10: Dragging A Downed Fire Fighter Down Stairs
  - #11: Dragging A Downed Fire Fighter Up Stairs
  - #12: Feet-first Ladder Carry
  - #13: Seated Ladder Carry With SCBA Removal
  - #14: Head-first Ladder Carry

RIC OPERATIONS COURSE OUTLINE

- #15: Rescue From A Confined Area
- #16: Rescuing A Conscious and Uninjured Fire Fighter Through The Floor – Hose Method
- #17: Rescuing A Conscious And Injured Fire Fighter Through the Floor – Hose Method
- #18: Rescuing An Unconscious Fire Fighter Through the Floor – Hose Method
- #19: Rescuing A Downed Fire Fighter Through The Floor – Rope Method

RIC Operations Evolutions..... 8:00

- #1: Pittsburg Evolution
- #2: Tarver Evolution
- #3 and #4: Scenario-based Site-specific Evolutions

Rescue Boat Operations (1998)

Hours: 24

Designed For: Water rescue personnel

Description: This course provides the skills needed to operate a rescue boat and perform rescue in river and flood situations. Safety, course philosophy, and terminology are covered. "In water" experiences for students include how to read dynamics flow for safety travel, perform self-rescue and victim- rescue operations, along with executing pre/post-inspections of the PWC.

Prerequisites: River and Flood Water Rescue

Certification: None

Class Size: 25

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	1998	SF
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	1998	SFT

VENDOR		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

RESCUE BOAT OPERATIONS COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the codes and regulations that impact rescue boat operations.
- A strong working knowledge of rescue boat operations in both static and dynamic water.
- Information on performing inspections and maintaining rescue boats.
- An opportunity to apply their knowledge through demonstrations.

Course Content 24:00

- Rescue Boat Safety Training. 1:00
- Philosophy of Rescue Boat Use..... 0:30
- Rescue Boat Types, Uses, and Limitation..... 1:00
- Recognized Standard Set-up for an IRB..... 1:00
- Methods of Reading Rivers..... 1:00
- Traveling in Dynamic Water..... 1:30
- Operational Terminology..... 1:00
- IRB Crew Positions..... 0:30
- How To Perform Daily and Weekly Checks..... 0:30
- Boat Care and Maintenance..... 0:30
- Performing a Pre-operation Inspections..... 0:30
- Launching a Rescue Boat..... 0:30
- How to Hover and Ferry a Rescue Boat..... 1:00
- Shoring A Rescue Boat..... 0:30
- How to Trailer A Rescue Boat..... 1:00
- IRB High Speed Turns..... 2:00
- How to Execute a Rescuer Drop-off..... 2:00
- Performing A Victim Pickup..... 2:00
- Performing A Victim Pickoff..... 2:00
- Righting an Overturned IRB..... 1:00
- Paddle Operations..... 1:00
- Rescue Boat Operations During Floods..... 1:00
- Boat Wraps and Pins..... 1:00

Course: River and Flood Water Rescue (1996)
Hours: 16
Designed For: All fire service personnel
Description: This course is intended for the training of fire service personnel in water rescue techniques. Topics include swift water rescue, submerged vehicles, drowning, use of engine/truck company equipment for water rescue, use of rafts and boats, and underwater search and recovery.

Prerequisites: None
Certification: None
Class Size: 40
Student/ Instructor Ratio 10:1 (Skills Proficiency)
Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

RIVER AND FLOOD WATER RESCUE COURSE OUTLINE

Course Objectives: To provide the student with…
- Basic rescue techniques to water rescue problems.
- Information on the special hazards and problems in swift water rescue.
- Basic skills to make safe moving water rescues.
- Skills in rope handling, rigging, and repelling.

Course Content 16:00
- Introduction 0:30
- Cold Water Emersion, Hypothermia, and Mammalian Reflex 0:30
- White Water Regarding Body Surfing, Boat Handling, and Shallow Water Crossing 1:00
- Introduction to Vertical Rescue 1:00
- How to Tie Rescue Knots 1:00
- Field Exercises 3:00
- Water Briefing 0:30
- Field Exercises With the Tyrollian Line 2:00
- Field Exercises With Water Crossing Techniques 2:00
- Waterside Briefing 0:30
- Rescue Simulations 4:00

Tire Fire Prevention and Suppression (2004)

Hours: 6

Designed For: All fire service personnel

Description: This course provides information on the growing problem of scrap tire storage throughout California. Topics include: History, chemical compounds, sources of ignition, codes and regulations, ground rubber operations and hazards, pre-incident planning of outdoor tire storage yards, tire fire behavior, and hazardous materials response.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual (included in Instructor Media Kit)	2004	SFT
REQUIRED INSTRUCTOR MATERIALS	**EDITION**	**VENDORS**
▪ Media Kit: Instructor Guide, Student Manual, Multimedia Presentation, and Program Notes	2004	SFT

VENDOR		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

OUTLINE

Course Objectives: To provide the student with…

- Information on the background and history of the scrap tire industry.
- Information on chemical compounds used in tire manufacturing.
- Information on traditional sources of ignition.
- Information on the current codes and regulations.
- Information on ground rubber operations and hazards.
- Pre-incident planning of outdoor tire storage yards.
- Information on tire fire behavior.
- Information on hazardous materials response.

Course Content 6:00
- Introduction: Defining the Problem 0:30
- Tire History 0:30
- Tire Markets 0:30
- Tire Storage 0:30
- Sources of Ignition 0:30
- Codes and Regulations 1:00
- Ground Rubber 0:30
- Preplanning 0:30
- Fire Behavior 0:30
- Hazardous Materials Response 1:00

Trench Rescue

Hours: 16

Designed For: All fire service personnel

Description: This course is designed to train fire service personnel in hands-on application of the techniques necessary to safely affect a rescue from an excavation or trenching cave-in. Topics include: Critical considerations while responding to trenching emergencies, evaluation of cave-in scenes, basic life support procedures and temporary protection for victims, specialized tool usage, shoring techniques, and below grade rescue safety procedures.

Prerequisites: None

Certification: None

Class Size: 40

Student/Instructor: Ratio: 10:1 (Skills Proficiency)

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

TRENCH RESCUE COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the common causes for trench collapse.
- Information on the personal safety equipment used for trench rescues.
- Techniques for using scene safety equipment.
- The procedures for placing edge protection to make the lip of the trench safe.
- The procedures for sheeting and shoring.
- Different methods for removing victims from a trench.
- Techniques for safely removing tools and equipment from a trench.
- An opportunity to demonstrate and apply trench rescue techniques.

Course Content 16:00

Introduction
The Law
Confined Space Regulations
Soil Analysis
Types of Trenches and Collapse Patterns
Emergency Rescue Guide
Making the Trench Safe

Hazardous Materials First Responder Awareness Level (2007)

Hours: 8

Designed For: Fire prevention personnel, fire inspectors, and fire department support staff

Description: Hazardous Materials notification and reporting requirements for Fire Department personnel who may witness or discover a Hazardous Materials Leak, spill, or discharge. Meets the requirements of CFR 29 1910.120 and CCR Title 8.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

HAZARDOUS MATERIALS FIRST RESPONDER AWARENESS LEVEL COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on hazardous materials relevant to the risks and negative outcomes hazardous materials events/incidents present.
- Methods and procedures to identify a hazardous materials event/incident.
- With methods and procedures to isolate a hazardous materials event/incident and make proper modifications to mitigate an event/incident.
- Information on safety and hazard assessment techniques when dealing with a hazardous materials event/incident.
- A tabletop exercise to apply the information provided in this course.

Course Content 8:00

- Course Orientation and Administration 1:00
- Introduction to Hazardous Materials at the Awareness Level 1:00
- Hazardous Materials Recognition 1:00
- Safety, Isolation, and Notifications 1:00
- Basic Command, IDHA, and Action Plans 1:00
- Tabletop Exercise 1:00
- Course Review and Final Exam 2:00

Hazardous Materials First Responder Operational Level (2007)

Hours: 24

Designed For: Fire department personnel who may respond to releases or potential releases of hazardous materials as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release.

Description: Defensive tactics to contain the release from a safe distance, keep it from spreading, and prevent exposures without trying to stop the release. Meets and exceeds the requirements of CFR 29 1910.120 and CCR Title 8.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	1994	CSTI

REQUIRED INSTRUCTOR MATERIALS	EDITION	VENDORS
▪ Instructor Guide	1994	CSTI
▪ Student Manual	1994	CSTI

VENDORS		
CSTI	California Specialized Training Institute (800-549-3535)	CSTIinfo@oes.ca.gov

HAZARDOUS MATERIALS FIRST RESPONDER OPERATIONAL LEVEL COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on recognition of hazardous materials incidents, safety precautions, making proper notifications, and legal aspects.
- Information on scene management and the utilization of IDHA and action plans.
- Methods and procedures on the proper use of hazardous materials protective equipment, containment, protective actions, decon, disposal and documentation.
- Information on preplanning for hazardous materials incidents.
- An exercise that uses the information, methods, and procedures contained in this course.

Course Content 24:00

- Course Orientation and Administration 1:30
- Introduction to Hazardous Materials at the Operational Level 1:00
- Hazardous Materials Recognition and Safety 1:00
- Safety, Isolation, and Notifications 1:00
- Command/Introduction to Scene Management 1:00
- IDHA and Action Plans 2:00
- Protective Equipment and First Responder Limits 1:00
- Containment and Protective Actions 2:00
- Decon Disposal and Documentation 1:00
- Agency Coordination 1:00
- Pre-Event and Event-Specific Planning 1:00
- Toxicology 1:00
- The Safe and Competent Hazardous Materials Process 1:00
- First Responder Operational Exercise 4:00
- Hazardous Materials Legal Aspects and the Media 1:00
- Putting It All Together. 1:00
- Course Review and Final Exam 2:30

Hazardous Materials First Responder Operational, Decontamination (2007)

Hours: 8

Designed For: Hazardous material emergency response personnel

Description: This course will provide the haz mat emergency responder with the processes used in decontamination and methods to limit the spread of hazardous materials contamination in a safe and competent manner.

Prerequisites: OSFM recognized/approved Hazardous Materials First Responder Operational Level

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	1993	CSTI

REQUIRED INSTRUCTOR MATERIALS	EDITION	VENDORS
▪ Instructor Guide	1993	CSTI
▪ Student Manual	1993	CSTI

VENDORS		
CSTI	California Specialized Training Institute (800-549-3535)	CSTIinfo@oes.ca.gov

HAZARDOUS MATERIALS FIRST RESPONDER OPERATIONAL, DECONTAMINATION COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the processes used in decontamination.
- Skills to safely limit the spread of contamination.

Course Content 8:00

- Course Overview 0:15
- Introduction to Decontamination 0:45
- Decontamination Leader 0:30
- Contamination Reduction Corridor 0:30
- Special Decontamination Procedures 0:30
- Personal Protective Equipment 0:45
- Medical Monitoring of the Decon Team 0:15
- EMS Transportation of Decontaminated Patients 0:30
- Medical Monitoring Exercise 0:30
- Level B Exercise 0:45
- Contamination Reduction Corridor Exercise 0:45
- Level a Decontamination Exercise 0:30
- Decontamination of Contaminated Victims Exercise 0:15
- Decontamination of the Decon Team Exercise 0:15
- Course Review and Final Exam 1:00

Course: Advanced All-Hazards Incident Management –AAIM (2012)
Hours: 48
Designed For: National Incident Management System (NIMS) Type-I Command and General Staff
Description: All-hazards complex incident management training for Type-I incident management teams (IMT)
Prerequisites: IS-208.a - State Disaster Management, IS-240.a Leadership & Influence, IS-241.a Decision Making and Problem Solving, IS-242.a Effective Communication, IS-244.a Developing and Managing Volunteers, IS-288 The Role of Voluntary Agencies in Emergency Management, IS-520 Introduction to Continuity of Operations Planning for Pandemic Influenzas, IS-650.a Building Partnerships with Tribal Governments, IS-700.a NIMS An Introduction, IS-701.a NIMS Multiagency Coordination System (MACS) Course, IS-702.a National Incident Management System (NIMS) Public Information Systems, IS-703.a NIMS Resource Management Course, IS-706 NIMS Intrastate Mutual Aid - An Introduction, IS-775, EOC Management and Operations, IS-800.B National Response Framework, An Introduction, IS-860.a National Infrastructure Protection Plan (NIPP), and Qualified in a Command or General Staff position at the Type 3 complexity level
Certification: Not Applicable
Standard: 80%
Class Size: Up to 48 participants (based on incident management teams of 10 to 12 people per team)
Restrictions: Venue shall have adequate classrooms, breakout rooms, and information technology capabilities according to course logistics plan to be approved in advance of the class by SFT staff.

REQUIRED STUDENT MATERIALS	EDITION	PUBLISHER
ICS Field Operations Guide		FIRESCOPE
AAIM Participant Guide		AAIM
NIMS Pre-course Materials		FEMA
NIMS Forms		FEMA
REQUIRED INSTRUCTOR MATERIALS		
Instructor Guide		AAIM
Coaches Guide		AAIM
Simulation Coordination Logistics Sheet		AAIM

VENDORS CONTACT INFORMATION	
AAIM	http://californiafiretraining.org
FIRESCOPE	Firefighting Resources of California Organized for Potential Emergencies www.firescope.org
NIMS	http://training.fema.gov/EMIWeb/IS/ICSResource/index.htm

ADVANCED ALL-HAZARDS INCIDENT MANAGEMENT COURSE PLAN

Unit 1 Course Introduction 1:00

Scope Statement: The Scope of this Unit is to provide a description and overview of the course, define TLO, define ELO and provide students with the course expectations and evaluation process. During this Unit, students will be introduced to the instructors, provide an introduction of themselves, and learn the layout of the classroom and facilities.

Terminal Learning Objective (TLO): At the conclusion of this Unit the students will be able to describe the course outline, course expectations and evaluation process.

Enabling Learning Objectives (ELO):

At the conclusion of this Unit the students will be able to:

1. Identify facility and classroom requirements
   - Start and end times
   - Breaks
   - Restrooms
   - Food locations
   - Smoking locations

- Emergency procedures
- Electronic devices
- Special needs and accommodations
- Other requirements

2. Review the course outline
   - Course objectives
     - Calendar of events
     - Course requirements
     - Student evaluation process (80% is required on the summative test)
     - Assignments and activities
     - Required student resources
3. Class participation requirements
   - Describe course conduct
   - Identify Instructors and coaches
   - Identify team members
   - Describe TLO
   - Describe ELO

Discussion Questions:

1. What are formative and summative tests?
2. What score do you need to successfully complete the final exam?

Activities:

1. To be determined by the instructor

Unit 2 Agencies, Entities and Plans 4:00

Scope Statement: The scope of this Unit will be to provide the student with information regarding: Agencies, entities, and plans that may need to be accessed and engaged in order to mitigate incidents. Agencies and entities may bring jurisdictional considerations, and resources which could be required to deal with incidents.

Terminal Learning Objective (TLO): At the conclusion of this Unit, students will be able to describe role, responsibilities and authorities of agencies, entities and plans.

Enabling Learning Objectives (ELO): For each government agency, governmental entities, the military, non-governmental organizations, corporate entities and organizations participants will:

- Describe the jurisdictional and statutory authorities and responsibilities
- Describe the process(s) for activating and/or accessing
- Describe their capabilities, limitations and potential resources
- Describe any special needs or considerations
- Understand any rules, responsibilities or relationships
- Describe Local, State and National plans
- Describe transition or short term recovery plans

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 3 Command and Coordination 2:30

Scope Statement: Students will be provided information on the interactions that occur with IMT's and various levels of coordinating and directing organizations which may be instituted at a higher level command authority. These organizations may occur at the Federal, State, and Local levels of government.

Terminal Learning Objective (TLO): At the conclusion of this Unit, students will be able to describe methods which facilitate the interactions between IMT's and other governmental coordinating/directing organizations including but not limited to a Multi-Agency Coordinating System, Area Command, Theatre

(NIMO) Teams, Joint Information Centers(JIC), Emergency Operations Centers (EOC).

Enabling Learning Objectives (ELO): At the conclusion of this Unit, students will be able to:

- Identify and describe the functions of coordinating and managing entities.
- Describe Operation Centers
- Describe Joint Information Centers
- Describe IMT Interactions with the groups listed above
- Describe challenges that can occur when coordinating agencies
- Describe strategies to overcome challenges when coordinating agencies

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 4 Scenario - Transportation 8:00

Scope Statement: This will be a five to six hour exercise that will allow the students to utilize lessons learned in previous Units. The IMT's will develop a plan and provide solutions to a transportation scenario provided by the instructional staff. The intent of this scenario is to utilize tools that have been provided to demonstrate an ability to coordinate with agencies at the Federal, State, and Local levels.

Terminal Learning Objective (TLO): At the conclusion of this unit, the students will be able to develop a plan and provide solutions to a transportation scenario provided by the instructional staff.

Enabling Learning Objectives (ELO): At the conclusion of this unit, the students will be able to utilize tools that have been provided to demonstrate an ability to coordinate with agencies at the Federal, State, and Local levels.

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 5 Safe Management of Incident Resources 2:30

Scope Statement: The scope of this Unit includes tools and information that IMT's can utilize to identify and mitigate safety issues. Students will learn to address long duration assignments, tragedy and high stress situations. The team will be provided information to form a basis for making sound decisions to conduct safe incident operations.

Terminal Learning Objective (TLO): At the conclusion of this Unit students will be able to describe and implement effective mitigating strategies for safety issues and stressful situations.

Enabling Learning Objectives (ELO): At the conclusion of this unit, the students will be able to identify IMT and individual responsibilities and accountability for safely managing incident personnel.

- Describe key considerations to manage risk.
- Describe key considerations to manage stressful situations.
- Describe key considerations when assessing risk vs. gain.
- Describe resources available to use when injury or tragedy occurs.

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 6 Incident management Team Challenges 3:00

Scope Statement: In this Unit, teams will be provided with information to identify challenges that can impact a team and potential strategies to address them.

Terminal Learning Objective (TLO): At the conclusion of this Unit, students will be able to describe methods to identify and concepts to effectively address team challenges that may require enhanced skills to affect a successful outcome.

Enabling Learning Objectives (ELO): At the conclusion of this unit, the students will be able to identify and describe incident organization considerations such as:

- Intelligence function (sharing sensitive info) within NIMS
- Conventional and Unconventional team roles
- Incident Management Support vs. Operational Control
- Multiple IMT's assigned to the same incident work
- Describe the challenges of transitioning
- Mission clarity / Delegation of Authority
- Transitions between different agency teams
- Agencies unfamiliar with formal transitions
- Describe methods to effectively integrate agencies/entities
- Describe concepts for maintaining relationships and resolving conflicts of: Jurisdictional authority, IMT, Agency Representative, staff, agency administrator, line officer and assisting cooperation agencies
- Describe the need to consider long term planning
- Describe concepts of resource utilization
- Describe the potential impacts of dignitary visits

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 7 Incident Management Assistance Team (IMAT) 2:00

Scope Statement: IMAT's are quite often called upon to assist and instruct other agencies in the management of incidents under their jurisdiction. This presents unique challenges in that IMAT's are placed in an advisory capacity with no delegated authority.

Terminal Learning Objective (TLO): At the conclusion of this unit, students will be able to utilize the lessons taught to effectively integrate into, advise and serve a requesting agency as an Incident Management Assistance Team (IMAT).

Enabling Learning Objectives (ELO): At the conclusion of this unit, the students will be able to:

- Identify issues related to an IMT not being in charge
- Describe issues related to a requesting agency's limited Incident Command System (ICS) knowledge
- Describe agency's resistance to establishing ICS
- Describe when to utilize subject matter expert(s)
- Recognize when host agency has inadequate personnel to staff organization

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 8 Scenario- Public Health 8:00

Scope Statement: This will be a five to six hour exercise that will allow the students to utilize lessons learned in previous Units. They are expected to interact with simulated served agency personnel during a public health pandemic. The team is not from the requesting entity.

Terminal Learning Objective (TLO): At the conclusion of this unit, the students will be able to identify the challenge with working as an IMAT and providing solutions.

Enabling Learning Objectives (ELO): At the conclusion of this unit, the students will be able to understand their role as an IMAT.

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 9 Volunteers and Donations 2:30

Scope Statement: Students will be provided information on the importance of volunteer organizations, their response to incidents and how best to utilize volunteers to support personnel and the public. Additional Information addresses the spontaneous volunteer, people who just show up and want to help.
Terminal Learning Objective (TLO): At the conclusion of this unit, students will be able to describe the elements necessary to effectively utilize volunteers and volunteer organizations.
Enabling Learning Objective (ELO): At the conclusion of this unit, students will be able to:

- Identify volunteer and volunteer organization resources and capabilities
- Primary entities-i.e. Red Cross, Salvation Army, etc.
- Secondary entities-Volunteer Organizations Active in Disasters (VOAD), California Animal response Emergency Care System (CARES), etc.

Discussion Questions:
1. To be determined by the instructor
Activities:
1. To be determined by the instructor

Unit10 External influences 3:00

Scope Statement: This Unit will provide the students with information which will help them to identify and manage external influences. These influences may include issues related to: governmental agencies, special interest groups, industrial groups, political issues, the media, and situations where agencies and entities have conflicting primary, secondary, and/or parallel responsibilities.
Terminal Learning Objective (TLO): At the conclusion of this Unit, students will be able to identify potential external influences which could influence the management of an incident and provide strategies to help resolve adverse situations.
Enabling Learning Objectives (ELO): At the conclusion of this unit, the students will be able to:

- Identify potential external administrative, political, environmental and legal influences that must be recognized and understood to successfully manage an incident.
- Describe which team position has primary responsibility for taking action.

Discussion Questions:
1. To be determined by the instructor
Activities:
1. To be determined by the instructor

Unit 11 Fiscal Considerations 1:00

Scope Statement: The students will be provided information which will assist them in identifying and finding potential solutions to complex or unfamiliar financial issues such as: Who has the authority to encumber funds? Who establishes the accounting systems to track and project costs? What is the fiscal effect of emergency declarations?
Terminal Learning Objective (TLO): At the conclusion of this unit, the students will be able to identify and solve complex fiscal issues involving several agencies and scenarios including cost share, apportionment and accountability
Enabling Learning Objectives (ELO): At the conclusion of this unit, students will be able to:

- Establishing complete and accurate fiscal documentation
- Establish clearly defined fiscal responsibilities for all involved entities
- Agency relationships sharing jurisdictional/statutory responsibilities
- Cost effective management practices that support Agency Administrator(s) objectives
- Authority to encumber funds
- Contracting Authorities
- Establishment of financial record keeping system for auditing purposes
- Reimbursement of funds
- Cost sharing
- Financial considerations involving emergency declarations

Discussion Questions:
1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 12 Final Written Exam 2:30

Scope Statement: The summative exam covers all the AAIM material presented up to this point.

Terminal Learning Objective (TLO): At the conclusion of the exam, participants will have a good idea of how much material they have learned and retained.

Enabling Learning Objectives (ELO): At the conclusion of this unit, successful students will be able to recognize their level of understanding of the course materials and role on an IMT at the Type-1 complexity.

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

Unit 13 Scenario- Natural Disaster 7:00

Scope Statement: This will be a five to six hour exercise which will provide the students with a natural disaster scenario that incorporates all lessons from throughout the course. This will be the final scenario and will be weighted more heavily in the grading.

Discussion Questions:

1. To be determined by the instructor

Activities:

1. Instructions for completing the exam will be reviewed by the instructor to the participants.

Unit 14 Course Critique / Team Evaluations / Closeout 1:00

Discussion Questions:

1. To be determined by the instructor

Activities:

1. To be determined by the instructor

FSTEP

Course: I-200: Basic ICS (2006)
Hours: 12-16
Designed For: First line supervisors, single resource bosses, lead dispatchers, field supervisors, company officers, and entry level positions (trainees) on incident management teams
Description: This course introduces students to the principles of the Incident Command System (ICS) associated with incident-related performance. Topics include leadership and management, delegation of authority and management by objectives, functional areas and positions, briefings, organizational flexibility, transitions and transfers.
Prerequisites: None.
Certification: Not Applicable
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	PUBLISHER
Student Manual	FEMA
REQUIRED INSTRUCTOR MATERIALS	
Instructor Guide	FEMA

VENDORS CONTACT INFORMATION	
FEMA	http://training.fema.gov/is/coursematerials.aspx?code=IS-200.b

I-200 COURSE PLAN

Course information can be found on the link above

FSTEP

Course: I-300: Intermediate ICS (2007)
Hours: 18-24
Designed For: Type 3 Incident Management Team (IMT) candidates, incident middle management (Unit Leaders, Division/Group Supervisors, and Strike Team Leaders), elected officials, line officers, lead dispatchers, Multi-agency Coordination (MAC) members, director heads (public works director, fire chief, sheriff), emergency managers, agency representatives
Description: This course provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on expanding or Type 3 incidents. Topics include: ICS fundamentals review, incident/event assessment and agency guidance in establishing incident objectives, Unified Command, incident resource management, planning process, demobilization, transfer of command, and close out.
Prerequisites: I-200 Certification
Certification: Not Applicable
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	PUBLISHER
Various – (instructor provided)	--
REQUIRED INSTRUCTOR MATERIALS	
Various	FEMA/SFT

VENDORS CONTACT INFORMATION	
FEMA	Federal Emergency Management Agency http://training.fema.gov/allhazards/
SFT	Contact the Instructor Registrar for password to FEMA website

I-300 COURSE PLAN

Course information can be found on the link above

FSTEP

Course: I-400: Advanced ICS (2006)
Hours: 16
Designed For: Senior personnel expected to perform in a management capacity in an area command/complex incident environment
Description: This course directs the student towards an operational understanding of large single-agency and complex multi-agency/multi-jurisdictional incident responses. Topics include fundamentals review for command and general staff, major and/or complex incident/event management, area command, and multi-agency coordination.
Prerequisites: I-300 Certification
Certification: Not Applicable
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	PUBLISHER
Various – (instructor provided)	--
REQUIRED INSTRUCTOR MATERIALS	
Various	FEMA/SFT

VENDORS CONTACT INFORMATION		
FEMA	Federal Emergency Management Agency	http://training.fema.gov/allhazards/
SFT	Contact the Instructor Registrar for password to FEMA website	

I-400 COURSE PLAN

Course information can be found on the link above

S-130: Fire Fighter Training (2003)

Hours: 30-35½
Designed For: Entry-level firefighters.
Description: This course is designed to provide entry-level fire fighters skills. Many of the units are set up so they can be taught in either the classroom or the field; field time is encouraged. A version of L-180, Human Factors on the Fireline, has been included as part of this course.
Prerequisites: S-190
Certification: None
Class Size: 40
Restrictions: None

S-131: Fire Fighter Type 1 Training (2004)

Hours: 8
Designed For: Fire Fighter Type 1 (FFT1)
Description: This course meets the training needs of the Fire Fighter Type 1 (FFT1) and is interactive in nature. Topics include fireline reference materials, communications, and tactical decision-making.
Prerequisites: Qualified as a Fire Fighter Type 2 (FFT2)
Certification: None
Class Size: 40
Restrictions: None

S-190: Introduction to Wildland Fire Behavior (2006)

Hours: 6-8
Designed For: Entry-level fire fighters
Description: This course provides instruction in the primary factors affecting the start and spread of wildfire and recognition of potentially hazardous situations. S-190 is typically taught in conjunction with or prior to Basic Fire Fighter Training, S-130. It is designed to meet the fire behavior training needs of a Fire Fighter Type 2 (FFT2) on an incident as outlined in the PMS 310-1, Wildland Fire Qualification System Guide and the position task book developed for the position.
Prerequisites: None
Certification: None
Class Size: 40
Restrictions: None

S-200: Initial Attack Incident Commander (2007)

Hours: 16
Designed For: Personnel desiring to be qualified as an (ICT4)
Description: This course is designed to meet the training needs of the Incident Commander Type 4. The six units cover: foundation skills, intelligence gathering and documentation, size-up, developing a plan of action, post-fire activities, evaluating incident objectives, and managing the incident. Evaluation of the student is by unit tests and performance based evaluations.
Prerequisites: Qualified as a Single Resource Boss
Certification: None
Class Size: 40
Restrictions: None

S-203: Introduction to Incident Information (2008)

Hours: 30
Designed For: Personnel desiring to be qualified as Public Information Officer (PIOF)
Description: Receive the skills and knowledge needed to serve as a public information officer. Topics include establishing/maintaining an incident information operation, communicating with internal/external audiences, working with the media, handling special situations, and long-term planning/strategy.
Prerequisites: None
Certification: None
Class Size: 40
Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

	S-212: Wildland Fire Chainsaws (2004)
Hours:	24-36
Designed For:	Individuals desiring to be qualified as Fire Fighter Type 1 (FFT1), Incident Commander Type 5 (ICT5) or Felling Boss (FELB)
Description:	This course introduces the function, maintenance and use of internal combustion engine powered chain saws, and their tactical wildland fire application. Field exercises support entry-level training for fire fighters with little or no previous experience in operating a chain saw, providing hands-on cutting experience in surroundings similar to fireline situations.
Prerequisites:	Qualified as a Fire Fighter Type 2 (FFT2)
Certification:	None
Class Size:	Ratio: 10:1 (Skills Proficiency)
Restrictions:	This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

S-215: Fire Operations in the Wildland/Urban Interface (2003)

Hours: 28-32

Designed For: **Wildland Fire Agencies:** Required for Initial Attack Incident Commander Type 4 (ICT4) and Strike Team Leader (tractor/plow, dozer, engine, or crew).
Structural Fire Departments: Engine operators, chief officers, and company officers responsible for structure protection in suburban/urban interface areas that may be threatened by wildland fire.

Description: Designed to assist structure and wildland fire fighters who will be making tactical decisions when confronting wildland fire that threatens life, property, and improvements, in the wildland/urban interface. Topics include: interface awareness, size-up, initial strategy and incident action plan, structure triage, structure protection tactics, incident action plan assessment and update, follow-up and public relations, and fire fighter safety in the interface. If the optional exercises at the end of the tactics unit are used or a field exercise is included additional course time is needed. Instructors are encouraged to extend the course to 32 hours and add a field exercise covering size-up, structure triage, tactics, and any other local area training as appropriate.

Prerequisites: Wildland Fire Agencies: Qualified as a Fire Fighter Type 1 (FFT1)
Structural Fire Departments: I-100, L-180, S-130, S-131, S-190

Certification: None

Class Size: 40

Restrictions: None

S-230: Crew Boss – Single Resource (2004)

Hours: 24

Designed For: Personnel desiring to be qualified as an Engine Boss (ENGB)

Description: Training for the single resource boss position from initial dispatch through demobilization to the home unit. Topics include operational leadership, preparation and mobilization, assignment preparation, risk management, entrapment avoidance, safety and tactics, offline duties, demobilization, and post incident responsibilities.

Prerequisites: S-290 and qualified as a Fire Fighter Type 1 (FFT1)

Certification: None

Class Size: 40

Restrictions: None

S-231: Engine Boss (2004)

Hours: 12-16

Designed For: Personnel desiring to be qualified as an Engine Boss (ENGB)

Description: Designed to produce student proficiency in the performance of the duties associated with ENGB. Topics include engine and crew capabilities and limitations, information sources, fire size-up considerations, tactics, and wildland/urban interface.

Prerequisites: S-230 and qualified as a Fire Fighter Type 1 (FFT1)

Certification: None

Class Size: 40

Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-234 Ignition Operations (2009)

Hours: 16

Designed For: Personnel desiring to be qualified as Firing Boss (FIRB)

Description: This course introduces the roles and responsibilities of a Firing Boss (FIRB), common firing devices, and general firing operations and techniques. Although comprehensive in nature, the coursework is not a substitute for the dynamic fire environment. The course provides students with important information concerning general tasks required to be successful. Any opportunity to show students a small-prescribed burn or demonstrate how devices operate in the field will promote transferring these new skills to the job. Due to the wide variety and capabilities of sponsors presenting this course, the field exercise portion of the class is not defined. Therefore, the cadre and sponsoring unit are responsible for planning field exercises and demonstrations in accordance with their capabilities.

Prerequisites: S-290

Certification: None

Class Size: Ratio: 10:1 (Skills Proficiency)

Restrictions: This course requires a site with adequate materials and equipment to deliver the training according to the course outline.

S-244: Field Observer (2007)

Hours: 20

Designed For: Personnel desiring to be qualified as a Field Observer (FOBS) and/or Fire Effects Monitor (FEMO)

Description: This course provides the student with the skills necessary to perform as a field observer (FOBS) and/or a fire effects monitor (FEMO). Topics include roles and responsibilities of the FOBS and FEMO; how to make observations and document those observations; how to produce hand drawn and GPS field maps; and how to navigate using a compass and GPS. The navigation unit has 4½ hours of field exercises and the final field exercise is 8 hours.

Prerequisites: Successful completion of the precourse work
Ability to use a GPS receiver
S-290
FOBS: Qualified as a Single Resource Boss
FEMO: Qualified as a Fire Fighter Type 2 (FFT2)

Certification: None

Class Size: 40

Restrictions: None

S-245: Display Processor (2007)

Hours: 8

Designed For: Personnel desiring to be qualified as a Display Processor (DPRO)

Description: This course provides students with the skills necessary to perform as a Display Processor (DPRO). Topics include general roles and responsibilities and how to assist the situation unit leader with producing incident maps, inputs for the Incident Status Summary (ICS-209) and other incident products. The final exam is 3 hours.

Prerequisites: Successful completion of the precourse work

Certification: None

Class Size: 40

Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-270: Basic Air Operations (2003)

Hours: 16
Designed For: Single Resource Boss, Incident Commander Type 4 (ICT4), and Support Dispatcher (EDSD)
Description: This course covers aircraft types and capabilities, aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. Note: the regulations, procedures, and policies addressed in this course are primarily those governing federal agency and ICS operations. State, county, or other political subdivisions using this course will need to consult their agency having jurisdiction with respect to regulations, procedures, and policies.
Prerequisites: None
Certification: None
Class Size: 40
Restrictions: None

S-290: Intermediate Wildland Fire Behavior (2007)

Hours: 32
Designed For: Personnel desiring to be qualified as any Single Resource Boss or Fire Effects Monitor (FEMO)
Description: This is a classroom-based skills course designed to prepare the prospective fireline supervisor to undertake safe and effective fire management operations. It is the second course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Fire environment differences are discussed as necessary; instructor should stress local conditions.
Prerequisites: S-190
Certification: None
Class Size: 40
Restrictions: None

S-300: Extended Attack Incident Commander (2008)

Hours: 16
Designed For: Personnel desiring to be qualified as an Incident Commander Type 3 (ICT3)
Description: The focus is on leadership and command as they relate to the ICT3 position and presented in participative lecture format with multiple tactical decision games for students to practice new knowledge. The seven instructional units cover: foundation skills, situational awareness, command and control, managing the incident, transitional activities, post-fire activities, and final simulation. There is also an optional staff ride activity (Unit 8) if instructors choose to include it.
Prerequisites: Successful completion of the precourse work
Qualified as an Incident Commander Type 4 (ICT4) and Task Force Leader (TFLD)
or
Qualified as an Incident Commander Type 4 (ICT4), Strike Team Leader (TFLD), and any two Single Resource Boss positions – one must be Crew (CRWB) or Engine (ENGB)
Certification: None
Class Size: 40
Restrictions: None

S-330: Task Force/Strike Team Leader (2005)

Hours: 24
Designed For: Personnel desiring to be qualified as a Task Force Leader (TFLD) or any Strike Team Leader (STPL, STDZ, STEN, or STCR)
Description: Designed to meet the training requirements outlined in the Wildland Fire Qualification System Guide and the Position Task Books (PTB) developed for the positions of Task Force Leader and Strike Team Leader and specific to wildland fire suppression. If students are expected to perform in some other risk area, exercises and examples appropriate to the expected risk should be added.
Prerequisites: Successful completion of the precourse work
Qualified as any Single Resource Boss
Certification: None
Class Size: 40
Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-336: Tactical Decision Making in Wildland Fire (2004)

Hours: 24-32
Designed For: Experienced Single Resource Bosses and Initial Attack Incident Commanders
Description: Designed to meet training requirements in the Operations Section of the ICS and is specific to wildland fire suppression. This course prepares experienced Single Resource Bosses and Initial Attack Incident Commanders in the tactics necessary at the Strike Team/Task Force Leader level. It is also valuable for Operations Supervisors qualified at higher management levels who have not received training in wildfire suppression tactics.
Prerequisites: Qualified as a Single Resource Boss ***or*** Initial Attack Incident Commander Type 4 (ICT4)
Certification: None
Class Size: 40
Restrictions: None

S-339: Division/Group Supervisor (2006)

Hours: 20
Designed For: Personnel desiring to be qualified as a Division/Group Supervisor (DIVS)
Description: Prepares students to perform in the role of Division/Group Supervisor and provides instruction in support of the specific tasks of the DIVS. Topics include division/group management, organizational interaction, division operations, all-hazard operations, and tactical decision games (optional). There is a final examination in this course.
Prerequisites: I-200, I-300
Qualified as a Task Force Leader (TFLD) ***or*** Incident Commander Type 3 (ICT3) ***or*** Incident Commander Type 4 (ICT4) and in any two Strike Team Leader positions – one must be STCR or STEN
Certification: None
Class Size: 40
Restrictions: None

S-346: Situation Unit Leader (2008)

Hours: 18-24
Designed For: Personnel desiring to be qualified as Situation Unit Leader (SITL).
Description: The course starts with how to activate, setup, organize, manage, and demobilize a situation unit. It then addresses the products (maps, ICS-209, and other reports) the unit produces, as well as the technology needed to produce the products.
Prerequisites: Successful completion of the precourse work
Qualified as any Strike Team Leader ***or*** Incident Commander Type 4 (ICT4)
Certification: None
Class Size: 40
Restrictions: None

S-349: Resources Unit Leader/Demobilization Unit Leader (2008)

Hours: 28-32
Designed For: Personnel desiring to be qualified as a Resources Unit Leader (RESL) and/or Demobilization Unit Leader (DMOB)
Description: Training begins with a discussion on unit activation and management. Topics include RESL responsibilities related to resource status systems, planning process, and resource products/outputs and DMOB responsibilities for developing and implementing the demobilization plan
Prerequisites: Successful completion of the precourse work and test
Basic knowledge of current automated resource status system, such as I-Suite
Qualified as a Status/Check-in Recorder (SCKN)
Certification: None
Class Size: 40
Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-355: Ground Support Unit Leader (2000)

Hours: 16
Designed For: Personnel desiring to be qualified as a Ground Support Unit Leader (GSUL)
Description: Managing the transportation plan, maintenance, and related services at an incident. Topics include gathering assignment information; organizing, staffing, and laying out the unit; field inspection of equipment; operation and coordination with other units, and demobilization.
Prerequisites: Qualified as an Equipment Manager (EQPM)
Certification: None
Class Size: 40
Restrictions: None

S-356: Supply Unit Leader (2001)

Hours: 16
Designed For: Personnel desiring to be qualified as a Supply Unit Leader (SPUL)
Description: Training on the duties of a Supply Unit Leader and managing the incident supply unit.
Prerequisites: Qualified as an Ordering Manager (ORDM)
Qualified as a Receiving/Distribution Manager (RCDM)
Certification: None
Class Size: 40
Restrictions: None

S-358: Communications Unit Leader (2008)

Hours: 24
Designed For: Personnel desiring to be qualified as a Communications Unit Leader (COML)
Description: This course is designed to provide skills and knowledge needed to perform in the role of Communications Unit Leader. Topics include mobilization, establishing the communications unit, communications system design and ordering, communications system installation and maintenance, communications equipment assignment and accountability, incident communications center, internal and external coordination, demobilization, and current communications issues and technology.
Prerequisites: Qualified as an Incident Communications Technician (COMT)
Qualified as an Incident Communications Center Manager (INCM)
Certification: None
Class Size: 40
Restrictions: None

S-359: Medical Unit Leader (2000)

Hours: 20
Designed For: Personnel desiring to be qualified as a Medical Unit Leader (MEDL)
Description: This course is designed to provide the skills and knowledge needed to perform in the role of Medical Unit Leader. Topics include gathering information, organizing the medical unit, supervising the unit, evaluation, documentation, and demobilization.
Prerequisites: Prior or current certification as an Emergency Medical Technician or equivalent
Certification: None
Class Size: 40
Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-360: Finance/Administration Unit Leader (2001)

Hours: 32
Designed For: Personnel desiring to be qualified as a Procurement (PROC), Cost (COST), Time (TIME), and/or Compensation/Claims (COMP) Unit Leader
Description: Designed to provide the prerequisite knowledge and skills necessary to perform the tasks of Finance/Administration Unit Leader.
Prerequisites: Qualified as Personnel Time Recorder (PTRC) for Time Unit Leader (TIME
Qualified as Equipment Time Recorder (EQTR) and meet agency procurement authority requirements for procurement unit leader (PROC)
Qualified as Compensation-For-Injury Specialist (INJR) and Claims Specialist (CLMS) for Compensation/Claims Unit Leader (COMP)
Have agency related cost estimation and analysis experience for Cost Unit Leader (COST)
Certification: None
Class Size: 40
Restrictions: None

S-390: Introduction to Wildland Fire Behavior Calculations (2006)

Hours: 32
Designed For: Personnel desiring to become qualified as Division/Group Supervisor (DIVS), Prescribed Fire Burn Boss Type 2 (RXB2), Incident Commander Type 3 (ICT3), or in a position requiring this knowledge
Description: Designed to introduce fire behavior calculations by manual methods, using nomograms and the Fire Behavior Handbook Appendix B. the student gains an understanding of the determinants of fire behavior though studying inputs (weather, slope, fuels, and fuel moisture). The student also learns how to interpret fire behavior outputs, documentation processes, and fire behavior briefing components.
Prerequisites: S-290 and qualified as a Single Resource Boss
Certification: None
Class Size: 40
Restrictions: None

S-400: Incident Commander (2002)

Hours: 24
Designed For: Personnel desiring to be qualified as an Incident Commander Type 2 (ICT2)
Description: Topics include team administration, communication, information/intelligence processing, agency administrator and IC responsibilities, transfer of command, and demobilization. The course provides exercises to assist the student in acquiring the knowledge to learn these skills. An optional "lessons learned" unit allows the addition of geographic area specific information, but the course time frame must be increased accordingly.
Prerequisites: Qualified as an Incident Commander Type 3 (ICT3)
Qualified as one of the General Staff Section Chiefs at the Type 2 level
Certification: None
Class Size: 40
Restrictions: None

S-403: Information Officer (2001)

Hours: 28-32
Designed For: Personnel desiring to be qualified as Public Information Officer Type 2 (PIO2)
Description: This course meets the training requirements for a Public Information Officer Type 2. Topics include information organization and assignment, developing a communications strategy, information operations, creating a safe environment, effective media relations, incident within an incident, community relations analysis, documentation, demobilization, and transitioning. Students must pass a final exam.
Prerequisites: S-190
Certification: None
Class Size: 40
Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-404: Safety Officer (2002)

Hours:	24
Designed For:	Personnel desiring to be qualified as a Safety Officer
Description:	Designed to meet the training needs of the Safety Officer position in the incident command system. Topics include safety officer effectiveness, analysis techniques, safety messages, briefings and reports, and high hazard operations.
Prerequisites:	None
Certification:	None
Class Size:	40
Restrictions:	None

S-420: Command and General Staff (2002)

Hours:	36
Designed For:	Personnel desiring to be qualified as an Incident Commander Type 2 (ICT2) or Command Or General Staff positions
Description:	Designed to prepare the student to function effectively in the position of a Type 2 Incident Commander, Command, or General Staff. The focus is on the application of previously acquired knowledge and skills. Students will participate in two types of groups (teams and similar position) during exercises that include a simulation of the mobilization, management, and demobilization phases of a rapidly accelerating Type 2 wildfire that has potential to become a Type 1 incident.
Prerequisites:	None required Suggested completion of all prerequisite experience and course work to be qualified as an Incident Commander Type 2 (ICT2) or any Command/General Staff position
Certification:	None
Class Size:	40
Restrictions:	None

S-430: Operations Section Chief (2006)

Hours:	24
Designed For:	Personnel desiring to be qualified as an Operations Section Chief Type 2 (OSC2)
Description:	Designed to meet the training needs of the Operations Section Chief Type 2. This course is interactive in nature and contains several exercises designed to facilitate group and classroom discussion.
Prerequisites:	Qualified as a Division/Group Supervisor (DIVS)
Certification:	None
Class Size:	40
Restrictions:	None

S-440: Planning Section Chief (2001)

Hours:	20
Designed For:	Personnel desiring to be qualified as a Planning Section Chief Type 2 (PSC2)
Description:	Designed to meet a portion of the training needs of the Planning Section Chief Type 2. Topics include information gathering, strategies, meetings and briefings, incident action plans (IAP), interactions, forms, documents, supplies, demobilization, and an optional technology section. In the final exercise, the students observe a simulated planning meeting and use the information derived to find errors in an IAP. Students must pass the unit tests and the final exercise to successfully complete the course.
Prerequisites:	Successful completion of the precourse work Qualified as a Situation Unit Leader (SITL) Qualified as a Resources Unit Leader (RESL)
Certification:	None
Class Size:	40
Restrictions:	None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-445: Incident Training Specialist (2009)

Hours: 14-18
Designed For: Personnel desiring to be qualified as Training Specialist (TNSP) and should be based on technical competence in the ICS, availability to participate on incidents, and displayed interest in improving training
Description: Designated to train personnel to perform the duties of a Training Specialist. Duties include coordinating incident training opportunities and activities, ensuring the quality of training assignments, and completing documentation of the incident training.
Prerequisites: None
Certification: None
Class Size: 40
Restrictions: None

S-450: Logistics Section Chief (2002)

Hours: 16
Designed For: Personnel desiring to be qualified as a Logistics Section Chief Type 2 (LSC2)
Description: Designed to meet the national core needs of the Logistics Section Chief Type 2. Topics include arriving properly an incident, gathering information to access the assignment, beginning initial planning activities, determining that facilities, services, and materials are provided for the incident, planning, staffing, and managing the Logistics Section, coordinating with other sections, and implementing the demobilization plan.
Prerequisites: Qualified as a Facilities Unit Leader (FACL)
Qualified as a Ground Support Unit Leader (GSUL)
or
Qualified as a Facilities Unit Leader (FACL)
Qualified as a Supply Unit Leader (SUPL)
Certification: None
Class Size: 40
Restrictions: None

S-460: Finance/Administration Section Chief (2001)

Hours: 24
Designed For: Personnel desiring to be qualified as a Finance/Administration Section Chief Type 2 (FSC2)
Description: Designed to meet a portion of the training needs in the finance section organization. Topics include predispatch and response, organization and operation of the finance function, and demobilization.
Prerequisites: Qualified as a Time Unit Leader (TIME)
Qualified as a Procurement Unit Leader (PROC) ***or*** Cost Unit Leader (COST)
Certification: None
Class Size: 40
Restrictions: None

S-490: Advanced Wildland Fire Behavior Calculations (2008)

Hours: 40
Designed For: Personnel desiring to be qualified as a Fire Behavior Analyst (FBAN) or Long Term Fire Analyst (LTAN)
Description: This course is the fourth in a series designed to develop fire behavior and prediction knowledge and skills and prepares the student for S-590, Advanced Fire Behavior Interpretation. Examples and exercises are divided between wildfire and prescribed fire applications. The student learns to project fire perimeter growth based on weather predictions and knowledge of fuels and topography, using a variety of scenarios.
Prerequisites: S-390 and proficiency using non-automated fire behavior processors and the latest computerized fire modeling system
Certification: None
Class Size: 40
Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

S-491: Intermediate National Fire Danger Rating System (2003)

Hours: 32

Designed For: Dispatchers and others charged with editing and inputting weather information into WIMS used for NFDRS calculations, fire management staff who apply NFDRS outputs to decision making, and Fire Behavior Specialists who incorporate NFDRS products into assessments and projections

Description: The course develops the knowledge and skill to operate, maintain, and manage the NFDRS at the local unit. Course lecture and exercises support practical and technical application of the intellectually complex subject matter. The course requires a computer classroom with internet access to present.

Prerequisites: S-290
Successful completion of the prequalifying course work
Intermediate skills with the current Windows™ operating system
Possess a valid Weather Information Management System (WIMS) logon identification

Certification: None

Class Size: 40

Restrictions: None

VENDOR		
NWCG	National Wildlife Coordinating Group	http://www.nwcg.gov/pms/pubs/catalog.htm

COURSE INFORMATION AND REQUIRED MATERIALS
May 2015

FSTEP

Course: Terrorism Liaison Officer - Basic (2013)
Hours: 8
Designed For: Firefighters, Fire Investigators, Fire Inspectors, and Fire Dispatchers
Description: To educate the basic entry level Terrorism Liaison Officer with the policies and procedures of the Fusion Center which they will be working with in their Area of Responsibility. This training essential for fire service personnel working with multiple discipline stakeholders who share information with the California Fusion Centers.
Prerequisites: None
Certification: None
Class Size: 50
Restrictions: Public Safety Personnel only not intended for General Public.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ TLO Basic Student Manual (distributed in class by the instructor)	First Edition	Fusion Center
REQUIRED INSTRUCTOR MATERIALS		
▪ TLO Instructor Guide (distributed by the Fusion Center to approved instructors)	First Edition	Fusion Center

VENDORS	
Fusion Center	https://ncric.org

TERRORISM LIAISON OFFICER–BASIC COURSE PLAN

Module 1 – Overview and Introduction..... 1:00

Scope Statement: Participants are provided an overview of the course and a brief history of the national and statewide TLO concept. The module also introduces key, foundational concepts and sets the stage for instruction in subsequent modules.
Terminal Learning Objective (TLO): Participants will be able to state the course purpose and explain the importance of understanding, developing/enhancing counterterrorism intelligence and operational strategies.
Enabling Learning Objectives (ELO): At the conclusion of this module, participants will be able to summarize the following:
1. TLO Mission
2. Course Objectives
3. Core Concepts
Instructional Strategy: Lecture and participant discussion.
Assessment Strategy: Instructor assessment of learner participation using two-way discussions.
Practical Exercise Statement: Pre-test administration and review of answers.

Module 2 – The Role of the TLO.....1:00

Scope Statement: Participants will be given a brief history and evolution of fusion centers and their intended functionality. Participants will be introduced to the history and development of the TLO Program in California, and the role of the TLO in support of the California State Threat Assessment System (STAS). The participants will be introduced to their unique Regional Threat Assessment Center and their individual capabilities-LECC, JRIC, OCIAC, NCRIC, CCIC Specifically, instruction addresses TLO information sharing; terrorism/all-crimes information collection; internal agency training; public and private sector outreach; and TLO recruitment. Instruction addresses TLO role in identifying crime trends; officer safety issues; and indicators and warning signs of potential terrorist activities. During this module, participants also receive instruction on safeguarding restricted information and will complete non-Disclosure agreement.
Terminal Learning Objective (TLO): Participants will be able to state the role of the TLO in supporting the STAS and will be able to identify the unique capabilities and policies of their specific Regional Threat Assessment Center.

TERRORISM LIAISON OFFICER–BASIC COURSE PLAN (cont'd)

Enabling Learning Objectives (ELO): At the conclusion of this module, participants will be able to:
1. Explain the reason and functionality of fusion centers
2. Describe the responsibilities of California STAS and the regionally specific RTAC
3. Explain the fusion center's "all threats", "all crimes", and "all hazards concept"
4. Describe the roles and expectations for the TLO partnerships that currently exist with the regionally-specific RTAC
5. Describe the 8 Indicators of Terrorism

Instructional Strategy: Lecture and participant discussion.
Assessment Strategy: Instructor assessment of learner participation using two-way discussions.

Module 3 – TLO and Fusion.....2:00

Scope Statement: This module addresses the TLO role within a post September 11, 2001 domestic intelligence system and how the information provided by TLO into the fusion center is used to facilitate the initiation of investigations and/or the direct interdiction of criminal activities and terrorism threats. Participants are introduced to the distinctions between investigations versus intelligence and their diverse purposes. Instruction also familiarizes participants with the organization and structure of the U.S. Intelligence Community and its relationship with local, county, state stakeholders. Participants will receive instruction on legal issues and privacy policies such as 28CFR, ensuring that the student understands that criminal intelligence systems and operations conform to the privacy and constitutional rights of individuals.
Terminal Learning Objective (TLO): Participants will understand the national domestic intelligence system and how TLO information contributes to the larger effort.
Enabling Learning Objectives (ELO): At the conclusion of this module, participants will be able to describe the following characteristics of the U.S. domestic intelligence system:
1. The distinction between fusion and intelligence
2. The intelligence cycle and understand planning, collection, processing, collation, analysis, dissemination and reevaluation of information
3. Tactical, operational and strategic intelligence
4. The organizational structure of the National Intelligence Community and its relationship with local, county, tribal and state law enforcement and other stakeholders.
5. 28 Code of Federal Regulations, Part 23 (28CFR) and explain the necessity of conforming with constitutional rights of individuals

Instructional Strategy: Lecture, participant activity, participant discussion, and feedback presentation.
Assessment Strategy: Instructor assessment of learner participation using two-way discussions and feedback presentations.
Practical Exercise Statement: Not Applicable

Module 4 - Overview of Terrorism.....3:50

Scope Statement: Instruction and participant discussions in this 3.5-hour module review the defining characteristics of terrorism. The module addresses terrorism across the spectrum of transnational, international, domestic, and single-issue categories. Instruction defines each terrorism category and further addresses their various distinctions and characteristics. Additionally, instruction addresses exemplar groups practicing these various types of terrorism and explores each group's history, capabilities and intentions, MO, and future outlook as a threat to national interests. Terrorism groups and movements addressed in this introductory overview include: transnational terrorist organizations such as al Qaeda and its affiliates in Yemen, North Africa, Somalia, and Indonesia; international terrorist organizations such as Hezbollah and HAMAS; domestic terrorist phenomena such as homegrown violent jihadist, white supremacist, and anti-government groups; and single-issue movements such as animal rights, environmental extremists, and anti-abortionist.
Terminal Learning Objective (TLO): Participants will have an enhanced understanding of the capabilities, intentions, tactics, techniques, and procedures of specified transnational, international, domestic, and single-issue terrorist groups.
Enabling Learning Objectives (ELO): At the conclusion of this course, participants will be able to:
1. Define the principle characteristics of terrorism.

TERRORISM LIAISON OFFICER–BASIC COURSE PLAN (cont'd)

2. Define and describe the four categories of terrorism discussed in the module.
3. Describe the history, objectives, and method of operations of:
   - al Qaeda
   - Hezbollah
   - HAMAS.
4. Describe the origins and ideology of the modern white supremacy movement.
5. Characterize the Sovereign Citizen extremists' threat to law enforcement.
6. Characterize the nature of the threat presented by single-issue terrorists groups and movements such as animal rights, environmental extremists, and anti-abortionists.

Instructional Strategy: Lecture and participant discussion.
Assessment Strategy: Instructor assessment of learner participation using two-way discussions.
Practical Exercise Statement: Not Applicable.

Module 5 - Course Conclusion 0:30

Scope Statement: Instruction and participant discussion in this 30-minute module reviews relevant lessons and clarifies core concepts as requested by participants or as identified by instructors.
Terminal Learning Objective (TLO): Participants will be able to perform duties of a basic TLO.
Enabling Learning Objectives (ELO): At the conclusion of this module, participants will be able to summarize the following:
1. TLO Role and Responsibilities
2. National Fusion Center Intelligence Process and how TLO participates in it

Instructional Strategy: Lecture and participant discussion.
Assessment Strategy: Instructor assessment of learner participation using two-way discussions.
Practical Exercise Statement: Not Applicable.

COURSE INFORMATION AND REQUIRED MATERIALS
May 2015

S-330: Task Force/Strike Team Leader All Risk (2002)

Hours: 28

Designed For: Individuals qualifying within the ICS as a Task Force or Strike Team Leader

Description: This course contains generic curriculum regarding tactics and strategy as it relates to the management of a strike team or task force and meets the S-330 training requirements of the California Incident Command Certification System (CICCS) for the position of Strike Team/Task Force Leader-All Risk.

Prerequisites: I-300, S-290

Certification: N/A

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fireline Handbook (NFES 0065)	Current	NWCG
▪ ICS 420-1 Field Operations Guide (Pocket)	Current	FIRESCOPE
▪ Student Manual	2002	FIRESCOPE or SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Fireline Handbook (NFES 0065)	Current	NWCG
▪ ICS 420-1 Field Operations Guide (Pocket)	Current	FIRESCOPE
▪ Instructor Guide	2002	FIRESCOPE or SFT
▪ PowerPoint Slides on CD-ROM (Optional)	2002	SFT
▪ Student Manual	2002	FIRESCOPE or SFT

VENDORS		
FIRESCOPE	FF Resources of CA Organized for Potential Emergencies.	www.firescope.org
NWCG	National Wildlife Coordinating Group	www.nwcg.gov/pms/pubs/catalog.htm
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

S-330 ALL RISK COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on Strike Team/Task Forces of various resources.
- Information on implementing Strike Team/Task Force Leader responsibilities prior to and during mobilization and demobilization.
- Information on implementing Strike Team/Task Force Leader responsibilities during incident activities.
- Information on identifying the hazards and risks throughout Strike Team/Task Forces deployment and describe how to mitigate them.
- Information on recognizing, planning for, and describing how to implement appropriate tactics in various all risk incident situations with various resources organized into strike teams or task forces.

Course Content: 32:00

Unit 1: Course Introduction

- Course Introduction 1:30

Unit 2: Predeployment Responsibilities

- Concept of Strike Team/Task Force Leader 1:00
- Resource Typing Standards 1:30
- ICS Resource Designation System 1:30
- Pre-Dispatch Preparation 0:30

Unit 3: Incident Responsibilities

- Administration 1:00
- Supervision 1:15
- Coordination With Other ICS Functional Areas 0:45
- Strike Team/Task Force Response 2:00
- Assignment/Status 2:00
- Demobilization 0:45

Unit 4: Tactics and Safety

- Risk Management 2:00

S-330 ALL RISK COURSE OUTLINE

- Entrapment Avoidance....2:30
- Tactical Considerations – Wildland/Urban Interface....2:30
- Tactical Considerations – Urban Search and Rescue....1:00
- Tactical Considerations – Swiftwater/Flood....0:30
- Tactical Considerations – Multi-casualty....0:30
- Independent Action vs. Freelancing....0:30

Precourse Assignment Review....0:45
Written Quizzes....1:30
Local/Agency Specific Issues and Material....3:30
Final Written Exam....1:00
Final Scenario....2:00

COURSE INFORMATION AND REQUIRED MATERIALS
May 2015

S-339: Division/Group Supervisor All Risk (2000)

Hours: 24
Designed For: Individuals qualifying within the ICS as a Division/Group Supervisor
Description: This course teaches the student the management skills necessary to fill the position of Division/Group Supervisor within the framework of ICS. It does not teach tactics or strategy and refers to these only to enhance the particular management technique associated with them.
Prerequisites: I-300, S-330
Certification: None
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Aids to Determining Fuel Models for Estimating Fire Behavior (NFES 1574)		NWCG
▪ Fireline Handbook (NFES 0065)		NWCG
▪ Hazardous Materials Operational System Description (ICS-HM-120-1)		FIRESCOPE
▪ ICS 420-1 Field Operations Guide (Pocket)		FIRESCOPE
▪ ICS for Fire Department Structure Fire Operations		FIRESCOPE
▪ Incident Response Pocket Guide (NFES 1077)		NWCG
▪ Student Manual	1999	FIRESCOPE or SFT
▪ Urban Search and Rescue – Operational System Description (ICS-US&R–120-1)		FIRESCOPE
REQUIRED INSTRUCTOR MATERIALS		
▪ Aids to Determining Fuel Models for Estimating Fire Behavior (NFES 1574)		NWCG
▪ Fireline Handbook (NFES 0065)		NWCG
▪ Hazardous Materials Operational System Description (ICS-HM-120-1)		FIRESCOPE
▪ ICS 420-1 Field Operations Guide (Pocket)		FIRESCOPE
▪ ICS for Fire Department Structure Fire Operations		FIRESCOPE
▪ Incident Response Pocket Guide (NFES 1077)		NWCG
▪ Instructor Guide	1999	FIRESCOPE or SFT
▪ Student Manual	1999	FIRESCOPE or SFT
▪ Urban Search and Rescue – Operational System Description (ICS-US&R–120-1)		FIRESCOPE

VENDORS		
FIRESCOPE	FF Resources of CA Organized for Potential Emergencies.	www.firescope.org
NWCG	National Wildlife Coordinating Group	www.nwcg.gov/pms/pubs/catalog.htm
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

S-339 ALL RISK COURSE OUTLINE

Course Objectives: To provide the student with…

- The concepts of a division and group as it relates to the position of Division/Group Supervisor.
- The opportunity to apply Division/Group fundamentals to ALL RISK incidents.
- The opportunity to prepare for and participate in planning meetings to develop and implement division/group objectives.
- The opportunity to participate in information gathering practices.
- The opportunity to participate in an operational period briefing and a division/group briefing.
- Information on managing and adjusting the operations organization.
- An understanding of why and when tactics may need to be adjusted.
- Information on the role of the Division/Group Supervisor in risk assessment and safety management.
- The opportunity to demonstrate how to successfully coordinate internal and external relations.

Course Content: 24:00

Unit 1: Course Introduction

Course Introduction 0:30
Concept of Division/Group 1:30
Pre-course Work Assignment 5:00

Unit 2: Planning

Information Gathering 2:00
Briefing.....2:00

S-339 ALL RISK COURSE OUTLINE

COURSE INFORMATION AND REQUIRED MATERIALS
May 2015

S-430: Operations Section Chief All Risk (2000)

Hours: 32

Designed For: Individuals qualifying within the ICS as an Operations Section Chief

Description: This course presents the command, management, and supervision concepts necessary to function as an Operations Section Chief. Topics include command principles, organization of the operations section, briefings, developing the operations portion of the incident action plan, and supervising operations.

Prerequisites: I-400, S-330, S-339

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ ICS 420-1 Field Operations Guide (Pocket)		FIRESCOPE
▪ Student Manual	1999	FIRESCOPE or SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ ICS 420-1 Field Operations Guide (Pocket)		FIRESCOPE
▪ Instructor Guide	1999	FIRESCOPE or SFT
▪ Student Manual	1999	FIRESCOPE or SFT

VENDORS		
FIRESCOPE	FF Resources of California Organized for Potential Emergencies	www.firescope.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

S-430 ALL RISK COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on assessing incident assignments and determining immediate needs and actions.
- Information to prepare for strategy meetings and planning meetings to develop the Incident Action Plan.
- Information to assist in the development, approval, and implementation of the Demobilization Plan.
- The opportunity to participate in an Operational Period Briefing.
- Information to manage and adjust the operations organization.
- An understanding of why and when tactics may need to be adjusted.
- Information on the role of the OSC in risk assessment and safety management.
- The opportunity to demonstrate how to successfully coordinate internal and external relations.

Course Content: 32:00

Unit 1: Course Introduction

- Course Introduction..... 1:00
- Operations Section Chief Role & Responsibilities 2:00

Unit 2: Planning

- Management Cycle 2:00
- Information Gathering 1:00
- Strategy and Planning..... 2:00
- Structure Protection Planning 2:00
- Demobilization Planning 0:30

Unit 3: Supervision

- Supervision and Communication 2:00
- Managing and Adjusting the Operations 2:00
- Risk Assessment and Safety Management 1:00

Unit 4: Coordination

- Personnel Interaction 7:00

COURSE INFORMATION AND REQUIRED MATERIALS
May 2015

Ethical Leadership in the Classroom (2007)

Hours: 8

Designed For: State Fire Training Instructors

Description: This one-day course is designed to provide you with concepts and theories of the ethical decision-making process, help you recognize the signs of an ethical dilemma, identify advantages and disadvantages of ethical behavior, and an opportunity to review examples of classroom situations in which instructors used their leadership role to either encourage or discourage ethical behavior. Participants in this class will examine ethics, values, principles, and morality. State Fire Training's Instructor Code of Ethics/Conduct will also be presented.

Prerequisites: None

Certification: None

Class Size: 30

Restrictions: This course **may** require a State Fire Training representative in addition to the Primary Instructor.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Code of Ethics/Conduct (double-sided) (2 per student)	2006	SFT
▪ Ethics Awareness Inventory	Fifth	TWI
▪ Value Cards	2007	Instructor
REQUIRED INSTRUCTOR MATERIALS		
▪ Facilitator's Guide (includes value cards for printing)	2007	SFT
▪ PowerPoint Slides	2007	SFT
▪ The Emperor's Club DVD	2002	Various

VENDORS		
SFT	State Fire Training Bookstore (916-445-8158)	
TWI	The Williams Institute, (480-517-1891)	www.ethics-TWI.org

ETHICAL LEADERSHIP IN THE CLASSROOM COURSE OUTLINE

Course Objectives: To provide the student with…

- A fundamental awareness of ethical values within fire service instructors by exploring examples of ethical behavior in the classroom environment.
- The basic concepts, terms, and theories of ethical decision-making processes.
- An instructor code of ethics.
- Concepts in ethical leadership.
- Ethics awareness and a method for assessing personal values.
- A process for analyzing the role of the fire service instructor in maintaining the value system through video case studies and classroom ethical situations.

Course Content 8:00
- Introduction and Overview 0.30
- Instructor Code of Ethics/Conduct 1:00
- Ethics Awareness Inventory 1:30
- Ethics, Principles, and Values 2:00
- Assessing Personal Core Values 1:00
- Recognizing Ethical Dilemmas 1:00
- Ethical Choices 1:00

Fire Instructor 2A: Techniques of Evaluation (1991)

Hours: 40

Designed For: Instructors and supervisors who are responsible for evaluating performance

Description: This course provides the instructor/supervisor with the techniques of evaluation. Course includes: Construction of written and performance tests, as well as test planning, test analysis, test security, and evaluation of test results to determine instructor and student effectiveness. Essential course for writing valid, objective tests.

Prerequisites: Fire Instructor 1A, Fire Instructor 1B
or
Training Instructor 1A, Training Instructor 1B, Training Instructor 1C

Certification: Fire Instructor II

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Supplement	1994	SFT
▪ Fire Service Instructor	Fifth	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Instructor Guide	1994	SFT

VENDORS		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE INSTRUCTOR 2A COURSE OUTLINE

Course Objectives: To provide the student with…

- The methods and techniques for constructing and using tests.
- Information to recognize and avoid poor questions and tests.
- The opportunity to apply the principles of test construction through practice test construction exercises.
- Information to plan tests and to perform test and item analysis.
- A variety of methods for managing the evaluation process.

Course Content 40:00
- Introduction 0:30
- Purposes of Testing 0:30
- Principles of Testing 0:45
- Uses of Oral Tests 0:30
- Test Planning 1:00
- True/False Test Construction 0:30
- Multiple Choice Test Construction 1:00
- Uses of Subjective Tests 0:30
- Theory of Manipulative Performance Testing 0:45
- Constructing and Administering Manipulative Performance Tests 0:45
- Test and Item Analysis 0:45
- Matching Test Construction 0:30
- Short Answer Test Construction 0:30
- Completion Test Construction 0:30
- Periodic Personnel Evaluations 0:45
- Managing the Evaluation Process 0:45
- Administering Tests to Meet Minimum Standards 0:30
- Using Assessment Centers as a Training Rescue 0:30
- Group Assignments 23:30
- Quizzes and Review 4:30
- Course Review and Summative Exam 1:00

COURSE INFORMATION AND REQUIRED MATERIALS
May 2015

Fire Instructor 2B: Group Dynamics and Problem Solving (1990)

Hours: 40

Designed For: Instructors, Training Officers, and management personnel who must lead discussions or staff meetings

Description: This course is designed to develop leadership skills. Group dynamics, problem-solving techniques, and interpersonal relations are utilized in staff meetings, brainstorming sessions, and conference meetings. Skills are developed for conducting formal public meetings, panel discussions, and forums.

Prerequisites: Fire Instructor 1A, Fire Instructor 1B
or
Training Instructor 1A, Training Instructor 1B, Training Instructor 1C

Certification: Fire Instructor II
Plans Examiner

Class Size: 30

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	Second	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE INSTRUCTOR 2B COURSE OUTLINE

Course Content 40:00
- Concepts of Group Dynamics
- Nonverbal Codes
- Evaluating Interpersonal Relations
- Rating Errors
- Discussion Groups
- Group Interaction
- Conference Leading
- Conference Chart Work
- Suggestions For Discussion Leaders
- Decision Making

Fire Instructor 2C: Employing Audiovisual Aids (1989)

Hours: 40

Designed For: Personnel involved in the design and delivery of instructional programs

Description: This course covers the principles and selection of media in the instructional process, employment of basic and advanced forms of instructional media, use of computers in the instructional process, and individualized instruction programs. Teaching demonstrations are required of all participants.

Prerequisites: Fire Instructor 1A, Fire Instructor 1B
or
Training Instructor 1A, Training Instructor 1B, Training Instructor 1C

Certification: Fire Instructor II

Class Size: 30

Restrictions: A course outline must be submitted and approved by State Fire Training.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor

VENDORS	

FIRE INSTRUCTOR 2C COURSE OUTLINE

- None (see "Restrictions" above)

Fire Instructor 3: Master Instructor Competency Evaluation (2010)

Hours: 36

Designed For: Future instructors for Training Instructor 1A, 1B, and 1C courses

Description: This course provides information necessary to deliver the Training Instructor 1A, 1B, and 1C courses and gives additional instruction in classroom communications. Successful completion of the class requires each student to adapt a current Training Instruction cognitive lesson plan and deliver a 30-minute teaching demonstrations. This course is mandatory for a person who desires to teach any of the Instructor Series Courses.

Prerequisites: One of the following four Level 1 options
1) Fire Instructor 1A and Fire Instructor 1B
2) Fire Instructor 1A, Training Instructor 1A, and Training Instructor 1C
3) Fire Instructor 1B, Training Instructor 1B, and Training Instructor 1C
4) Training Instructor 1A, Training Instructor 1B, and Training Instructor 1C
and
Fire Instructor 2A, 2B, 2C

Certification: Fire Instructor III

Class Size: Maximum: 25
Classes larger that 16 students require either another Senior Master Instructor or Senior Master Instructor Trainee to assist with evaluating the student instructor teaching demonstrations

Restrictions: The Primary Instructor for this course must be a registered Senior Master Instructor.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Fire Instructor 3 Student Supplement	2011	SFT
▪ Training Instructor 1A Instructor Guide and Student Supplement*	2010	SFT Website
▪ Training Instructor 1B Instructor Guide and Student Supplement *	2010	SFT Website
▪ Training Instructor 1C Instructor Guide and Student Supplement*	2010	SFT Website
*Purchased separately by the student, not included in the course registration fee		
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Fire Instructor 3 Instructor Guide	2011	SFT
▪ Fire Instructor 3 PowerPoint Slides on CD-ROM	2011	SFT
▪ Fire Instructor 3 Student Supplement	2010	SFT
▪ Training Instructor 1A Instructor Guide and Student Supplement*	2010	SFT Website
▪ Training Instructor 1B Instructor Guide and Student Supplement *	2010	SFT Website
▪ Training Instructor 1C Instructor Guide and Student Supplement*	2010	SFT Website
▪ Video Recording Equipment for Teaching Demonstrations (Optional)		

VENDORS		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Bookstore (916) 445-8158	
SFT Website	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

FIRE INSTRUCTOR 3 COURSE OUTLINE

Course Objectives: To provide the student with…

- Information to select, develop, organize, and utilize teaching methods and concepts that may be utilized in an interior or exterior learning environment
- Instructional techniques, tools, and materials while utilizing the Training Instructor curricula
- Techniques to develop and deliver an illustrated teaching presentation selecting from a variety of methods and techniques
- Constructive and positive feedback from peers to improve their personal teaching skills

Course Content 36:00
- Introduction and Course Overview 1:00
- Master Instructor Registration 2:00
- Mastering Lesson Plan Development 2:00
- Mastering Teaching Demonstrations 2:00

FIRE INSTRUCTOR 3 COURSE OUTLINE

CFSTES

Course: Instructor I: Instructional Methodology (2014)

Hours: 40 (see course plan for breakdown)

Designed For: Personnel preparing for a college level fire instructor, Company Officer, or SFT Certified Training Instructor position

Description: This course provides the skills and knowledge needed for the entry level professional instructor to perform his or her duties safely, effectively, and competently. The curriculum is based on the 2012 edition of NFPA 1041 Standard for Fire Service Instructor Professional Qualifications. At the end of this course, candidates for Instructor I certification will be able to teach and deliver instruction from a prepared lesson plan utilizing instructional aids and evaluation instruments. The Instructor I will also be able to adapt a lesson plan and complete the reporting requirements to the local jurisdiction.

Prerequisites: None, but the following courses are recommended:

- Introduction to the Incident Command System (IS-100.B), FEMA **OR**
- National Incident Management System (IS-700.A), FEMA

Certification: Instructor I

Standard: Complete all group activities and formative tests. Pass all individual activities without omitting critical criteria as identified on the activity sheet.

Class Size: 20; (16 students per lab section)

Student/ Instructor Ratio: 20:1, plus additional skills evaluators as needed to maintain 16:1 ratio for psychomotor teaching demonstrations.

Restrictions: None. However, instructor's must submit letter for approval of conditions outside the parameters of normal classroom instruction, e.g. class size exceeds 20, compressed course delivery, distance learning format.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fire and Emergency Services Instructor (ISBN 9780879394417)	8th	IFSTA
▪ Fire Service Instructor: Principles and Practice (ISBN: 9781449670832)	2nd	JB
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Instructor (ISBN 9780879394417)	8th	IFSTA
▪ Fire Service Instructor: Principles and Practice (ISBN: 9781449670832)	2nd	JB
▪ Online Instructor Resources	2014	SFT
▪ Various other Instructor Resources	2014	SFT-CP

VENDORS		
IFSTA	International Fire Service Training Association	https://shop.ifsta.org/
JB	Jones & Bartlett Learning	http://www.jblearning.com/
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/resources.php
SFT-CP	Course Plan	http://osfm.fire.ca.gov/training/resources.php

FIRE INSTRUCTOR I COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Instructor I Certification Process
- Topic 1-3: Definitions of Duty

Unit 2: Instructional Development

- Topic 2-1: Determining Needed Adaptations
- Topic 2-2: Adapting Lesson Plans

FIRE INSTRUCTOR I COURSE CONTENT (cont'd)

Unit 3: Instructional Delivery

- Topic 3-1: Organizing the Learning Environment
- Topic 3-2: Presenting Lessons
- Topic 3-3: Adjusting Presentations for Changing Circumstances
- Topic 3-4: Maintaining a Safe and Positive Learning Environment
- Topic 3-5: Operating Instructional Audiovisual Equipment
- Topic 3-6: Utilizing Audiovisual Materials

Unit 4: Evaluation and Testing

- Topic 4-1: Administering and Conducting Tests
- Topic 4-2: Grading and Securing Student Examinations
- Topic 4-3: Reporting Test Results
- Topic 4-4: Providing Evaluation Feedback to Students
- Topic 4-5 Evaluating Student Instructor Lesson Demonstrations

Unit 5: Program Management

- Topic 5-1: Assembling Course Materials
- Topic 5-2: Preparing Resource Requests
- Topic 5-3: Scheduling Instructional Sessions
- Topic 5-4: Completing and Submitting Training Records

CFSTES

Course: Instructor II: Instructional Development (2014)

Hours: 40 (see course plan for breakdown)

Designed For: Personnel preparing for a college level fire instructor, Company Officer, or SFT Certified Training Instructor position

Description: This course provides the skills and knowledge needed for the intermediate level professional instructor to perform his or her duties safely, effectively, and competently. The curriculum is based on the 2012 edition of NFPA 1041 Standard for Fire Service Instructor Professional Qualifications and the 2012 edition of NFPA 1403 Standard on Live Fire Training Evolutions. At the end of this course, candidates for Instructor II certification will be able to develop lesson plans and evaluation instruments, teach and deliver instruction, and evaluate and coach other instructors. The Instructor II will also be able to analyze resources and formulate a program budget.

Prerequisites: Instructional Methodology
Introduction to the Incident Command System (IS-100.B), FEMA **OR** National Incident Management System (IS-700.A), FEMA

Certification: Instructor II

Standard: Complete all group activities and formative tests. Pass all individual activities without omitting critical criteria as identified on the activity sheet.

Class Size: 20; (16 students per lab section)

Student/ Instructor Ratio: 20:1, plus additional skills evaluators as needed to maintain 16:1 ratio for psychomotor teaching demonstrations.

Restrictions: None. However, instructor's must submit letter for approval of conditions outside the parameters of normal classroom instruction, e.g. class size exceeds 20, compressed course delivery, distance learning format.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fire and Emergency Services Instructor (ISBN 9780879394417)	8th	IFSTA
▪ Fire Service Instructor: Principles and Practice (ISBN: 9781449670832)	2nd	JB
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Instructor (ISBN 9780879394417)	8th	IFSTA
▪ Fire Service Instructor: Principles and Practice (ISBN: 9781449670832)	2nd	JB
▪ Online Instructor Resources	2014	SFT
▪ Various other Instructor Resources	2014	SFT-CP

VENDORS		
IFSTA	International Fire Service Training Association	https://shop.ifsta.org/
JB	Jones & Bartlett Learning	http://www.jblearning.com/
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/resources.php
SFT-CP	Course Plan	http://osfm.fire.ca.gov/training/resources.php

FIRE INSTRUCTOR I COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Instructor II Certification Process
- Topic 1-3: Definitions of Duty

Unit 2: Instructional Development

- Topic 2-1: Creating Lesson Plans
- Topic 2-2: Modifying Lesson Plans

FIRE INSTRUCTOR II COURSE CONTENT (cont'd)

Unit 3: Instructional Delivery

- Topic 3-1: Conducting Classes and Conference Sessions
- Topic 3-2: Supervising Training Activities

Unit 4: Evaluation and Testing

- Topic 4-1: Developing Student Evaluation Instruments
- Topic 4-2: Developing a Class Evaluation Instrument

Unit 5: Program Management

- Topic 5-1: Scheduling Instructional Sessions
- Topic 5-2: Formulating Budget Needs
- Topic 5-3: Acquiring Training Resources
- Topic 5-4: Coordinating Record-Keeping
- Topic 5-5: Evaluating Instructors

Instructional Techniques for Company Officers

Hours: 16

Designed For: Company Officers and fire fighters responsible for in-service instruction and training

Description: This NFA hand-off course covers basic instructional concepts and techniques, effective communication, teaching from lesson plans, and methods of instruction with an emphasis on skills training and adult learning.

Prerequisites: None

Certification: None

Class Size: 25

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		NTIS
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		NTIS

VENDORS		
NTIS	National Technical Information Service (800-553-6847)	www.ntis.gov

INSTRUCTIONAL TECHNIQUES FOR COMPANY OFFICERS COURSE OUTLINE

- None

Regional Instructor Orientation

Hours: 7:30

Designed For: Personnel interested in teaching any State Fire Training courses

Description: This course is designed to provide instructors who will deliver SFT training programs with an overview of State Fire Training, CFSTES and FSTEP, instructor registration requirements, instructor responsibilities and accountability, how to schedule and return courses, and the SFT Procedures Manual.

Prerequisites: None

Certification: None

Class Size: 30

Restrictions: This course is scheduled and taught by State Fire Training staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Supplement	Current	N/A
▪ SFT Procedures Manual	Current	Online
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	Current	N/A

REGIONAL INSTRUCTOR ORIENTATION COURSE OUTLINE

Course Objectives: To provide the student with…

- A working knowledge of the State Fire Training procedures for instructor registration, responsibilities, accountability, and maintenance.
- A working knowledge of the State Fire Training procedures for course administration.
- Tools to navigate the State Fire Training system successfully.

Course Content: 7:30

- Administration and SFT Overview..... 2:15
- Instructor Qualifications and Registration 1:15
- Instructor Responsibilities and Accountability 1:00
- State Fire Training Procedures Manual 2:30
- Instructor Application Review Assistance 0:30

Training Instructor 1A: Cognitive Lesson Delivery (2010)

Hours: 40

Designed For: Personnel preparing for a Company Officer, SFT Registered Instructor, or Training Officer position

Description: This is the first of a three-course series. Topics include methods and techniques for training in accordance with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations. Two (2) student instructor teaching demonstrations are required of all.

Prerequisites: None

Certification: Fire Officer
Training Instructor

Class Size: Maximum: 32
Classes larger that 16 students require either another Master Instructor or a qualified skills evaluator to assist with evaluating the student instructor teaching demonstrations

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Training Instructor 1A Student Supplement	2010	SF
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Instructor-developed Summative Exam	Current	Instructor
▪ PowerPoint Slides on CD-ROM (Optional)	2010	SF
▪ Training Instructor 1A Guide	2010	SF
▪ Training Instructor 1A Student Supplement	2010	SF

VENDOR		
CFCA	CA Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

TRAINING INSTRUCTOR 1A: COGNITIVE LESSON DELIVERY

Course Objectives: To provide the student with…

- A variety of methods and techniques for training in accordance with the latest concepts in career education.
- Information to select, adapt, organize, and utilize instructional materials appropriate for teaching cognitive lessons.
- Criteria and methods to evaluate teaching and learning efficiency.
- An opportunity to apply major principles of learning through teaching demonstrations.

Course Content: 40:00

Unit 1: Introduction

Orientation and Administration 1:00

Unit 2: Instructional Methodology, Adaptation, and Delivery

Fire and Emergency Services Instruction As It Relates To Cognitive Training 1:00
Principles of Learning 1:30
Defining Levels of Instruction 0:30
Components of Learning Objectives 0:30
Employing the Four-step Method of Instruction As It Relates To Cognitive Training 1:00
Assembling and Reviewing Instructional Materials As They Relate To Cognitive Training 1:00
Adapting Cognitive Lesson Materials 1:30
Legal and Ethical Considerations As They Relate To Cognitive Training 1:30
Methods of Instructional Delivery 1:00
Presentation Techniques For Cognitive Training 2:00
Managing the Learning Environment for Cognitive Training 1:00
Selecting and Using Audiovisual Training Aids 1:30
Effective Interpersonal Communications 1:00
Student Attitudes and Behaviors 1:00
Procedure Used For Evaluating Student Instructor Teaching Demonstrations 1:00

TRAINING INSTRUCTOR 1A: COGNITIVE LESSON DELIVERY

Unit 3: Testing
- Introduction To and Administration of Oral and Written Tests 1:00
- Student Progress and Testing Feedback 0:30

Student Instructor Teaching Demonstrations 16:30
Formative Tests 3:00
Instructor-developed Summative Test 1:00

Training Instructor 1B: Psychomotor Lesson Delivery (2010)

Hours: 40

Designed For: Personnel preparing for a Company Officer, SFT Registered Instructor, or Training Officer position

Description: This is the second of a three-course series. Topics include methods/techniques for training with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching psychomotor lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations. Two (2) student instructor teaching demonstrations are required of all.

Prerequisites: Training Instructor 1A

Certification: Fire Officer
Training Instructor

Class Size: Maximum: 32
Classes larger THAN 16 students require either another Master Instructor or a qualified skills evaluator to assist with evaluating the student instructor teaching demonstrations

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Training Instructor 1B Student Supplement	2010	SF
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Instructor-developed Summative Exam	Current	Instructor
▪ PowerPoint Slides on CD-ROM (Optional)	2010	SF
▪ Training Instructor 1B Instructor Guide	2010	SFT
▪ Training Instructor 1B Student Supplement	2010	SF

VENDOR		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

TRAINING INSTRUCTOR 1B: PSYCHOMOTOR LESSON DELIVERY

Course Objectives: To provide the student with…

- A variety of methods and techniques for training in accordance with the latest concepts in career education.
- Information to select, adapt, and use instructional materials appropriate for teaching psychomotor lessons.
- Criteria and methods to evaluate teaching and learning efficiency.
- An opportunity to apply major principles of learning through teaching demonstrations.

Course Content: 40:00

Unit 1: Introduction
- Orientation and Administration 1:00

Unit 2: Instructional Methodology, Adaptation, and Delivery
- Fire and Emergency Services Instruction As It Relates To Psychomotor Training 1:00
- Employing the Four-step Method of Instruction As It Relates To Psychomotor Training 1:00
- Presenting Psychomotor Instruction 1:00
- Safety Considerations For Psychomotor Instruction 1:00
- Managing the Learning Environment For Psychomotor Training 1:00
- Key Components of A Psychomotor Lesson 0:30
- Adapting Psychomotor Lesson Materials 1:30
- Selecting and Using Training Aids 1:00
- Procedure Used For Evaluating Student Instructor Teaching Demonstrations 1:00
- Legal and Ethical Considerations As They Relate To Psychomotor Training 1:30

Unit 3: Testing
- Introduction To and Administration of Performance Tests 1:30
- Student Progress and Testing Feedback 1:00

Reviewing and Assembling Instructional Materials 2:00

Student Instructor Teaching Demonstrations 20:00

Formative Tests 3:00
- Instructor-developed Summative Test 1:00

Training Instructor 1C: Instructional Development Techniques (2010)

Hours: 40

Designed For: Personnel preparing for SFT Registered Instructor or Training Officer position

Description: This is the third of a three-course series. Topics include methods and techniques for developing lesson plans, ancillary components, and tests in accordance with the latest concepts in career education. The course offers the opportunity to develop, receive feedback, and finalize instructional materials and deliver a teaching demonstration. Two (2) student instructor teaching demonstrations are required of all.

Prerequisites: Training Instructor 1A, Training Instructor 1B

Certification: Training Instructor

Class Size: Maximum: 32
Classes larger that 16 students require either another Master Instructor or a qualified skills evaluator to assist with evaluating the student instructor teaching demonstrations

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Training Instructor 1C Student Supplement	2010	SF
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Instructor	Seventh	CFCA/FPP
▪ Instructor-developed Summative Exam	Current	Instructor
▪ PowerPoint Slides on CD-ROM (Optional)	2010	SF
▪ Training Instructor 1C Instructor Guide	2010	SFT
▪ Training Instructor 1C Student Supplement	2010	SF

VENDOR		
CFCA	California Fire Chief's Association Bookstore (800-733-2314)	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

TRAINING INSTRUCTOR 1C: INSTRUCTIONAL DEVELOPMENT TECHNIQUES

Course Objectives: To provide the student with…

- A variety of methods and techniques for developing lesson plans and tests in accordance with the latest concepts in career education.
- Information to develop cognitive and psychomotor lesson plans and related supplemental materials.
- Various testing instruments to evaluate teaching and learning efficiency.
- An opportunity to develop, receive feedback, and finalize instructional materials and deliver a teaching demonstration.

Course Content: 40:00

Unit 1: Introduction
- Orientation and Administration 1:00

Unit 2: Methodology
- Reasons For Lesson Plan Development 0:30
- Sources of References and Materials 0:30
- Determining Levels of Instruction 0:30
- Employing the Four-step Method of Instruction 0:30
- Teaching English Learners and Students With Special Needs 0:30

Unit 3: Instructional Preparation and Delivery
- Elements of A Course Outline 0:30
- Components of Cognitive and Psychomotor Lesson Plans 1:00
- Developing Student Behavioral Objectives 1:00
- Developing A Cognitive Lesson Plan (SFT Format) 2:00
- Developing A Psychomotor Lesson Plan (SFT Format) 1:30
- Developing and Employing Ancillary Components 1:00
- Selecting and Employing Audiovisual Training Aids 1:30
- Transition Techniques Within and Between Audiovisual Training Aid Devices 1:00

TRAINING INSTRUCTOR 1C: INSTRUCTIONAL DEVELOPMENT TECHNIQUES

Explosives Recognition and Reconnaissance

Hours: 40

Designed For: Fire investigators and law enforcement personnel

Description: Designed to instruct on the identification, description, and evaluation of explosives and fireworks, and to cover applicable laws and regulations. Stresses legal preplanning for EOD incidents, bomb threat incident response blast mitigation, scene safety and security, evacuation protocols and scene search techniques. Does not involve handling of any explosives.

Prerequisites: Employment with a public safety agency or response to EOD incidents

Certification: None

Class Size: 40

Restrictions: This course is scheduled and taught by SFM Arson and Bomb Investigators only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

EXPLOSIVES RECOGNITION AND RECONNAISSANCE COURSE OUTLINE

▪ None

Fire/Arson Detection

Hours: 16

Designed For: Fire fighters and fire investigators involved in fire investigation

Description: This NFA hand-off course covers determining the point of origin and probable cause, recognizing indications of possible arson, preserving the fire scene and evidence for investigative purposes, and basic procedures relative to conducting a fire investigation.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		NTI
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		NTI

VENDOR		
NTIS	National Technical Information Service (800-553-6847)	www.ntis.gov

FIRE/ARSON DETECTION COURSE OUTLINE
▪ None

Fire Investigation 1A: Fire Origin and Cause Determination (1996)

Hours: 40

Designed For: Fire fighters, fire investigators, and law enforcement officers assigned to fire investigation

Description: This course provides the participants with an introduction and basic overview of fire scene investigation. The focus of the course is to provide information on fire scene indicators and to determine the fire's origin.

Prerequisites: None

Certification: Fire Officer
Fire Investigator I

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	1996	SF
REQUIRED INSTRUCTOR MATERIALS	**EDITION**	**VENDORS**
▪ Instructor Created Summative Exam	Current	Instructor
▪ Instructor Guide	1996	SF

VENDOR		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE INVESTIGATION 1A COURSE OUTLINE

Course Objectives: To provide the student with…

- To provide students with an overview of fire investigative practices and responsibilities associated with fire origin and cause.
- To provide students with technical information enabling them to determine the area of fire origin.
- To provide students with background information that will lead them to develop an opinion of the fire causes.
- To provide students with technical information on the State's arson laws and legal aspects of fire scene investigation.

Course Content 40:00
- Orientation and Administration 1:00
- Introduction to Fire Investigation 1:00
- Fire Behavior 4:00
- Legal Aspects of Fire Investigation 3:00
- Arson Law 1:00
- Fire Scene Documentation 1:00
- Point of Origin Determination 4:00
- Accidental Ignition Sources 3:00
- Electrical Ignition Sources 2:30
- Arson Fire Indicators 4:00
- Incendiary Devices 1:00
- Structure Fire Investigation 4:30
- Vehicle Fire Investigation 2:00
- Wildland Fire Investigation 4:00
- Explosions 2:00
- Course Review and Summative Exam 2:00

Fire Investigation 1B: Techniques of Fire Investigation (2000)

Hours: 40
Designed For: Fire fighters and fire investigation personnel
Description: This course provides a deeper understanding of fire investigation and builds on Fire Investigation 1A. Topics include the juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives, and fire fatalities.
Prerequisites: Fire Investigation 1A
Certification: Fire Investigator I
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	2000	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Instructor Guide	2000	SFT
▪ PowerPoint Slides on CD-ROM (Optional)	2000	SFT

VENDOR		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.

OUTLINE

Course Objectives: To provide the student with…
- Information on scene safety for the investigator including post blast investigation.
- Information on evidence recognition, documentation, and preservation including scene photography and trace evidence.
- Information on witness and suspect interviewing and interrogation, including juvenile law.
- Information on fire fatalities and injuries including scene investigation and mechanism of injury
- Information documentation of findings including case reports, insurance information, and other resources available to the investigator.

Course Content 40:00
- Introduction to Investigation 1B 2:00
- Motives 4:00
- Scene Safety for the Investigator 1:00
- Post Blast Investigation 1:00
- Scene Photography 2:00
- Evidence Recognition, Documentation, and Preservation 4:00
- Trace Evidence 5:00
- Introduction to Interviewing 2:00
- Techniques of Interviewing 7:00
- Introduction to Juvenile Law 1:00
- Scene Investigation 2:00
- Mechanism of Injury 2:00
- Introduction to Case Reports 1:00
- Insurance Information for the Fire Investigator 2:00
- Resources 1:00
- Building Construction Drawings and Terminology 2:00
- Course Review and Summative Exam 2:00

Fire Investigation 2A: Criminal and Legal Procedures (2003)

Hours: 40

Designed For: Fire investigation personnel

Description: This course provides information on conducting an explosive investigation and a surveillance operation, preparing a search warrant, testifying as an expert witness, assembling a curriculum vitae, and properly documenting a criminally caused fire. In addition, each student will be assigned to an investigative team to conduct an investigation of their own criminally caused fire. During this practical exercise, each team will be required to conduct the scene investigation, properly collect and document supportive evidence, prepare their written case report, and present their finding to a district attorney and a judge to review.

Prerequisites: Fire Investigation 1A, Fire Investigation 1B

Certification: Fire Investigator II

Class Size: 30 (24 optimum)

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Supplement	1989	SFT
▪ Search Warrants	2003	CDAA
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Instructor Guide	1989	SFT

VENDORS		
CDAA	California District Attorney's Association	www.cdaa.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE INVESTIGATION 2A COURSE OUTLINE

Course Objectives: To provide the student with…

- Information to differentiate between the three effects of an explosion.
- Information and techniques to establish an arson corpus after examining a practical fire scene.
- A fire scene to examine and determine the appropriate evidence to support a fire cause.
- Information to appraise an explosion scene to determine if a criminal act has occurred.
- Techniques to organize their case investigation utilizing proper case reports, court exhibits, and testimony.
- The four different methods of heat transfer in order to compare their effects during a practical situation.
- Information to differentiate between the U.S. Supreme Court's findings and California State Supreme Court requirements in preparing a search warrant and apply the rules appropriately to a practical situation.
- Applicable California Arson Law section (s) pertaining to a practical situation.
- Information to recognize the elements necessary for the ignition and the sustained combustion of fuel and heat in a practical situation.
- Common scene indicators of arson and their applicability to a practical situation.
- The methodology and procedures required for a proper surveillance operation.

Course Content 40:00

- Orientation and Administration 1:00
- Explosion Investigation 3:00
- Surveillance Investigations 3:00
- Resume Reviews 1:00
- Fourth Amendment Review Inspection and Search Warrants 4:00
- Search Warrants 4:00
- Live Fire Demonstration and Structure Burn Examination 4:00
- Fire Scene Investigations 4:00
- Report Writing and Documentation on Fire Scene Investigations 4:00
- Court Room Demeanor 2:00
- Case Preparation 6:00
- Moot Court 2:00
- Course Review and Summative Exam 2:00

Fire Investigation 2B: Field Case Studies

Hours: 40

Designed For: Fire and law enforcement officers responsible for fire investigation and courtroom appearances

Description: This course provides advanced instruction in fire scene investigation, case preparation, and courtroom presentation. Topics include review of fire scene photography, sketching, evidence collection, interviewing and interrogation, and extensive use of simulations for developing and presenting an arson case.

Prerequisites: Fire Investigation 1A, Fire Investigation 1B, Fire Investigation 2A

Certification: Fire Investigator II

Class Size: 30 (24 optimum)

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	Second	SF
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	Second	SF

VENDOR		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE INVESTIGATION 2B COURSE OUTLINE

▪ None

CFSTES

Course: Chief Fire Officer 3A: Human Resource Management (2014)
Hours: 26 (see course plan for breakdown)
Designed For: The certified Company Officer advancing to the Chief Fire Officer classification
Description: This course provides students with a basic knowledge of the human resources requirements related to the roles and responsibilities of a Chief Fire Officer including developing plans for providing employee accommodation, developing hiring procedures, establishing personnel assignments, describing methods of facilitating and encouraging professional development, developing an ongoing education training program, developing promotion procedures, developing proposals for improving employee benefits, and developing a measurable accident and injury prevention program.
Prerequisites: Meet the educational requirements for Company Officer
Certification: Chief Fire Officer
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 25 max
Student/ Instructor Ratio: 25:1
Restrictions: None.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
▪ Chief Officer: Principles and Practice Instructor's Toolkit CD (ISBN: 9780763798390)	--	JB
▪ Chief Officer: Principles and Practice Instructors Test Bank CD (ISBN: 9780763798406)	--	JB
▪ Manager's Guide to the CA Firefighters Bill of Rights (ISBN 9780981767222)	1st	Various
▪ Pocket Guide to the Firefighters Procedural Bill of Rights Act	2ND	CPER

VENDORS		
JB	Jones & Bartlett Learning	http://www.jblearning.com/
CPER	California Public Employee Relations (2012)	

CHIEF FIRE OFFICER 3A COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Executive Chief Officer Certification Process
- Topic 1-3: Definition of Chief Fire Officer
- Topic 1-4: Definition of Duties for Fire Officer III
- Topic 1-5: Definition of Duties for Wildland Fire Officer II

Unit 2: Managing Personnel

- Topic 2-1: Developing Plans for Providing Employee Accommodation
- Topic 2-2: Developing Hiring Procedures
- Topic 2-3: Establishing Personnel Assignments
- Topic 2-4: Defining the Requirements of the California Firefighters Procedural Bill of Rights Act

CHIEF FIRE OFFICER 3A COURSE CONTENT

Unit 3: Professional Development

- Topic 3-1: Describing Methods of Facilitating and Encouraging Professional Development
- Topic 3-2: Developing an Ongoing Education Training Program
- Topic 3-3: Developing Promotion Procedures

Unit 4: Employee Benefits

- Topic 4-1: Developing Proposals for Improving Employee Benefits

Unit 5: Employee Safety

Topic 5-1: Developing a Measurable Accident and Injury Prevention Program

CFSTES

Course: Chief Fire Officer 3B: Budget and Fiscal Responsibilities (2014)
Hours: 18 (see course plan for breakdown)
Designed For: The certified Company Officer advancing to the Chief Fire Officer classification
Description: This course provides students with a basic knowledge of the budgeting requirements related to the roles and responsibilities of a Chief Fire Officer including developing a budget management system, developing a division or departmental budget, and describing the process for ensuring competitive bidding.
Prerequisites: Meet the educational requirements for Company Officer
Certification: Chief Fire Officer
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 25 max
Student/ Instructor Ratio: 25:1
Restrictions: None.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
▪ Little Budget Book: A Portable Budgeting Guide for Local Government (ISBN: 9780963437457)	2ND	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
▪ Chief Officer: Principles and Practice Instructor's Toolkit CD (ISBN: 9780763798390)	--	JB
▪ Chief Officer: Principles and Practice Instructors Test Bank CD (ISBN: 9780763798406)	--	JB
▪ Little Budget Book: A Portable Budgeting Guide for Local Government (ISBN: 9780963437457)	2ND	Various

VENDORS		
JB	Jones & Bartlett Learning	http://www.jblearning.com/

CHIEF FIRE OFFICER 3B COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Executive Chief Officer Certification Process

Unit 2: Budget Management

- Topic 2-1: Developing a Budget Management System
- Topic 2-2: Developing a Divisional or Departmental Budget

Unit 3: Competitive Bidding

- Topic 3-1: Describing the Process for Ensuring Competitive Bidding

CFSTES

Course: Chief Fire Officer 3C: General Administration Functions (2014)
Hours: 24 (see course plan for breakdown)
Designed For: The certified Company Officer advancing to the Chief Fire Officer classification
Description: This course provides students with a basic knowledge of the administration requirements related to the roles and responsibilities of a Chief Fire Officer including directing a department record management system, analyzing and interpreting records and data, developing a model plan for continuous organizational improvement, developing a plan to facilitate approval, preparing community awareness programs, and evaluating the inspection program of the AHJ.
Prerequisites: Meet the educational requirements for Company Officer
Certification: Chief Fire Officer
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 25 max
Student/ Instructor Ratio: 25:1
Restrictions: None.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Officer: Principles and Practice (ISBN: 9780763779290)	1ST	JB
▪ Chief Officer: Principles and Practice Instructor's Toolkit CD (ISBN: 9780763798390)	--	JB
▪ Chief Officer: Principles and Practice Instructors Test Bank CD (ISBN: 9780763798406)	--	JB

VENDORS		
JB	Jones & Bartlett Learning	http://www.jblearning.com/

CHIEF FIRE OFFICER 3C COURSE CONTENT

Unit 1: Introduction
- Topic 1-1: Orientation and Administration
- Topic 1-2: Executive Chief Officer Certification Process

Unit 2: Records and Data
- Topic 2-1: Directing a Department Record Management System
- Topic 2-2: Analyzing and Interpreting Records and Data

Unit 3: Standards of Cover
- Topic 3-1: Developing a Model Plan for Continuous Organizational Improvement

Unit 4: Community Risk Reduction
- Topic 4-1: Developing a Plan to Facilitate Approval
- Topic 4-2: Preparing Community Awareness Programs
- Topic 4-3: Evaluating the Inspection Program of the AHJ

CFSTES

Course: Company Officer 2A: Human Resource Management (2014)
Hours: 40 (see course plan for breakdown)
Designed For: Aspiring company officers
Description: This course provides information on the use of human resources to accomplish assignments, evaluating member performance, supervising personnel, and integrating health and safety plans, policies, and procedures into daily activities as well as the emergency scene.
Prerequisites: Meet the educational requirements for Fire Fighter II
Certification: Fire Officer (Level I and II)
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 32 max
Student/ Instructor Ratio: 32:1
Restrictions: None.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ The required textbook chosen by the instructor	--	--
▪ Pocket Guide to the Firefighters Procedural Bill of Rights Act	2ND	CPER
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Company Officer (ISBN 0879392819) **OR**	4th	IFSTA
Fire Officer: Principles and Practice (ISBN: 9781449600621)	2nd	JB
▪ Pocket Guide to the Firefighters Procedural Bill of Rights Act	2ND	CPER
▪ Online Instructor Resources	2014	SFT
▪ OPTIONAL - Human Resources Management for the Fire Service	1ST	JB
▪ OPTIONAL - Fire and Emergency Services Administration: Management & Leadership Practices	2ND	JB
▪ OPTIONAL – Fire Officer: Practice Student Workbook	2ND	JB

VENDORS		
IFSTA	International Fire Service Training Association	https://shop.ifsta.org/
JB	Jones & Bartlett Learning	http://www.jblearning.com/
CPER	California Public Employee Relations (2012)	
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/resources.php

COMPANY OFFICER 2A COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Officer Certification Process
- Topic 1-3: Definition of Duty

Unit 2: Human Resource Management

- Topic 2-1: Applying and Following Human Resources Policies and Procedures
- Topic 2-2: Creating a Professional Development Plan
- Topic 2-3: Assigning Nonemergency Tasks or Responsibilities
- Topic 2-4: Assigning Emergency Tasks or Responsibilities
- Topic 2-5: Directing Unit Members during a Training Evolution

COMPANY OFFICER 2A COURSE CONTENT

- Topic 2-6: Supervising and Coordinating the Completion of Assignments
- Topic 2-7: Performing and Reporting Job Evaluations
- Topic 2-8: Recommending Action for Member-Related Problems
- Topic 2-9: Improving Member Performance
- Topic 2-10: Explaining the Impact of the California Firefighters Procedural Bill of Rights

Unit 3: Health and Safety

- Topic 3-1: Applying Safety Regulations
- Topic 3-2: Describing the Benefits of Wellness and Fitness Programs
- Topic 3-3: Conducting an Initial Accident Review
- Topic 3-4: Analyzing and Reporting on Member History

CFSTES

Course: Company Officer 2B: General Administrative Functions (2014)
Hours: 20 (see course plan for breakdown)
Designed For: Aspiring company officers
Description: This course provides information on general administrative functions and the implementation of department policies and procedures and addresses conveying the fire department's role, image, and mission to the public.
Prerequisites: Meet the educational requirements for Fire Fighter II
Certification: Fire Officer (Level I and II)
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 32 max
Student/ Instructor Ratio: 32:1
Restrictions: None.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ The required textbook chosen by the instructor	--	--
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Company Officer (ISBN: 0879392819)	4th	IFSTA
OR Fire and Emergency Services Administration: Management & Leadership Practices (9871449605834)	2ND	JB
▪ Fire Officer: Principles and Practice (ISBN: 9781449600621)	2nd	JB
▪ Management in the Fire Service (ISBN: 9780763751692)	4TH	JB
▪ Online Instructor Resources	2014	SFT
▪ State and Federal laws and regulations	--	CALFIRE

VENDORS		
IFSTA	International Fire Service Training Association	https://shop.ifsta.org/
JB	Jones & Bartlett Learning	http://www.jblearning.com/
CALFIRE	CA Laws Relating to Fires & FF	http://osfm.fire.ca.gov/firelaws/firelaw.php
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/resources.php

COMPANY OFFICER 2B COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Officer Certification Process
- Topic 1-3: Definition of Duty

Unit 2: Administration

- Topic 2-1: Explaining the Impact of State and Federal Laws and Regulations
- Topic 2-2: Explaining Components of the Organization
- Topic 2-3: Executing Routine Administrative Functions
- Topic 2-4: Describing the Purchasing Process
- Topic 2-5: Developing a Project or Divisional Budget
- Topic 2-6: Preparing Budget Requests
- Topic 2-7: Collecting Incident Response Data
- Topic 2-8: Preparing a Report
- Topic 2-9: Developing Plans for Organizational Change

- Topic 2-10: Developing a Policy or Procedure
- Topic 2-11: Recommending Changes to and Implementing Departmental Policies
- Topic 2-12: Preparing a News Release

Unit 3: Community and Government Relations

- Topic 3-1: Explaining the Benefits of Cooperating with Allied Organizations
- Topic 3-2: Initiating Action to Address Community Needs
- Topic 3-3: Initiating Action to Address Citizen Concerns

Fire Management 1: Management/Supervision for Company Officers (2000)

Hours: 40
Designed For: Company Officers or fire fighters preparing for the position of Company Officer
Description: This course prepares or enhances the first line supervisor's ability to supervise subordinates. It introduces key management concepts and practices and includes discussions about decision making, time management, leadership styles, personnel evaluations, and counseling guidelines.
Prerequisites: None
Certification: Fire Officer
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Fire and Emergency Services Company Officer	Fourth	FP
▪ Student Supplement	2000	SF
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Fire and Emergency Services Company Officer	Fourth	FP
▪ Instructor Guide	2000	SF
▪ PowerPoint Slides on CD-ROM (Optional)	2000	SF
▪ Student Supplement	2000	SF

VENDOR		
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

FIRE MANAGEMENT 1 COURSE OUTLINE

Course Objectives: To provide the student with…

- Information for the transition from fire fighter to fire officer by presenting the skills and responsibilities required of first level supervisors.
- A summary of how internal and external influences affect the fire officer and how to effectively deal with these influences.
- An overview of supervision, management, and leadership concepts, practices, and theories.
- A summary of the advantages, disadvantages, and effects of various recognized styles of leadership and leadership profiles.
- A summary of common emotional and behavioral characteristics of an individual or working group as it applies to the responsibility of subordinates and supervisors.
- An overview of basic supervisory, managerial, and leadership skills required in decision making, delegating, personnel motivation, communicating, time management, resource management, record keeping, team building, disciplinary functions, and dealing with change and stress.
- Examples of the following techniques used by supervisors in managing personnel: conducting interviews, counseling, controlling work activities, goal setting, evaluating, promoting affirmative action, and managing the work place environment.
- A summary of the effects, interpretation, implementation, and development of policies and procedures and the necessity for accuracy, clarity, and impartiality.

Course Content 40:00

Unit 1 - Introduction
- Orientation and Administration 1:00
- Introduction to Management and Supervision 1:30

Unit 2 - Supervision
- Principles of Organizations and Organizational Structure 1:00
- Motivation 2:00
- Delegation 1:00
- Problem Solving/Decision Making 1:30
- Verbal Communication 2:00
- Written Communication 1:00

FIRE MANAGEMENT 1 COURSE OUTLINE

Fire Management 2A: Organizational Development and Human Relations (2009)

Hours: 40
Designed For: Chief Officers, Company Officers, Staff Officers, Training Officers and other Fire Service Managers
Description: This course provides information on the foundations of 1) individual behavior, personality and emotions, motivational concepts, individual decision making; 2) group behavior, work teams, group dynamics, group communication, conflict and negotiations, power and politics, leadership and creating trust; and 3) organizational structure, human resources policies and practices, organizational culture, and organizational change and development.
Prerequisites: Fire Management 1
Certification: Chief Officer
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Fire Officer's Desk Reference (Optional)	2006	JB
▪ Organizational Behavior, Stephen P. Robbins and Tim A. Judge	13th	PH
▪ The Fire Chief's Handbook	Sixth	PW
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Fire Officer's Desk Reference (Optional)	2006	J
▪ Instructor-developed Summative Test	Current	Instructor
▪ Myers-Briggs Forms or Kiersey Sort Forms	- - -	CPP
▪ Organizational Behavior, Stephen Robbins	12th	PH
▪ The Fire Chief's Handbook	Sixth	PW
▪ The Fire Chief's Handbook Study Guide (Optional)	Sixth	PW

VENDOR		
CPP	Consulting Psychologist Press (800-624-1765)	www.cpp.com/company/contact.asp
JB	Jones and Bartlett Publishers (800-832-0034 x2)	www.jbpub.com
PH	Pearson/Prentice Hall	vig.prenhall.com
PW	PennWell Books/Fire Engineering (800-752-9764)	www.pennwellbooks.com/fire.html .

FIRE MANAGEMENT 2A COURSE OUTLINE

Course Objectives: To provide the student with…
- Techniques to make the transition from supervisor to manager.
- Information regarding the impact of internal and external influences on the organization and the impact of culture.
- Information on personality traits inherent in individuals and their effect on the organization.
- Information on group dynamics and its impact on the organization.
- Information conflict resolution and negotiations.
- Methods and styles of leadership and techniques for creating trust within the organization.
- Information on the nature of power and politics within the organization.

Course Content 40:00

Unit 1: Introduction
- What Is Organizational Behavior?

Unit 2: the Individual
- Foundations of Individual Behavior
- Values, Attitudes, and Job Satisfaction
- Personality and Emotion
- Perception and Individual Decision Making
- Basic Motivation Concepts
- Motivation: From Concepts to Applications

Unit 3: the Group
- Foundations of Group
- Behavior Understanding Work
- Teams Communication
- Basic Approaches to Leadership
- Contemporary Issues in Leadership

FIRE MANAGEMENT 2A COURSE OUTLINE

Power and Politics
Conflict and
Negotiation

Unit 4: the Organization
System

Foundations of Organization Structure.
Organizational Culture.
Human Resource Policies and Practices.

Unit 5: Organizational Dynamics

Organizational Change and Stress Management.

Unit 6: Contemporary Issues Regarding Organizational Development and Human Relations

Instructor-developed Summative Test

Fire Management 2B: Fire Service Financial Management (2009)

Hours: 40
Designed For: Chief Officers, Company Officers, Staff Officers, and other Fire Service Managers
Description: This course is designed to provide insight into the cyclical nature of budgeting and financial management. As a management course, the student will become familiar with essential elements of the financial planning, budget preparation, budget justification, and budget controls.
Prerequisites: Fire Management 1
Certification: Chief Officer
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Fire Officer's Desk Reference (Optional)	2006	JB
▪ Management Policies in Local Government Finance	Fifth	ICMA
▪ Managing Fire and Rescue Services (Optional)	2002	ICMA
▪ The Fire Chief's Handbook	Sixth	PW
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Fire Officer's Desk Reference (Optional)	2006	J
▪ Instructor-developed Summative Test	Current	Instructor
▪ Management Policies in Local Government Finance	Fifth	ICMA
▪ Managing Fire and Rescue Services (Optional)	2002	ICMA
▪ The Fire Chief's Handbook	Sixth	PW
▪ The Fire Chief's Handbook Study Guide (Optional)	Sixth	PW

VENDOR		
ICMA	International City/County Management Association (202-289-4262)	www.icma.org/press/
JB	Jones and Bartlett Publishers (800-832-0034 x2)	www.jbpub.com
PW	PennWell Books/Fire Engineering (800-752-9764)	www.pennwellbooks.com/fire.html

FIRE MANAGEMENT 2B COURSE OUTLINE

Course Objectives: To provide the student with…

- Techniques to make the transition from supervisor to manager.
- Information on developing new revenue sources.
- Information on designing a budget process that includes performance reporting.
- Information on conducting strategic economic development.
- Information on debt management and bond sales.
- Techniques for using modern information systems to improve financial decisions.
- Methods for meeting the day-to-day challenges of financial management, from procurement to labor negotiations.

Course Content.....40:00

Unit 1: the Local Government Setting
- The Finance Function in Local
- Government Fiscal Structure in the
- Federal System Public School Finance
- Local Government Expenditures and Revenues

Unit 2: Management Tools
- Forecasting Local Revenues and Expenditures
- Cost-benefit Analysis and the Capital Budget
- Budgeting
- Financial Accounting, Reporting, and Auditing
- Enterprise Resource Planning Systems

Unit 3: Revenue Sources
- The Property Tax
- General Sales, Income, and Other Non-property
- Taxes User Charges and Special Districts

Unit 4: Financial Management
- Economic Development

FIRE MANAGEMENT 2B COURSE OUTLINE

- Debt
- Management
- Procurement
- Cash and Investment
- Management Risk Management
- Public Employee Pension
- Funds Unions and Collective
- Bargaining

Unit 5: Contemporary Issues Relating to Fire Service Financial Management Instructor-developed Summative Test

Fire Management 2C: Personnel and Labor Relations (2009)

Hours: 40
Designed For: Chief Officers, Company Officers, Staff Officers, and other Fire Service Managers
Description: This course is designed to provide a fire manager with knowledge and insight of personnel, human resource, diversity management, legal mandates, labor relations, and related areas. Topics include areas of organizational development, productivity, recruitment and selection, performance systems, discipline, and collective bargaining. Methodology will include, but not be limited to, presentations, case studies, group exercises, focused discussions, and written assignments.
Prerequisites: Fire Management 1
Certification: Chief Officer
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Fire Officer's Desk Reference (Optional)	2006	JB
▪ Managing Human Resources: Productivity, Quality of Work Life, Profits	Seventh	MH
▪ The Fire Chief's Handbook	Sixth	PW
REQUIRED INSTRUCTOR MATERIALS		
▪ Applications in Human Resource Management (Optional)	2007	SWC
▪ Chief Fire Officer's Desk Reference (Optional)	2006	J
▪ Instructor-developed Summative Test	Current	Instructor
▪ Managing Human Resources: Productivity, Quality of Work Life, Profits	Seventh	MH
▪ The Fire Chief's Handbook	Sixth	PW
▪ The Fire Chief's Handbook Study Guide (Optional)	Sixth	PW

VENDOR		
JB	Jones and Bartlett Publishers (800-832-0034 x2)	http://www.jblearning.com/
MH	McGraw Hill Higher Education	catalogs.mhhe.com/mhhe/home.do
PW	PennWell Books/Fire Engineering (800-752-9764)	http://www.pennwellbooks.com/
SWC	South Western College Pub	

FIRE MANAGEMENT 2C COURSE OUTLINE

Course Objectives: To provide the student with…

- Techniques to make the transition from supervisor to manager.
- Information on the significant, competitive, legal and social issues that affect productivity, quality of life, and organizational success.
- Information on major legislation that impacts personnel, such as the Civil Rights Act, Equal Pay Act, Occupational Safety and Health Act.
- Information on employment tools needed to manage human resources effectively, including job analysis and design, human resource planning, and employee development.
- Information on current compensation and motivation practices used by organizations to improve employee performance and productivity.

Course Content 40:00

Unit 1: Environment
- Human Resources in a Globally Competitive Business Environment
- The Financial Impact of Human Resource Management Activities
- The Legal Context of Employment Decisions
- Diversity at Work

Unit 2: Employment
- Analyzing Work and Planning for People
- Recruiting
- Staffing

Unit 3: Development
- Workplace Training
- Performance Management

Managing Careers
Unit 4: Compensation
Pay and Incentive Systems
Indirect Compensation: Employee Benefit Plans
Unit 5: Labor-management Accommodation
Union Representation and Collective Bargaining
Procedural Justice and Ethics in Employee Relations
Unit 6: Support and International Implications
Safety, Health, and Employee Assistance Programs
International Dimensions of Human Resource Management
Unit 7: Contemporary Issues Relating to Personnel and Labor Relations Instructor-developed Summative Test

Fire Management 2D: Strategic Planning (2009)

Hours: 40

Designed For: Chief Officers, Company Officers, Fire Service Managers, and City Managers/County Administrative Officers and Planners

Description: Designed to educate Chief Officers on the strategic planning process and why each of the steps is critical for success. Although the process may be thought of as extremely complicated, this course will provide advice and tools to assist in the strategic planning process. This course is intended to be consistent with critical elements of the accreditation process and its associated self-assessment manual.

Prerequisites: Fire Management 1

Certification: Chief Officer

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Fire Officer's Desk Reference (Optional)	2006	JB
▪ Fire Department Strategic Planning: Creating Future Excellence	Second	PW
▪ The Fire Chief's Handbook	Sixth	PW
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Fire Officer's Desk Reference (Optional)	2006	JB
▪ Fire Department Strategic Planning: Creating Future Excellence	Second	PW
▪ Instructor-developed Summative Test	Current	Instructor
▪ The Fire Chief's Handbook	Sixth	PW
▪ The Fire Chief's Handbook Study Guide (Optional)	Sixth	PW

VENDOR		
JB	Jones and Bartlett Publishers (800-832-0034 x2)	http://www.jblearning.com/
PW	PennWell Books/Fire Engineering (800-752-9764)	http://www.pennwellbooks.com/

FIRE MANAGEMENT 2D COURSE OUTLINE

Course Objectives: To provide the student with…

- Techniques to make the transition from supervisor to manager.
- Concepts that form the foundation of strategic planning.
- Information on escaping from the typical operational thinking, to begin strategic thinking, and ultimately to manage organizations strategically
- The strategic planning process and why each step is critical if the plan is to succeed.
- Methods to simply the strategic planning process.

Course Content.....40:00

Unit 1: Strategic Planning

Introduction/Overview of Strategic Planning Revisiting Your Existing Strategic Plan
Speed Planning for the Time Challenged Proactive Futurist
Strategic Planning and the Commission on Fire Accreditation International
Planning To Plan Strategically
Understanding and Applying the Values of the Department
The Value of Vision to Organizational Change
Identifying the Department's Mandates
Developing the Mission of the Department
Understanding and Defining the Philosophy of Operations
Assessing the Challenges and Opportunities of the External Environment
Assessing the Weaknesses and Strengths of the Internal Environment
Identifying the Strategic Issues of the Department
Creating Strategies for Strategic Issues
Creating the Department's Ideal Future Through Proactive Futuring
Operational Planning from a Strategic Perspective
Strategic Management and Master Planning
Cyclic Planning

Unit 2: Contemporary Issues Relating to Strategic Planning Instructor-developed Summative Test

Fire Management 2E: Ethics and the Challenge of Leadership (2009)

Hours: 40
Designed For: Chief Officers, Company Officers, Staff Officers, and other Fire Service Managers
Description: In this course, the participant will correlate personal core values and characteristics to ethical decisions and behaviors. In addition, the participant will explore ethical and principle-centered leadership, including ethical systems, ethical dilemmas, and ethical decision-making models. The participant will also examine challenges and develop strategies for leading in public safety organizations serving diverse and dynamic communities. The participant will use a variety of learning modalities including case studies, video analyses, and critical thinking scenarios to explore ethics and the challenges of leadership.
Prerequisites: None
Certification: Chief Officer
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Chief Fire Officer's Desk Reference (Optional)	2006	JB
Leadership Development Studies	Fourth	PT
Making Ethical Decisions	2002	JI
▪ The Fire Chief's Handbook	Sixth	PW
▪ The Leader of the Future 2: Visions, Strategies, and Practices for the New Era	2006	J-
REQUIRED INSTRUCTOR MATERIALS		
▪ Chief Fire Officer's Desk Reference (Optional)	2006	J
▪ Instructor-developed Summative Test	Current	Instructor
Leadership Development Studies	Fourth	PT
Making Ethical Decisions	2002	JI
▪ The Fire Chief's Handbook	Sixth	PW
▪ The Fire Chief's Handbook Study Guide (Optional)	Sixth	PW
▪ The Leader of the Future 2: Visions, Strategies, and Practices for the New Era	2006	J-

VENDOR		
JB	Jones and Bartlett Publishers (800-832-0034 x2)	www.jbpub.com
J-B	Jossey-Bass	www.josseybass.com
JIE	Josephson Institute of Ethics	www.josephsoninstitute.org
PTK	Phi Theta Kappa	http://leadership.ptk.org/
PW	PennWell Books/Fire Engineering (800-752-9764)	www.pennwellbooks.com/fire.html

FIRE MANAGEMENT 2E COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on correlating personal core values and characteristics to ethical decisions and behaviors.
- Ethical dilemmas and appropriate models for making effective ethical decisions.
- Information to define and discuss principle-centered leadership.
- Information to recognize the risks and rewards of ethical and principle-centered decision-making.
- Information to justify the importance of service as a foundational aspect of leadership.
- Information to recognize the challenges of leading in a dynamic and diverse community.
- Strategies for leading in a challenging environment.
- Information on how leaders contribute to the establishment of a high trust organizational culture.
- A personal leadership development plan.
- A method to evaluate leadership responsibility as it relates to ethics, values, and challenges within the public safety environment.

Course Content.....40:00

Unit 1: Course Introduction/Reflection

Overview of Course, Description and Course Objectives
Introductions (Facilitated Activity)
Course Components
Reflections on Previous Course Work and Journal Work

FIRE MANAGEMENT 2E COURSE OUTLINE

Unit 2: Ethics
- What are Ethics, Morality, Leadership and More?
- Personal Values/Ethical Behavior
- Why Be Ethical and the Advantages/Disadvantages?
- Why Study Ethics?
- Video Case Study: *Cider House Rules*

Unit 3: Ethical Systems
- Thinking Ethically: A Framework for Moral Decision Making
- Ethics Awareness Inventory
- Video Case Study: *Miss Ever's Boys* – Part One

Unit 4: Ethics and Decision Making
- Evolution of Ethical Decision-making: Kohlberg's Stages of Morality
- Ethical Choices: Kohlberg - Case Studies
- A Model for Making Moral Decisions – Scott Rae
- Video Case Study: *Miss Ever's Boys* – Part Two
- Ethical Models
- Public Safety Scenarios
- Video Case Study: *Miss Ever's Boys* – Part

Three Unit 5: Ethics and Principled Leadership
- Defining Leadership
- Leadership Principles: Colin Powell's Rules
- Principle Centered Leadership
- Video Clip: *FBI Academy: the Public Trust*
- Code of Ethics
- Video Case Study: *Crimson Tide*

Unit 6: Servant Leadership
- Understanding Servant Leadership
- Video Presentation: *Gandhi* or
- *Radio* Role Models and Servant
- Leadership

Unit 7: the Challenges of Leadership
- Whom to Choose
- Video Presentation: *Billy Budd*
- The Ethical Test
- Developing Strategies for Leading in the Future

Unit 8: Course Conclusion
- Personal Leadership Assessment Peer Review
- Leadership Shadow Presentations
- Community Leadership Involvement Presentations
- Leadership Program Self Assessment
- Leadership Development Plan Submission
- Instructor-developed Summative Test

Fire Service Supervision: Increasing Personal Effectiveness

Hours: 16

Designed For: Company Officers or other individuals responsible for supervising personnel or managing programs and projects

Description: This NFA hand-off course reviews basic skills and techniques that will assist the individual to improve personal effectiveness. Topics include managerial style and personal performance, time management, and personal professional development planning.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		NTIS
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		NTIS

VENDORS		
NTIS	National Technical Information Service (800-553-6847)	www.ntis.gov

FIRE SERVICE SUPERVISION: INCREASING PERSONAL EFFECTIVENESS COURSE OUTLINE

- None

Fire Service Supervision: Increasing Team Effectiveness

Hours: 16

Designed For: Company Officers or other individuals responsible for supervising personnel

Description: This NFA hand-off course is designed to meet the needs of fire service supervisors and program managers by focusing on improving the manager's skills in relating with others. Topics include motivating others, interpersonal communications, counseling, group dynamics, and conflict resolution.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		NTIS
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		NTIS

VENDORS		
NTIS	National Technical Information Service (800-553-6847)	www.ntis.gov

FIRE SERVICE SUPERVISION: INCREASING TEAM EFFECTIVENESS COURSE OUTLINE

- None

Volunteer Fire Service Management

Hours: 16

Designed For: Company Officers or other individuals responsible for supervising personnel or managing programs and projects

Description: This NFA hand-off course provides participants with an overview and introduction to managing within a volunteer service environment. Discussion includes topics of management principles and techniques, planning, organizing, controlling, problem solving, motivating, and much more.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		NTIS
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		NTIS

VENDORS		
NTIS	National Technical Information Service (800-553-6847)	www.ntis.gov

VOLUNTEER FIRE SERVICE MANAGEMENT COURSE OUTLINE

- None

Fire Mechanic 1: Fire Pumps and Accessories (2004)

Hours: 36
Designed For: Entry-level fire apparatus mechanics
Description: This course provides the fire apparatus mechanic with the skills necessary to maintain, overhaul, test, and troubleshoot fire pumps and accessories.
Prerequisites: None
Certification: Fire Mechanic I
Class Size: 40
Restrictions: This course is scheduled and taught by Fire Mechanic Academy staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		CFMA
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		CFMA

VENDOR		
CFMA	California Fire Mechanics Association (916-727-7019)	www.cafiremech.com

FIRE MECHANIC 1 COURSE OUTLINE

Course Objectives: To provide the student with…

- The principles and theories associated with the maintenance and operational pump testing required for fire apparatus and equipment.
- An opportunity to troubleshoot.
- An opportunity to receive specialized and on-the-job training.

Course Content 36:00
- Pump Identification 8:00
- Theory 8:00
- Demonstration and Lab 12:00
- Troubleshooting 6:00
- Testing 2:00

Fire Mechanic 2A: Fire Apparatus Electrical Systems (2004)

Hours: 36
Designed For: Advanced-level fire apparatus mechanics
Description: This course includes topics on the theory, operation, and maintenance of electrical systems currently being used in fire apparatus.
Prerequisites: Fire Mechanic 1
Certification: Fire Mechanic II
Class Size: 40
Restrictions: This course is scheduled and taught by Fire Mechanic Academy staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		CFMA
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		CFMA

VENDORS		
CFMA	California Fire Mechanics Association (916-727-7019)	www.cafiremech.com

FIRE MECHANIC 2A COURSE OUTLINE

Course Objectives: To provide the student with…

- Theory, operation, and maintenance information on electrical systems currently being used in ambulance and fire apparatus.
- The principles and theories associated with maintenance required for ambulance and fire apparatus and equipment.
- An opportunity to receive specialized and on-the-job training.

Course Content 36:00

Theory of Electron Flow, Principles of Current, Voltage, Resistance, Ohm's Law; Series, Parallel, Series/Parallel Circuits, Principles of Diodes and Transistors 12:00

Design and Construction, Ratings, Charging, Evaluation/Selection and Testing of Batteries 4:00

Design and Construction, Voltmeter, Ammeter, Ohmmeter, Application, Reading and Ratings of Meters 4:00

Design and Operation, Heavy Duty Ratings, Pulley and Belt Loop, Load Requirements And Diagnosis of Alternators 4:00

Design and Operation, Switches and Solenoids, Mounting, Heavy Duty Applications, And Diagnosis of Cranking Motors 4:00

Load Analysis, CCA Wiring, Fusing, Looming, Installation, and Repair Techniques Of Electrical Systems 4:00

Failure Analysis, Diagnostic Approaches, Computer Learn and Resets, Computer Wake-Up Memory and Instrumentation of Component Systems 2:00

Testing 2:00

Fire Mechanic 2B: Allison Transmissions (2004)

Hours: 36

Designed For: Advanced-level fire apparatus mechanics

Description: This course covers introduction, general construction, and application of Allison Transmission. Hands-on activities include complete tear down, subassembly tear down, hydraulics, power flows, and complete transmission rebuild. Troubleshooting and maintenance is covered also.

Prerequisites: Fire Mechanic 1

Certification: Fire Mechanic II

Class Size: 40

Restrictions: This course is scheduled and taught by Fire Mechanic Academy staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		CFMA
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		CFMA

VENDORS		
CFMA	California Fire Mechanics Association (916-727-7019)	www.cafiremech.com

FIRE MECHANIC 2B COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the application and general construction of the Allison transmission.
- Hands-on training in complete transmission teardown and rebuild, subassembly tear down, hydraulics, power flows, troubleshooting, parts, and maintenance procedures.
- The principles and theories associated with maintenance required for fire apparatus and equipment.
- An opportunity to receive specialized and on-the-job training...

Course Content 36:00

- Introduction and Application 2:00
- General Construction 2:00
- Transmission Teardown 2:00
- Torque Converter 4:00
- Subassembly Teardown 4:00
- Subassembly Transmission 4:00
- Power Flows 4:00
- Valve Body Teardown and Rebuild 4:00
- Hydraulics 6:00
- Complete Transmission Rebuild 2:00
- Maintenance, Troubleshooting, Parts, and Review 2:00

Fire Mechanic 3A: Ambulance Service and Maintenance (2004)

Hours: 36

Designed For: Advanced-level mechanics

Description: This course covers service and maintenance techniques used to maintain engines, drive train, steering suspension, brakes, chassis, oxygen system, suction system, and the air conditioning and heating systems of an ambulance.

Prerequisites: Fire Mechanic 1

Certification: Fire Mechanic III

Class Size: 40

Restrictions: This course is scheduled and taught by Fire Mechanic Academy staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		CFMA
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide		CFMA

VENDORS		
CFMA	California Fire Mechanics Association (916-727-7019)	www.cafiremech.com

FIRE MECHANIC 3A COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on the service and maintenance requirements for ambulances.
- The principles and theories of maintenance requirements for ambulances.
- An opportunity for on-the-job specialized and maintenance training.

Course Content 36:00
- Engine/Drive Train 8:00
- Steering/Suspension 4:00
- Chassis 4:00
- Brakes/Secondary Braking 8:00
- Heating/Air Conditioning 3:00
- Oxygen 2:00
- Suction 1:00
- Ventilation 2:00
- Decontamination/Biohazards 2:00
- Testing 2:00

Fire Mechanic 3B: Aerial Apparatus (2004)

Hours: 36
Designed For: Advanced-level fire apparatus mechanics
Description: This course covers physical principles of construction, testing, and preventative maintenance of aerial devices commonly found in the fire service.
Prerequisites: Fire Mechanic 1
Certification: Fire Mechanic III
Class Size: 40
Restrictions: This course is scheduled and taught by Fire Mechanic Academy staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual		CFMA
REQUIRED INSTRUCTOR MATERIALS	**EDITION**	**VENDORS**
▪ Instructor Guide		CFMA

VENDORS		
CFMA	California Fire Mechanics Association (916-727-7019)	www.cafiremech.com

FIRE MECHANIC 3B COURSE OUTLINE

Course Objectives: To provide the student with…

- The physical principles of construction, testing, and preventative maintenance of aerial devices commonly found in the fire service.
- The principles and theories associated with maintenance testing required for fire apparatus and equipment.
- An opportunity for on-the-job specialized and maintenance training.

Course Content 36:00
- Interlock Systems 4:00
- Nondestructive/Annual Testing 8:00
- Hydraulic Theory 8:00
- Design and Maintenance 8:00
- Chassis Inspection 6:00
- Testing 2:00

CFSTES

Course: Company Officer 2C: Fire Inspections and Investigations (2014)
Hours: 40 (see course plan for breakdown)
Designed For: Aspiring company officers
Description: This course provides information on conducting inspections, identifying hazards and addressing violations, performing a fire investigation to determine preliminary cause and securing the incident scene and preserving evidence.
Prerequisites: Meet the educational requirements for Fire Fighter II
Certification: Fire Officer (Level I and II)
Standard: Complete all activities and formative tests. Complete all summative tests with a minimum score of 80%.
Class Size: 32
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ The required textbook chosen by the instructor	--	--
▪ California Fire Inspector's Guide	Current	CFCA
REQUIRED INSTRUCTOR MATERIALS		
▪ Fire and Emergency Services Company Officer (ISBN: 0879392819)	4TH	IFSTA
OR Fire Officer: Principles and Practice (ISBN: 9781449600621)	2ND	JB
▪ California Fire Inspector's Guide	CURRENT	CFCA
▪ Online Instructor Resources	2013	SFT
▪ OPTIONAL – Fire Investigator: Principles and Practice to NFPA 921 and 1033 (ISBN: 9780763758516)	3RD	JB
▪ OPTIONAL – Fire Inspector: Principles and Practice (ISBN: 9780763749392)	2012	JB
▪ OPTIONAL – Introduction to Fire Origin and Cause (ISBN: 0879392525)	3RD	IFSTA
▪ OPTIONAL - Fire Inspection and Code Enforcement (ISBN: 9780879393489	7TH	FPP

VENDORS		
CFCA	California Fire Chiefs Association	
IFSTA	International Fire Service Training Association	https://shop.ifsta.org/
JB	Jones and Bartlett	http://www.jblearning.com/
FPP	Fire Protection Publications	
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/resources.php

COMPANY OFFICER 2C COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Officer Certification Process
- Topic 1-3: Definition of Duty

Unit 2: Fire and Life Safety Inspections

- Topic 2-1: Describing Fire Inspection Procedures
- Topic 2-2: Identifying Features that Prevent or Contribute to Fire Spread

Unit 3: Fire Investigation

- Topic 3-1: Securing Incident Scenes
- Topic 3-2: Determining the Origin and Cause

CFSTES

Course: Fire Inspector 1A: Duties and Administration (2010)
Hours: 24
Designed For: Entry level Inspector
Description: This course provides students with a basic knowledge of the roles and responsibilities of a Fire Inspector I including legal responsibilities and authority, codes and standards, the inspection process, confidentiality and privacy requirements, and ethical conduct, and administrative tasks including preparing inspection reports, recognizing the need for a permit or plan review, investigating common complaints, and participating in legal proceedings.
Prerequisites: None
Certification: Fire Inspector
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Class Size: 30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 978-1-60983-460-9)	2013	Various
▪ Fire Inspection and Code Enforcement (IFSTA, 7th edition, ISBN: 9780879393489) **Or** Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st ed., ISBN: 9780763749392)	----	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
▪ Ethical Practices Inventory	CURRENT	Williams Inst.
▪ Online Instructor Resources	2013	SFT

VENDORS		
O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
Williams Inst.	The Williams Institute	www.ethics-twi.org
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp1.php

FIRE INSPECTOR IA COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process

Unit 2: Roles and Responsibilities

- Topic 2-1: Definition of Duties
- Topic 2-2: Identifying Legal Responsibilities and Authority
- Topic 2-3: Identifying Codes and Standards

FIRE INSPECTOR IA COURSE CONTENT (cont'd)

- Topic 2-4: The Inspection Process
- Topic 2-5: Confidentiality and Privacy Requirements
- Topic 2-6: Ethical Conduct

Unit 3: Administration

- Topic 3-1: Preparing Inspection Reports
- Topic 3-2: Recognizing the Need for a Permit
- Topic 3-3: Recognizing the Need for Plan Review
- Topic 3-4: Investigating Common Complaints
- Topic 3-5: Participating in Legal Proceedings

CFSTES

Course: Fire Inspector 1B: Fire and Life Safety (2010)
Hours: 24
Designed For: Entry level Inspector
Description: This course provides students with a basic knowledge of fire and life safety aspects related to the roles and responsibilities of a Fire Inspector I including building construction, occupancy classifications, occupancy load, means of egress, hazardous conditions, fire growth potential, fire flow, and emergency planning and preparedness measures.
Prerequisites: Fire Inspector 1A: Duties and Administration
Certification: Fire Inspector
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Max. Class Size: 30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 978-1-60983-460-9)	2013	Various
▪ Fire Inspection and Code Enforcement (IFSTA, 7th edition, ISBN: 9780879393489) **Or** Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st ed., ISBN: 9780763749392)	----	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
▪ Ethical Practices Inventory	CURRENT	Williams Inst.
▪ Online Instructor Resources	2013	SFT

VENDORS		
O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
Williams Inst.	The Williams Institute	www.ethics-twi.org
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp1.php

FIRE INSPECTOR IB COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process

Unit 2: Building Construction

- Topic 2-1: Verifying Construction Type for an Addition or Remodel

Unit 3: Occupancy Classifications

- Topic 3-1: Identifying Occupancy Classifications for a Single-use Occupancy

FIRE INSPECTOR IB COURSE CONTENT (cont'd)

Unit 4: Occupancy Load

- Topic 4-1: Computing the Allowable Occupant Load of a Single-use Occupancy

Unit 5: Means of Egress

- Topic 5-1: Inspecting Means of Egress Elements

Unit 6: Hazardous Conditions and Fire Growth Potential

- Topic 6-1: Recognizing Hazardous Conditions
- Topic 6-2: Recognizing Hazardous Fire Growth Potential in a Building or Space

CFSTES

Course: Fire Inspector 1C: Field Inspection (2010)
Hours: 24
Designed For: Entry level Inspector
Description: This course provides students with a basic knowledge of field inspection roles and responsibilities of a Fire Inspector I including basic plan review, emergency access for an existing system, hazardous materials, and the operational readiness of fixed fire suppression systems, existing fire detection and alarm systems, and portable fire extinguishers.
Prerequisites: Fire Inspector 1B: Fire and Life Safety
Certification: Fire Inspector
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Max. Class Size: 30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 978-1-60983-460-9)	2013	Various
▪ Fire Inspection and Code Enforcement (IFSTA, 7th edition, ISBN: 9780879393489) **Or** Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st ed., ISBN: 9780763749392)	----	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
▪ Ethical Practices Inventory	CURRENT	Williams Inst.
▪ Online Instructor Resources	2013	SFT

VENDORS		
O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
Williams Inst.	The Williams Institute	www.ethics-twi.org
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp1.php

FIRE INSPECTOR IC COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process

Unit 2: Basic Plan Review

- Topic 2-1: Comparing Approved Plans and Existing Fire Protection Systems

Unit 3: Emergency Access for an Existing System

- Topic 3-1: Inspecting Emergency Access for an Existing System

FIRE INSPECTOR IC COURSE CONTENT (cont'd)

Unit 4: Operational Readiness of Fixed Fire Suppression Systems

- Topic 4-1: Determining the Operational Readiness of Fixed Fire Suppression Systems

Unit 5: Operational Readiness of Existing Fire Detection and Alarm Systems

- Topic 5-1: Determining the Operational Readiness of Existing Fire Detection and Alarm Systems

Unit 6: Operational Readiness of Portable Fire Extinguishers

- Topic 6-1: Determining the Operational Readiness of Portable Fire Extinguishers

Unit 7: Hazardous Materials

- Topic 7-1: Classification and Properties
- Topic 7-2: Verifying Code Compliance for Incidental Storage, Handling, and Use of Flammable and Combustible Liquids and Gases
- Topic 7-3: Verifying Code Compliance for Incidental Storage, Handling, and Use of Hazardous Materials

CFSTES

Course: Fire Inspector 1D: Field Inspection – California Specific (2010)
Hours: 16
Designed For: Entry level Inspector
Description: This course provides students with a basic knowledge of a Fire Fighter I's field inspection roles and responsibilities specific to California including tents, canopies, and temporary membrane structures; fireworks and explosives; and wildland urban interface environments.
Prerequisites: Fire Inspector 1C: Field Inspection
Certification: Fire Inspector
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Max. Class Size: 30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 14 and Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
▪ California Public Resources Code 4290 and 4291 and Government Codes 51175 through 51189	--	CA Leg.
▪ NFPA 1123: Code for Fireworks Display (National Fire Protection Association, 2010 edition, ISBN: 1110000037363	NFPA 1123	Various
▪ NFPA 1126: Standard for the Use of Pyrotechnics Before a Proximate Audience (National Fire Protection Association, 2011 edition, ISBN: 9780685649626)	NFPA 1126	Various
▪ Laws and Regulations for Transportation, Use, and Storage of Fireworks in California	2011	OSFM
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 14 and Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
▪ California Public Resources Code 4290 and 4291 and Government Codes 51175 through 51189	--	CA Leg.
▪ NFPA 1123: Code for Fireworks Display (National Fire Protection Association, 2010 edition, ISBN: 1110000037363	NFPA 1123	Various
▪ NFPA 1126: Standard for the Use of Pyrotechnics Before a Proximate Audience (National Fire Protection Association, 2011 edition, ISBN: 9780685649626)	NFPA 1126	Various
▪ Laws and Regulations for Transportation, Use, and Storage of Fireworks in California	2011	OSFM
▪ Online Instructor Resources – Wildland Hazard & Building Codes	--	CAL FIRE
▪ Online Instructor Resources - Activities	CURRENT	SFT
VENDORS		

O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
CA Leg.	State of California	http://leginfo.legislature.ca.gov/faces/codes.xhtml
OSFM	Office of State Fire Marshal	http://osfm.fire.ca.gov/strucfireengineer/pdf/fireworks/FireworksHandbook2011.pdf
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp1.php
CAL FIRE	Wildland Hazard & Building Codes	http://calfire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php

FIRE INSPECTOR ID COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process

Unit 2: Tents, Canopies, and Temporary Membrane Structures

- Topic 2-1: Inspecting Tents, Canopies, and Temporary Membrane Structures

Unit 3: Fireworks and Explosives

- Topic 3-1: Inspecting Safe and Sane Fireworks Retail Stands
- Topic 3-2: Inspecting Public Fireworks Displays
- Topic 3-3: Inspecting Proximate Fireworks Displays

Unit 4: Wildland Urban Interface

- Topic 4-1: Inspecting Exterior Hazard Abatement on an Existing Property

CFSTES

Course: Fire Inspector 2A: Fire Prevention Administration (2010)
Hours: 16
Designed For: The certified Fire Inspector I advancing to the Fire Inspector II classification
Description: This course provides students with a basic knowledge of the administrative requirements related to the roles and responsibilities of a Fire Inspector II including processing permit and plan review applications, enforcing permit regulations, investigating complex complaints, recommending modifications to codes and standards, recommending policies and procedures for inspection services, generating written appeals correspondence, initiating legal action, evaluating inspection reports, and proposing technical reference material acquisition.
Prerequisites: Fire Inspector 1A, 1B, 1C, and 1D **OR** Fire Prevention 1A, 1B, and 1C
Certification: Fire Inspector II
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Max. Class Size: 30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
▪ Fire Inspection and Code Enforcement (IFSTA, 7th edition, ISBN: 9780879393489	7TH EDITION	Various
OR Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, ISBN: 9780763749392	1ST EDITION	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
Reference Manual Options		
▪ Fire Inspection and Code Enforcement Instructor Resource Kit (IFSTA, 7th edition, ISBN: 9780879393557	7TH EDITION	Various
Or a combination of the following:		
▪ Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, Jones & Bartlett Learning, ISBN: 9780763749392)	1ST EDITION	J&B
• Fire Inspector: Principles and Practice Instructor's ToolKit CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798598)	CDR	J&B
▪ Fire Inspector: Principles and Practice Instructor's Test Bank CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798581)	CDR	J&B
▪ Online Instructor Resources - Activities	CURRENT	SFT

VENDORS		
O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
J&B	Jones & Bartlett Learning	http://www.jblearning.com/
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp2.php

FIRE INSPECTOR 2A COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process
- Topic 1-3: Definition of Duties

Unit 2: Processing Permit & Plan Review Applications

- Topic 2-1: Processing Permit Applications
- Topic 2-2: Enforcing Permit Regulations
- Topic 2-3: Processing Plan Review Applications

Unit 3: Complex Complaints

- Topic 3-1: Investigating Complex Complaints

Unit 4: Modification of Codes and Standards

- Topic 4-1: Recommending Modifications to Codes and Standards

Unit 5: Policies, Procedures, & Processes for Inspection Services

- Topic 5-1: Recommending Policies and Procedures for Inspection Services
- Topic 5-2: Generating Written Appeals Correspondence
- Topic 5-3: Initiating Legal Action
- Topic 5-4: Evaluating Inspections Reports

Unit 6: Technical Reference Material Acquisition

- Topic 6-1: Proposing Technical Reference Material Acquisition

CFSTES

Course: Fire Inspector 2B: Fire and Life Safety Requirements (2010)
Hours: 24
Designed For: The certified Fire Inspector I advancing to the Fire Inspector II classification
Description: This course provides students with a basic knowledge of fire and life safety requirements related to the roles and responsibilities of a Fire Inspector II including occupancy classification, egress elements, emergency plans and procedures, occupant loads, building construction and fire growth potential
Prerequisites: Fire Inspector 2A: Fire Prevention Administration
Certification: Fire Inspector II
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Max. Class Size: 30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
▪ Fire Inspection and Code Enforcement (IFSTA, 7th edition, ISBN: 9780879393489	7TH EDITION	Various
OR Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, ISBN: 9780763749392	1ST EDITION	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
Reference Manual Options		
▪ Fire Inspection and Code Enforcement Instructor Resource Kit (IFSTA, 7th edition, ISBN: 9780879393557	7TH EDITION	Various
Or a combination of the following:		
▪ Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, Jones & Bartlett Learning, ISBN: 9780763749392)	1ST EDITION	J&B
• Fire Inspector: Principles and Practice Instructor's ToolKit CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798598)	CDR	J&B
▪ Fire Inspector: Principles and Practice Instructor's Test Bank CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798581)	CDR	J&B
▪ Online Instructor Resources - Activities	CURRENT	SFT

VENDORS		
O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
J&B	Jones & Bartlett Learning	http://www.jblearning.com/
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp2.php

FIRE INSPECTOR 2B COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process

Unit 2: Occupancy Classification

- Topic 2-1: Classifying the Occupancy of a Building
- Topic 2-2: Classifying Occupancy in a Mixed-Use Building

Unit 3: Egress Elements

- Topic 3-1: Verifying Means of Egress Elements
- Topic 3-2: Analyzing Egress Elements
- Topic 3-3: Proposing Correction for Egress Deficiencies

Unit 4: Emergency Plans and Procedures

- Topic 4-1: Recommending Criteria for Developing Emergency Plans and Procedures
- Topic 4-2: Evaluating Emergency Planning and Preparedness Procedures

Unit 5: Occupant Loads

- Topic 5-1: Computing Maximum Allowable Occupancy Loads
- Topic 5-2: Computing the Maximum Occupant Load of a Multi-Use Building
- Topic 5-3: Assessing Alternative Methods to Adjust Occupant Loads

Unit 6: Building Construction

- Topic 6-1: Verifying Building Construction and Construction Type
- Topic 6-2: Evaluating Construction Type of an Addition or Remodel

Unit 7: Fire Growth Potential

- Topic 7-1: Determining Fire Growth Potential

CFSTES

Course: Fire Inspector 2C: Inspecting New and Existing Fire & Life Safety Systems and Equipment (2010)
Hours: 16
Designed For: The certified Fire Inspector I advancing to the Fire Inspector II classification
Description: This course provides students with a basic knowledge of inspection requirements related to the roles and responsibilities of a Fire Inspector II including inspection of life safety systems and building services equipment, fire protection systems, and emergency access criteria.
Prerequisites: Fire Inspector 2A: Fire Prevention Administration
Certification: Fire Inspector II
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Max. Class Size: 30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
Reference Manual Options:		
▪ Fire Inspection and Code Enforcement (IFSTA, 7th edition, ISBN: 9780879393489 **OR:**	7TH EDITION	Various
▪ Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, ISBN: 9780763749392	1ST EDITION	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
Reference Manual Options		
▪ Fire Inspection and Code Enforcement Instructor Resource Kit (IFSTA, 7th edition, ISBN: 9780879393557	7TH EDITION	Various
Or a combination of the following:		
▪ Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, Jones & Bartlett Learning, ISBN: 9780763749392)	1ST EDITION	J&B
• Fire Inspector: Principles and Practice Instructor's ToolKit CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798598)	CDR	J&B
▪ Fire Inspector: Principles and Practice Instructor's Test Bank CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798581)	CDR	J&B
▪ Online Instructor Resources - Activities	CURRENT	SFT

VENDORS		
O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
J&B	Jones & Bartlett Learning	http://www.jblearning.com/
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp2.php

FIRE INSPECTOR 2C COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process

Unit 2: Life Safety Systems and Building Services Equipment

- Topic 2-1: Evaluating Fire, Life Safety, and Property Protection Equipment
- Topic 2-2: Verifying Code Compliance of Building Service Equipment and Operations
- Topic 2-3: Verifying Installation, Inspection, and Testing of Life Safety Systems and Building Services Equipment
- Topic 2-4: Evaluating Compliance of Life Safety Systems and Building Services Equipment with Construction Documents

Unit 3: Fire Protection Systems

- Topic 3-1: Reviewing Proposed Installation of Fire Protection Systems
- Topic 3-2: Reviewing Installed Fire Protection Systems
- Topic 3-3: Witnessing an Acceptance Test for an Integrated Fire Protection System

Unit 4: Emergency Access Criteria

- Topic 4-1: Developing Emergency Access Criteria

CFSTES

Course: Fire Inspector 2D: Hazardous Materials, Operations, and Processes (2010)
Hours: 32
Designed For: The certified Fire Inspector I advancing to the Fire Inspector II classification
Description: This course provides students with a basic knowledge of hazardous materials, operations, and processes related to the roles and responsibilities of a Fire Inspector II including hazardous conditions, flammable and combustible liquids and gases, and hazardous materials.
Prerequisites: Fire Inspector 2A: Fire Prevention Administration
Certification: Fire Inspector II
Standard: Complete all summative tests with a minimum score of 80%.
Complete all activities and formative tests.
Max. Class Size: 30
Inst./Stud. Ratio 1:30
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
Reference Manual Options:		
▪ Fire Inspection and Code Enforcement (IFSTA, 7th edition, ISBN: 9780879393489 **OR:**	7TH EDITION	Various
▪ Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, ISBN: 9780763749392	1ST EDITION	Various
REQUIRED INSTRUCTOR MATERIALS		
▪ California Building Code (International Code Council, 2013 edition, ISBN: 9781609834579)	2013	Various
▪ California Code of Regulations (CCR) Title 19	CURRENT	O.A.L.
▪ California Fire Code (with Title 19 excerpts) (International Code Council, 2013 edition, ISBN: 9781609834609)	CURRENT	Various
Reference Manual Options		
▪ Fire Inspection and Code Enforcement Instructor Resource Kit (IFSTA, 7th edition, ISBN: 9780879393557	7TH EDITION	Various
Or a combination of the following:		
▪ Fire Inspector: Principles and Practice (International Association of Fire Chiefs, 1st edition, Jones & Bartlett Learning, ISBN: 9780763749392)	1ST EDITION	J&B
• Fire Inspector: Principles and Practice Instructor's ToolKit CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798598)	CDR	J&B
▪ Fire Inspector: Principles and Practice Instructor's Test Bank CD-ROM (International Association of Fire Chiefs, Cdr edition, Jones & Bartlett Learning, ISBN: 9780763798581)	CDR	J&B
▪ Online Instructor Resources - Activities	CURRENT	SFT

VENDORS		
O.A.L.	Office of Administrative Law	www.oal.ca.gov/publications.htm
J&B	Jones & Bartlett Learning	http://www.jblearning.com/
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Insp2.php

FIRE INSPECTOR 2D COURSE CONTENT

Unit 1: Introduction

- Topic 1-1: Orientation and Administration
- Topic 1-2: Fire Marshal Certification Process

Unit 2: Hazardous Conditions

- Topic 2-1: Evaluating Hazardous Conditions Involving Equipment, Processes, and Operations
- Topic 2-2: Evaluating Alternative Protection Measures for Equipment, Operations, and Processes
- Topic 2-3: Evaluating Fire Protection Plans and Practices

Unit 3: Flammable and Combustible Liquids and Gases

- Topic 3-1: Verifying Code Compliance for Storage, Handling, and Use of Flammable and Combustible Liquids and Gases
- Topic 3-2: Evaluating Compliance Alternatives for the Storage, Handling, and Use of Flammable or Combustible Liquids and Gases

Unit 4: Hazardous Materials

- Topic 4-1: Verifying Code Compliance for the Storage, Handling, and Use of Hazardous Materials
- Topic 4-2: Evaluating Compliance Alternatives for the Storage, Handling, and Use of Hazardous Materials

CFSTES

Course: Fire Prevention 1: Fire and Life Safety Inspections for the Company Officer (2011)
Hours: 32 (27:00 lecture, 3:00 activities, 1:30 testing)
Designed For: The entry-level Company Officer
Description: Upon completion of this course, the student will have a basic knowledge of the Company Officer certification track and Capstone Task Book process. The student will also be equipped with knowledge and skills related to the Company Officer's role in fire prevention, the relationship between life safety and building construction, the elements of a quality company inspection program, and how to address complex hazards encountered during an inspection.
Prerequisites: None
Certification: Company Officer
Standard: Complete all summative tests with a minimum score of 80%.
Class Size: 40
Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ California Fire Inspection Guide	Current	CFCA
▪ Fire Prevention Applications for the Company Officer (ISBN 978-0-87939-384-7)	First	FPP
REQUIRED INSTRUCTOR MATERIALS		
▪ California Fire Inspection Guide	Current	CFCA
▪ Fire Prevention Applications for the Company Officer (ISBN 978-0-87939-384-7)	First	FPP
▪ Online Instructor Resources	2013	SFT

VENDORS		
CFCA	California Fire Chiefs Association	www.calchiefs.org
FPP	Fire Protection Publications (800-654-4055)	www.ifsta.org
SFT	Online Instructor Resources	http://osfm.fire.ca.gov/training/Course.PRV1.php

PREVENTION 1 COURSE OUTLINE

Unit 1: Introduction
- Topic 1-1: Orientation and Administration
- Topic 1-2: Company Officer Certification Process

Unit 2: The Company Officer's Role in Fire Prevention
- Topic 2-1: Relationship Between Historic and Current Fire Problems
- Topic 2-2: National Fire Incident Reporting System
- Topic 2-3: Community Risk Analysis
- Topic 2-4: Basic Elements of Fire and Life Safety Education and Public Relations
- Topic 2-5: Using The *California Fire Inspector's Guide*
- Topic 2-6: Authority and Responsibility for Company Inspections and Related Activities

Unit 3: Relationship Between Life Safety and Building Construction
- Topic 3-1: Occupancy Classifications and Related Hazards
- Topic 3-2: Building Construction Types and Fire Behavior
- Topic 3-3: Developing a Pre-Incident Plan

Unit 4: Elements of a Company Inspection Program
- Topic 4-1: Importance of Conducting a Fire Inspection
- Topic 4-2: Code Enforcement and Appeal Process
- Topic 4-3: Construction Features that Affect Fire, Heat, and Smoke Spread in a Building

PREVENTION 1 COURSE OUTLINE (cont'd)

- Topic 4-4: Fire Inspection Records, Reports, and Forms
- Topic 4-5: Conducting a Company Fire Inspection
- Topic 4-6: Inspecting the Exterior of a Structure
- Topic 4-7: Inspecting the Interior of a Structure
- Topic 4-8: Inspecting Fire Alarm Detection and Notification Systems
- Topic 4-9: Inspecting Fire Protection Systems and Equipment
- Topic 4-10: Inspection Follow-up Procedures
- Topic 4-11: Standby Life Safety Duty

Unit 5: Complex Hazards

- Topic 5-1: Inspecting Complex Hazards and Fire Safety Requirements
- Topic 5-2: Hazardous Materials
- Topic 5-3: Inspections in the Wildland Urban Interface Environment

Fire Prevention 3A: Hydraulic Sprinkler Calculations (1995)

Hours: 40

Designed For: Fire prevention officials and plan checkers

Description: This course offers an explanation and analysis of the functions and capabilities of a hydraulically calculated sprinkler system. Participants will learn and practice with the various methods used to perform hydraulic calculations.

Prerequisites: Fire Inspector 1A, 1B, 1C, and 1D **OR** Fire Prevention 1A and 1B
High School Algebra or College Math

Certification: Plans Examiner

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	Current *	Instructor
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	Current *	Instructor
▪ Instructor-developed Summative Test	Current *	Instructor

Instructor must develop until documents are available

VENDORS	
SFT	State Fire Training Bookstore (916-445-8158)

FIRE PREVENTION 3A COURSE OUTLINE

Course Objectives: To provide the student with…

- Information and analysis of the functions and capabilities of a hydraulically calculated sprinkler system.

To identify Course Content..... 40:00

Concepts of Hydraulics In Fire Protection Systems
Glossary of Terms and Definitions
System Piping and Fittings
Water Supply
Classification of Occupancies
Allowable Head Coverage
Most Remote Area
K Factor
Minimum and Head Pressure and Flow
Friction Loss
Hydraulic Calculation
Trees, Loops and Grids
Advanced Concepts
Instructor-developed Summative Test

Fire Prevention 3B: Plan Review (1994)

Hours: 40

Designed For: Fire prevention officials and allied professionals responsible for plan review

Description: This course provides hands-on training. Topics include codes, standards and local amendments, site-plan review, building construction and characteristics, fire protection equipment, multi-family occupancies, commercial buildings, care facilities, drinking/dining facilities, shopping malls, and high-rise buildings.

Prerequisites: Fire Inspector 2A, 2B, 2C, and 2D **OR** Fire Prevention 2B

Certification: Plans Examiner

Class Size: 40

Restrictions: None

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	Curren*	Instructor
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	Current *	Instructor
▪ Instructor-developed Summative Test	Current *	Instructor

Instructor must develop until new documents are available

VENDORS	
SFT	State Fire Training Bookstore (916-445-8158)

FIRE PREVENTION 3B COURSE OUTLINE

Course Objectives: To provide the student with…

- Hands-on training for Plan Reviewers.
- Information on codes, standards, and local amendments.
- Information on site plan review, building construction, and fire protection equipment.
- Information on plan review for various occupancy classifications.

To identify Course Content 40:00

Introduction To Plans and Plans Review
Use of Check Sheets, Plans, Rules, Other Tools and Equipment
Components of A Plan
Site Plan Review
Location of Buildings
Accessibility
Water Supply
Terrain
Plan Check Guides
Plan Review of Group B Occupancy
Plan Review of Group I Occupancy
Full Plan Check of Day Care Center
Plan Correction Techniques Instructor-developed Summative Test

Fireworks Enforcement/Special Effects

Hours:
Designed For:
Description:
Prerequisites: None
Certification: None
Class Size: 40
Restrictions: This course is scheduled and taught by SFM Fire Engineering staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		

REQUIRED INSTRUCTOR MATERIALS	EDITION	VENDORS
▪ None		

CONTACT		
OSFM/FE	OSFM/Fire Engineering (916-445-8373)	http://osfm.fire.ca.gov/strucfireengineer/strucfireengineer_fireworks.php

FIREWORKS ENFORCEMENT/SPECIAL EFFECTS COURSE OUTLINE
▪ None

Motion Picture/Television Fire Safety Officer

Hours: 24

Designed For: Fire personnel, special effects technicians, film production safety and stunt coordinators, line producers, location managers, and film commissioners

Description: This course provides a basic knowledge of film production safety. Topics include: Filming and fire code permits, licensing, the role of the safety officer, fire safety hazards associated with lighting generators, electrical cabling, set construction, studio vs. warehouse filming, pyrotechnic special effects law and regulations, and stunt safety. This course incorporates pyrotechnic special effects and stunt demonstrations. Guest speakers are also a part of the program.

Prerequisites: None

Certification: None

Class Size: 40

Restrictions: This course is scheduled and taught by OSFM Fire Engineering staff only.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ None		
REQUIRED INSTRUCTOR MATERIALS		
▪ None		

CONTACT	
OSFM/FE	OSFM/Fire Engineering (916-445-8373) http://osfm.fire.ca.gov/strucfireengineer/strucfireengineer_fireworks.php

MOTION PICTURE/TELEVISION FIRE SAFETY OFFICER COURSE OUTLINE

- None

Public Education 1: Systematic Planning and Communication Skills (1989)

Hours: 40

Designed For: Designed for personnel involved with preparing and delivering public education and information programs

Description: Key topics include: Systematic planning process for public education, use of CFIRS to analyze local fire problems, communication skills, program evaluation, working with the media, integrating programs into schools, gaining community support, fire safety for children, interviewing and counseling juvenile fire setters, creating and using audio/visual resources, and idea and resource sharing.

Prerequisites: None

Certification: Public Education Officer I

Class Size: 40

Restrictions: Instructor-designed course may be substituted. A course outline and a copy of the student materials you will be using must be submitted and approved by State Fire Training.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	1989	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Created Summative Exam	Current	Instructor
▪ Instructor Guide	1989	SFT

VENDORS		
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

PUBLIC EDUCATION 1 COURSE OUTLINE

Course Objectives: To provide the student with…

- The five step systematic planning process.
- An opportunity to improve communication skills through practice and oral presentations.
- Information to effectively use the available media in their geographic areas.
- Information to select, develop, organize, and use appropriate materials for fire prevention education.
- Information relative to individual value system development and interpersonal relationships.

Course Content 40:00
- Introduction 1:30
- The Need for Public Education 1:00
- Introduction to Communication 0:30
- Oral Communication 1:30
- An Overview of Audio/Visual Materials 0:30
- Written Communication 0:30
- Student Presentations 23:00
- Public Education Planning – a Five Step Process 3:00
- Fire Behavior 1:30
- Fire Extinguishers 1:00
- Residential Fire Sprinklers 0:45
- Smoke Detectors 0:45
- Human Behavior in Fire 3:30
- Course Review and Summative Exam 1:00

Confined Space Rescue Technician (2008)

Hours: 40

Designed For: All emergency personnel with confined spaces within their jurisdiction

Description: This course is an intensive hands-on training program that will prepare you to respond to confined space emergencies. This course of instruction prepare the student in identifying confined spaces and permit-required confined spaces, the hazards associated with permit required confined spaces, target industries and hazards, state and federal regulations, components of a rescue operation, and the roles and responsibilities of the rescue team.

Prerequisites: Confined Space Rescue Awareness

Certification: None

Class Size: Student/instructor ratio: 12:1
36 student maximum: Three-squad site with 3 Primary Instructors and 1 Senior Instructor
24 student maximum: Two-squad site with 2 Primary Instructors and 1 Senior Instructor*
12 student maximum: One-squad site with 1 Primary Instructors and 1 Senior Instructor*
*For one- or two-squad sites, the Senior Instructor may also function as a Primary Instructor

Restrictions: This course can only be delivered at an accredited SFT Rescue Training site.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	2007	CMC
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Guide	2008	SFT
▪ Student Manual	2007	CMC

VENDORS		
CMC	CMC Rescue (800-235-5741)	www.cmcrescue.com
SFT	State Fire Training Online Bookstore	http://osfm.fire.ca.gov/training.php

CONFINED SPACE RESCUE TECHNICIAN COURSE OUTLINE

Course Objectives: To provide the student with…

- Information on regulations and standards for entry into confined spaces
- Information to identify confined spaces and permit-required confined spaces
- Information to identify the hazards associated with confined spaces
- Techniques to perform confined space rescue on incidents involving terrorism or weapons of mass destruction
- Information and techniques to select and use atmospheric monitoring equipment and the equipment necessary to control hazards in confined spaces
- Information and techniques to identify, select, and use personal protective equipment
- Information and techniques to use various types of victim removal and packaging systems
- Information and techniques to construct rope rescue systems for confined space rescue
- The information necessary to plan, organize, operate, and command at confined space rescue incidents
- The opportunity to apply the principles of confined space rescue through directed rescue scenarios

Course Content..... 40:00

Orientation Module

- Course Introduction 0:15
- Confined Space Identification 1:30
- CAL-OSHA Regulations..... 1:00
- Federal Regulation-CFR 1910. 146 ..... 0:00
- Confined Space Hazards 1:30
- Atmospheric Monitoring 1:00
- Hazard Control..... 1:00
- Personal Protective Equipment 0:45
- Phases of Confined Space Rescue 0:30
- Rescue Rope and Related Equipment..... 1:00
- High Point Anchor Systems 0:30
- Communications 0:30
- Permitting Confined Spaces 0:30

CONFINED SPACE RESCUE TECHNICIAN COURSE OUTLINE

Skills Module

- Knots 1:30
- Anchor Systems 0:50
- RPM 1:15
- Belay Systems. 0:30
- Raising Systems 1:15
- Rescuer and Victim Packaging 2:00
- Respiratory Protection 1:00
- Communication Systems 1:00
- Hazard Control 1:10
- Atmospheric Monitoring 1:00
- High Point Anchor Systems 2:30
- Scenarios 16:00

CONFINED SPACE RESCUE TECHNICIAN ACCREDITED TRAINING SITE REQUIREMENTS

An accredited Confined Space Rescue Technician (CSRT) Training Site has facilities, structures, work areas, materials, props, tools, and equipment of adequate size, type, and quantity to fully and safely support the cognitive and psychomotor training required to deliver the CSRT curriculum.

SITE CAPACITY

A CSRT Training Site is evaluated on its ability to deliver the required training to a maximum of 36 students. Each capacity level represents the maximum number of students or squads that may be taught on the site at any given time. This maximum number will be determined based on the suitability of the site to safely train between 12 and 36 students.

One-squad Site

- Supports the instruction for teaching the maximum of one (1) squad or twelve (12) students
- One (1) CSRT Primary Instructor is required for a student instructor ratio of 12:1
- One (1) CSRT Senior Instructor is required
  - For one-squad sites, the Senior Instructor may also function as the Primary Instructor

Two-squad Site

- Supports the instruction for teaching the maximum of two (2) squads or twenty-four (24) students.
- One (1) CSRT Primary Instructor
- One (1) CSRT Senior Instructor are required for a student instructor ratio of 12:1
  - For two-squad sites, the Senior Instructor may also function as a Primary Instructor

Three-squad Site

- Supports the instruction for teaching the maximum of three (3) squads or thirty-six (36) students.
- Three (3) CSRT Primary Instructors are required for a student instructor ratio of 12:1.
- One (1) CSRT Senior Instructor is required.

MINIMUM SITE REQUIREMENTS

The accredited CSRT Training Site assumes all responsibility, liability, and maintenance for the engineering design, strength, stability, and adequacy of all props, including anchor points and tie offs. The requesting agency further assumes all responsibility, liability, and maintenance for all tools, equipment, and supplies used at the site for the delivery of a CSRT class. This includes, but is not limited to, ladders, ropes, rescue hardware and software.

Facilities

- Classroom of adequate size and capability (including audiovisual equipment) to support classroom cognitive training.
- Wash areas.
- Bathrooms.
- Rehabilitation area.
- Safe and adequate parking.

Training Props

Aboveground Tank

- Aboveground tank (minimum 8 feet high) with a vertical (top) entry through a portal of 18" to 30" and a horizontal (side) entry through a portal of 18" to 30".

Underground Vault

- While belowground vaults are preferred, it will be acceptable to place vaults at ground level and provide platforms to simulate ground level for placing tripods or other equipment on.
- Vertical drop from the entry point must be greater than 5 feet.

Tapered Cross Section

- An internal configuration of inwardly converging walls or a floor that slopes downward and tapers to a smaller cross section.
- Entry may be vertical or horizontal, but must be above the section that tapers downward.

Horizontal Pipe

- Below grade or aboveground pipes between 18" and 36" in diameter.
- A minimum of 25 feet of continuous pipe shall be provided with at least one 45-degree or 90-degree bend.

Lock-out/Tag-out

- One or more of the above listed spaces shall include a lock-out/tag-out prop as part of the evolution.

Permit-required Confined Spaces

- Minimum training prop requirements can be fulfilled by using actual permit-required confined spaces or representative spaces.

Opening Size

- One portal of entry on any of the above props shall be less than 24".
- Opening size is determined by measuring the shorter side of the opening.

EQUIPMENT STANDARDS

The following is the minimum equipment required to deliver a CSRT course. As the class size increases, the amount of equipment must increase. Refer to ENDNOTES for additional information.

Confined Space Rescue Technician Equipment Standards	Up to 12 Students One scenario at a time	Each additional scenario run concurrently
Generator with fuel can	1	See Endnote A
Extension cord	1	See Endnote B
Atmospheric monitor	1 - See Endnote C	1 - See Endnote C
Ventilation fan with duct	1	1
Saddle vent with 90 degree elbow	1	N/A
SCBA	2	See Endnote D
Supplied air manifold	1	See Endnote E
Airline	200' - See Endnote F	See Endnote F
Supplied air respirator with escape cylinder	2	See Endnote G
Victim respirator	1 - See Endnote H	N/A
Breathing air	See Endnote I	See Endnote I
Hardline communication system	1 - See Endnote J	N/A
Portable radio	2	N/A
Commercially available tripod	1 - See Endnote K	See Endnote L
Commercially available cable winch	1	See Endnote M
Commercially available 4:1 pre-rig	1	N/A
SKED stretcher or equivalent	1	N/A
Backboard	1	N/A
LSP half-back or equivalent	1	N/A
Spreader bar	1	N/A
Basket stretcher	1	N/A
Wristlets	1 set	N/A
Class III harness	2	2
Entrant light source	2	2
Personal alert device	2	N/A
Edge protection	1 - See Endnote N	See Endnote N
Pulley (one or more must be prusik-minding)	6	2
Double sheave pulley	2	N/A
Friction device (i.e., brake bar rack, figure eight descender)	1	N/A
½" static kernmantle rope with rope bag, 150 feet (min.)	3 - See Endnote O	3 - See Endnote O
8mm prusik loop, short, 57"	5	5
8mm prusik loop, long, 70"	5	5
1" tubular webbing, 5' – green	10	10
1" tubular webbing, 12' – blue	10	10
1" tubular webbing, 15' – yellow	10	10
1" tubular webbing, 20' – orange	10	10
Carabiners, large steel locking	20	20
Fire service ground ladder	2	N/A
Mask cleaning materials	See Endnote P	N/A
Clipboard	1	1
Sample entry permit forms for each scenario	1	1
Lock-out/Tag-out kit	1	N/A

ENDNOTES

A. One (1) generator is required for each scenario. If there is a readily available power supply, an additional generator would not be needed.

B. As needed to supply power to necessary equipment.

C. A minimum of one (1) atmospheric monitor is required for each scenario. Four (4) gas monitors are recommended, but separate monitors that detect O_2 levels, flammable gases, and toxic gases that would be expected in the spaces to be entered would suffice. One (1) monitor should have a pump and extension hose for pre-entry assessment. A second monitor can be a diffusion type for the entry team.

D. Students can be required to supply their own.

E. Two scenario course - One (1) supplied air manifold and two (2) SCBAs.

Three scenario course – Two (2) supplied air manifolds and two (2) SCBAs.

F. 200 feet is the minimum. Additional airlines of sufficient length for the entry team and back-up team may be required for additional scenarios.

G. None needed if SCBAs are used for the second or third scenario.

H. This can be a supplied air system, emergency escape breathing apparatus (EEBA) or an SCBA.

I. Enough Grade "D" Breathing Air must be available to run the required scenarios. This can be supplied by a compressor with back-up cylinders or by having enough air cylinders and/or a refill capability.

J. The hardline communication system should accommodate the attendant and entrants.

K. The tripod shall have a minimum breaking strength of 5,000 pounds to meet OSHA requirements. To better prepare the students for what they may encounter in the field, as many different high point anchors as possible should be available.

L. If the second scenario is a vertical entry, a second high point anchor is required. A ladder system, a second tripod or davit, or other anchor point will work. If the second scenario is a horizontal entry, nothing is required.

M. A rope retrieval system can be used for a second vertical entry.

N. More may be required as situations warrant.

O. Other lengths may be required by the scenarios. Low stretch kernmantle is also acceptable in place of static kernmantle.

P. Mask cleaning materials must comply with Cal-OSHA GISO Section 5144.

SITE ACCREDITATION PROCESS

CSRT Training Sites will be inspected for compliance with the CSRT Training Site Minimum Site Requirements and Equipment Standards. A CSRT Training Site representative submits to the Chief of State Fire Training a written request for accreditation as a Conditional or Permanent CSRT Training Site. This request shall include:

- A detailed description of the site that lists the facilities, structures, work areas, materials, props, tools, and equipment available and ready for delivering a CSRT course.
- A CSRT Site Evaluation Form completed by a registered CSRT Senior Instructor.

State Fire Training staff, authorized representative, and/or a registered CSRT Senior Instructor who is not affiliated with the site will conduct an inspection of the CSRT Training Site while operating under the direction of the Chief of State Fire Training.

Any discrepancies or deficiencies will be documented and discussed with the site representative at the time of the inspection. Once all discrepancies and deficiencies (if any) have been completed, validated, and verified by State Fire Training staff or authorized representative, the Chief of State Fire Training will notify the CSRT representative of their status as either an approved conditional or permanent site.

Rescue Systems 1: Basic Rescue Skills (2009)

Hours: 40

Designed For: All emergency response personnel

Description: Key topics include: Team organization, rescue, and environmental considerations, use of ropes, knots rigging and pulley systems, descending, rappelling, and belaying tools and techniques, subsurface rescue techniques, use of cribbing, wedges, cutting/prying and hydraulic tools, use of fire service ladders in specialized rescue situations, and day and night simulated rescue exercises.

Prerequisites: Fire Fighter I or equivalent training, Low Angle Rope Rescue Operational

Certification: Under development

Class Size: Student/instructor ratio: 12:1
48 student maximum: Four-module site with 4 Primary Instructors and 1 Senior Instructor
36 student maximum: Three-module site with 3 Primary Instructors and 1 Senior Instructor
24 student maximum: Two-module site with 2 Primary Instructors
12 student maximum: One-module site with 1 Primary Instructor

Restrictions: This course can only be delivered at an accredited SFT Rescue Training site.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	2009	SFT Website
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Materials on disk (PowerPoint Slides included)	2009	SF
▪ Student Manual	2009	SFT Website

VENDORS		
SFT	State Fire Training	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

RESCUE SYSTEMS 1 COURSE SYLLABUS

Course Objectives: To provide the student with…
- Techniques to operate safely when working around the structural collapse of light frame buildings
- Information on the potential hazards associated with rescue operations
- An opportunity to build on skills acquired in Low Angle Rope Rescue Operational training
- Information and techniques for lifting and moving heavy objects
- Information and techniques to break or breach building components to access a victim(s)
- Information and techniques to shore and stabilize building components

Course Content 40:00

Topic 1-1: Introduction To the California Urban Search and Rescue System 1:00

Terminal Learning Objective (TLO): The student will be familiar with the requirements for the California Urban Search and Rescue (US&R) Basic and Light Operational Levels. The manipulative portion of the course concentrates on techniques to operate safely and effectively at structural collapse incidents involving the collapse or failure of light frame construction and basic rope rescue situations. The course uses the most innovative and progressive procedures being employed today, while maximizing rescue operation efficiency with minimal equipment and personnel. The Urban Search and Rescue Operational System Description includes; four different levels of operational capability, training, and equipment. Additional urban search and rescue multidisciplinary resources are also identified. The document uses the Incident Command System (ICS) to apply common terminology and resource management practices to provide supervision and control of essential functions at incidents that involve technically demanding rescue operations.

Enabling Learning Objectives (ELO):
1. Describe the history and objectives of the Rescue Systems 1 course.
2. Describe the California Urban Search and Rescue System.
3. Describe the relevant components of the ICS-US&R 120-1 Operational System.
4. Identify the five general construction categories.

Topic 1-2: Rescue Operations 1:00

Terminal Learning Objective (TLO): The student will be familiar with a structural collapse incident that presents the rescuer with a multitude of hazards and problems and uses the four phases of structural collapse rescue. Hazards can come from the structure itself, the surrounding area, and unsafe procedures used by the rescue team. Rescuer safety must be a priority stressed before, during, and after the incident by all personnel at the incident.

RESCUE SYSTEMS 1 COURSE SYLLABUS

Enabling Learning Objectives (ELO):

1. Describe the four phases of structural collapse rescue.
2. Describe the checklist for the management of a structural collapse incident.
3. Describe US&R search.
4. Describe the search marking system.

Topic 1-3: US&R Safety and Medical Care for Victims 1:00

Terminal Learning Objective (TLO): The student will be familiar with a structural collapse incident that can cause multiple victim injuries in a variety of ways and locations. Using some basic medical care and safety procedures during the rescue operations will greatly assist in providing the most victims with best possible chance for recovery.

Enabling Learning Objectives (ELO):

1. Describe the general hazards of a structural collapse.
2. Describe four general types of building construction hazards.
3. Describe four types of collapse patterns.
4. Describe the necessary personal protective equipment to use during an incident.
5. Identify the safety and medical considerations to take during an incident.
6. Describe the injuries associated with a structural collapse.
7. Describe basic infectious disease precautions to take during an incident.

Topic 1-4: US&R Planning and Preparation 1:00

Terminal Learning Objective (TLO): The student will be familiar with structural collapse incident organization and management. If an effective system to direct and control the large volume of personnel, equipment, and arriving resources is not in place, the person in charge will be overwhelmed. The order in which specific functions and tasks are performed will be vital to the effectiveness of mitigating the search and rescue structural collapse incident. Planning is probably the single most important function for an effective response to structural collapse incidents. Proper planning will identify the legal authority and responsibility for specific actions, develop a vulnerability and hazard assessment, and identify resources, response coordination, training, and budgetary needs.

Enabling Learning Objectives (ELO):

1. Describe the legal authority and responsibility for US&R.
2. Describe the development of a vulnerability and hazard assessment.
3. Identify resources for a US&R incident.
4. Describe effective response coordination.
5. Describe the training needed for local resources.
6. Describe budgetary needs during a US&R incident.
7. Describe the ICS, SEMS, and NIMS as they relate to a US&R incident.
8. Describe the communications necessary for a US&R incident.
9. Describe scene control.
10. Describe federal and state resources.

Topic 2-1: Rescue Knots and Hitches 0:45

Terminal Learning Objective: The student will be able to identify and properly tie all rescue knots and hitches.

Enabling Learning Objectives:

1. Demonstrate learned knowledge, skills, and abilities from prerequisite Low Angle Rope Rescue Operational (LARRO) course.
2. Demonstrate how to tie the six required knots.
3. Demonstrate how to tie the four Rescue Systems 1 required knots.

Topic 2-2: Anchor Systems 0:45

Terminal Learning Objective (TLO): The student will be aware of anchor selection and anchor system construction required for Rescue Systems 1 skills.

Enabling Learning Objectives (ELO):

1. Describe considerations when selecting anchors.
2. Describe the types of anchors.
3. Demonstrate how to form a single loop, double loop, locking girth hitch (Lark's foot).
4. Demonstrate how to form a single and double loop basket sling (three bight).
5. Demonstrate how to form a single and multi-loop anchor sling.
6. Demonstrate how to form a wrap three pull two anchor sling.
7. Demonstrate sling anchor attachments: pretied.
8. Demonstrate single sling anchor attachments: open.

RESCUE SYSTEMS 1 COURSE SYLLABUS

Topic 2-3: Rescuer and Ambulatory Victim Packaging 0:30

Terminal Learning Objective (TLO): The student will be aware of how to properly package rescuers and victims to safely and effectively complete a rope rescue operation.

Enabling Learning Objectives (ELO):

1. Describe rescue harnesses and rescuer packaging.
2. Demonstrate how to don a Class III harness.
3. Demonstrate how to package a victim in a commercial victim harness.
4. Demonstrate how to package a victim in a hasty pelvic harness.

Topic 2-4: System Attachments and Fall Restraint 0:30

Terminal Learning Objective (TLO): The student will be aware of several methods of system attachments for rescuers and victims.

Enabling Learning Objectives (ELO):

1. Describe system attachments.
2. Demonstrate how to attach a rescuer to a rope rescue system.
3. Demonstrate how to attach an ambulatory victim to a rope rescue system.
4. Demonstrate how to attach a rescue litter vertically to a rope rescue system.
5. Demonstrate how to attach a rescue litter horizontally to a rope rescue system.
6. Demonstrate how to tend a rescue litter.
7. Demonstrate how to attach a rescuer to a fall restraint system.

Topic 2-5: Belay/Safety Line Systems 0:30

Terminal Learning Objective (TLO): The student will be aware of the importance of using a backup line to catch the load in the event of a failure of the main line.

Enabling Learning Objectives (ELO):

1. Define key points regarding the operation of a belay/safety line system.
2. Demonstrate belay/safety line configurations.
3. Demonstrate lowering operations—basic configuration.
4. Demonstrate retrieval operations—basic configuration.
5. Describe system variations.

Topic 2-6: Rappelling / Descending 0:30

Terminal Learning Objective (TLO): The student will be able construct and operate rope rescue descending systems.

Enabling Learning Objectives (ELO):

1. Describe descending techniques.
2. Demonstrate how to construct a fixed line for a rappelling
3. Demonstrate how to reeve a figure eight descender and brake bar rack.
4. Demonstrate a rappel and lock-off using a figure eight descender and brake bar rack.
5. Demonstrate a rappel using a figure eight descender and brake bar rack with a high and low anchor point.

Topic 2-7: Lower and Raise Main Line Systems 0:30

Terminal Learning Objective (TLO): The student will be able to demonstrate how to raise and lower Main Line Systems

Enabling Learning Objectives (ELO):

1. Describe rope rescue lowering and raising systems.
2. Demonstrate how to operate a lowering system.
3. Demonstrate how to convert a lowering system to a raising system with a 3:1 and a 5:1 inline— RPM.
4. Demonstrate how to convert a lowering system to a raising system with a 3:1 or 5:1 inline with directional pulley.
5. Demonstrate how to construct a 3:1 and 5:1 mechanical advantage (MA) system.
6. Demonstrate how to construct a 3:1 and 5:1 pig rig.
7. Demonstrate how to convert a lowering system to a raising system with a 3:1 and 5:1 pig rig.

Topic 3-1: Introduction to Lifting and Moving Heavy Objects 4:00

Terminal Learning Objective (TLO): The student will be familiar with the unit objectives in order to develop the proper size-up, techniques, and safety considerations when attempting to lift, roll, or move heavy objects. Heavy objects are unforgiving and cause severe, permanent injuries or death when performed incorrectly.

Enabling Learning Objectives (ELO):

1. Describe tool types, capabilities, and safety considerations when lifting heavy objects.
2. Describe three different types of jacks, their operating principles, and safety precautions.
3. Describe the appropriate personal protective equipment, safety, and medical precautions.
4. Describe rescue team positions.

5. Describe determining the weight of structural components.
6. Describe moving heavy objects.
7. Demonstrate raising, stabilizing, rotating, and lowering a single heavy object.
8. Demonstrate raising, stabilizing, moving, and lowering multiple heavy objects.
9. Demonstrate raising, stabilizing, moving, and lowering multiple heavy objects while safely managing and extricating a victim from under the objects.

Topic 4-1: Introduction to Breaking and Breaching 4:00

Terminal Learning Objective (TLO): The student will be familiar with a structural collapse incident that requires breaking and breaching operations to gain access, remove debris, or release an entrapped victim. Breaking and breaching operations discussed in this course will focus on light-frame construction materials, such as wood and light-gauge metals, unreinforced masonry such as brick veneer, and reinforced masonry such as a cinder block wall.

Enabling Learning Objectives (ELO):

1. Describe tool types, capabilities, and safety considerations when breaking and breaching.
2. Describe light-frame structure design and construction materials.
3. Describe the appropriate personal protective equipment, safety medical precautions.
4. Describe breaking and breaching operations including shape and size of breaching openings.
5. Describe breaking and breaching operations in other general construction categories.

Topic 5-1: Ladder Rescue Systems 8:00

Terminal Learning Objective (TLO): The student will be familiar with the skills and techniques to move patients from a low place to a high place, a high place to a low place, or across uneven terrain. Rescuers will use fire service ladders and rope rescue equipment to build systems to accomplish this transport quickly and safely.

Enabling Learning Objectives (ELO):

1. Describe the components and operational functions of the seven ladder systems.
   - Moving ladder slide
   - Ladder slide
   - Exterior leaning ladder
   - Interior leaning ladder
   - Cantilever ladder
   - Ladder gin
   - Ladder "A" frame
2. Describe the components and operational functions of the mechanical advantage system used in a ladder rescue system.

Topic 6-1: Introduction to Structure Shoring Systems 2:00

Terminal Learning Objective (TLO): The student will be familiar with the skills and techniques to stabilize compromised light-frame structures and safely operate around them.

Enabling Learning Objectives (ELO):

1. Describe the techniques to mitigate structure collapse hazards.
2. Describe the steps involved during shoring size-up.
3. Describe different shoring size-up considerations.
4. Describe the proper placement of shoring components.
5. Describe the positions, roles, and responsibilities of the Shoring Team.
6. Describe the different types of shoring systems.

Topic 6-2: Introduction to Basic Tools and Equipment for Emergency Shoring Operations 1:00

Terminal Learning Objective (TLO): The student will be familiar with basic tools and equipment needed to construct emergency shores.

Enabling Learning Objectives (ELO):

1. Describe the tools and equipment for emergency shoring operations, including design, use, limitations, and applications.
2. Describe the safety considerations related to shoring tools and equipment.

Topic 6-3: Introduction to the Timber Spot Shore (Class I) 2:00

Terminal Learning Objective (TLO): The student will be familiar with the skills and techniques required to construct timber spot shores.

Enabling Learning Objectives (ELO):

1. Describe the uses for timber spot shores.
2. Describe the components of timber spot shores.

RESCUE SYSTEMS 1 COURSE SYLLABUS

3. Describe the assembly procedures for timber spot shores.
4. Describe the proper placement of shoring components.
5. Describe the evaluation and safety check process for timber spot shores.

Topic 6-4: Introduction to the Two-post Vertical Shore (Class II) 2:00

Terminal Learning Objective (TLO): The student will be familiar with the skills and techniques required to construct a two-post vertical shore.

Enabling Learning Objectives (ELO):

1. Describe the uses for a two-post vertical shore.
2. Describe the components of a two-post vertical shore.
3. Describe the assembly procedures for a two-post vertical shore.
4. Describe the proper placement of shoring components.
5. Describe the evaluation and safety check process for a two-post vertical shore.

Topic 6-5: Introduction to the Horizontal Shore 2:00

Terminal Learning Objective (TLO): The student will be familiar with the skills and techniques required to construct horizontal shores.

Enabling Learning Objectives (ELO):

1. Describe the uses for horizontal shores.
2. Describe the components of horizontal shores.
3. Describe the assembly procedures for horizontal shores.
4. Describe the proper placement of shoring components.
5. Describe the evaluation and safety check process for horizontal shores.

Topic 6-6: Introduction to the Pre-constructed Window and Door Shore 2:00

Terminal Learning Objective (TLO): The student will be familiar with the skills and techniques required to construct window and door shores.

Enabling Learning Objectives (ELO):

1. Describe the uses for window and door shores.
2. Describe the components of window and door shores.
3. Describe the assembly procedures for window and door shores.
4. Describe the proper placement of shoring components.
5. Describe the evaluation and safety check process for window and door shores.

Topic 6-7: Introduction to the Sloped Surface Shore with Cribbing 2:00

Terminal Learning Objective (TLO): The student will be familiar with the skills and techniques for using cribbing in combination with a shoring system.

Enabling Learning Objectives (ELO):

1. Describe the need for shoring a sloped surface with cribbing.
2. Describe the components of a sloped surface shore with cribbing.
3. Describe the assembly procedures for cribbing a sloped surface.
4. Describe the evaluation and safety check process.

Topic 6-8: Introduction to the Split Sole Raker Shore System 2:00

Terminal Learning Objective (TLO): The student will be able to construct a split shore.

Enabling Learning Objectives (ELO):

1. Describe the uses for the split sole raker shore.
2. Describe the components of a raker shore system.
3. Describe the assembly procedure for a raker shore system.
4. Describe the proper placement of shoring components.
5. Describe the evaluation and safety check process for a raker shore system.

Topic 6-9: Introduction to the Cutting Station 1:00

Terminal Learning Objective (TLO): The student will be able to construct and safely operate a cutting station.

Enabling Learning Objectives (ELO):

1. Describe the uses for the cutting station.
2. Describe the design and components of the cutting station.
3. Describe the different applications for the cutting station.

RESCUE SYSTEMS 1 ACCREDITED TRAINING SITE REQUIREMENTS

An accredited Rescue Systems 1 (RS1) Training Site has facilities, structures, work areas, materials, props, tools, and equipment of adequate size, type, and quantity to fully and safely support the cognitive and psychomotor training required to deliver the RS1 curriculum.

SITE CAPACITY

A RS1 Training Site is evaluated on its ability to deliver the required training to a maximum of 48 students. Each capacity level represents the maximum number of modules that can be taught on the site at any given time. This maximum number will be determined based on the suitability of the site to safely train between 12 students in each of the individual modules. A site may be capable of delivering from one to four modules simultaneously.

Four Modules

- Rope Rescue
- Heavy Objects/Breaking and Breaching
- Ladder Rescue Systems
- Emergency Building Shores

One-module Site

- Supports the instruction for teaching the maximum of one (1) module at a time for twelve (12) students
- One (1) RS1 Primary Instructor is required for a student instructor ratio of 12:1

Two-module Site

- Supports the instruction for teaching the maximum of two (2) modules for twenty-four (24) students
- One (2) RS1 Primary Instructors are required for a student instructor ratio of 12:1

Three-module site

- Supports the instruction for teaching the maximum of three (3) modules for thirty-six (36) students
- Three (3) RS1 Primary Instructors are required for a student instructor ratio of 12:1
- One (1) RS1 Senior Instructor is required

Four-module site

- Supports the instruction for teaching the maximum of four (4) modules for forty-eight (48) students
- Four (4) RS1 Primary Instructors are required for a student instructor ratio of 12:1
- One (1) RS1 Senior Instructor is required

MINIMUM SITE REQUIREMENTS

The accredited RS1 Rescue Training Site assumes all responsibility, liability, and maintenance for the engineering design, strength, stability, and adequacy of all props, including anchor points and tie offs. The requesting agency further assumes all responsibility, liability, and maintenance for all tools, equipment, and supplies used at the site for the delivery of a RS1 class. This includes, but is not limited to, ladders, ropes, rescue hardware, shoring, and cribbing materials. The facilities and props for each module should be in close proximity to each other to facilitate timeframes.

Facilities

- Classroom of adequate size and capability (including audiovisual equipment) to support cognitive training
- Wash areas
- Bathrooms
- Rehabilitation area
- Safe and adequate parking

Rope Rescue Module

- Structure, 30' minimum height with working roof that is of sound and safe engineering design
- High and low anchor points to perform rope evolutions
- Area to demonstrate and practice skills learned in Low Angle Rope Rescue (rescue knots, rescue/victim packaging, and rope systems)
- Area to demonstrate and practice anchor systems

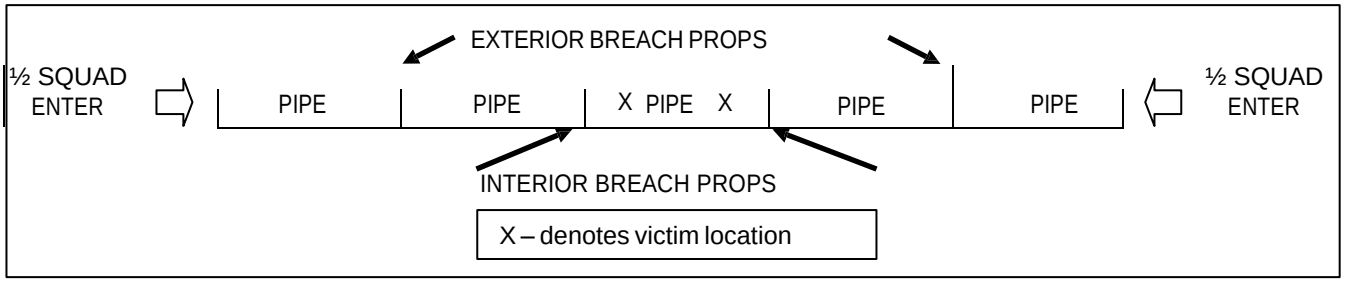
Heavy Objects/Breaking and Breaching Module

Heavy Objects

- Three (3) 20'x20' concrete or asphalt pads with a 10' diameter buffer area at grade level (may be contiguous)
- Four (4) 3'x3'x3' concrete cubes
- Four (4) 5'x8'x12" concrete reinforced slabs (6,000 pounds each)

Breaking and Breaching

- Working area at grade level, 20' long x 20' wide
  - Concrete, asphalt, or unimproved ground
  - Length of work area is dependent on the length of the pipe-shaped props
- Five (5) pipe-shaped props placed end to end allowing for breaching props to be placed between them
  - Concrete, metal, or wood
  - 36"-48" diameter x 6'-10' long



- Two (2) exterior wall breaching props
  - One side with 4'x4'x½" Wonder board over 4'x4' stucco lathing over 4'x4'x¾" plywood nailed with 8d nails 6" on center to a 2"x4" frame with wood studs 16" on center nailed with 16d nails
    - ⊠ The other side sheeted with 4'x4'x½" drywall
  - Each prop shall include a span of electrical wire / conduit to simulate an obstacle
- Two (2) interior wall breaching props
  - One (1) with 4'x4'x½" drywall fastened with 1 ¼" drywall screws 6" on center to a 2"x4" frame with metal studs 16" on center
    - ⊠ The other side sheeted with another 4'x4'x½" drywall
  - Prop shall include a span of electrical wire / conduit to simulate an obstacle
  - One (1) with 4'x4'x½" drywall fastened with 1 ¼" drywall screws 6" on center to a 2"x4" frame with 2"x4" wood studs 16" on center nailed with 16d nails
    - ⊠ The other side sheeted with another 4'x4'x½" drywall
  - Prop shall include a span of electrical wire / conduit to simulate an obstacle.

Ladder Rescue Systems Module

- 20' structure adequate for simultaneous operations of ladder systems that is of sound and safe engineering design
- Side openings to accommodate simultaneous operations of ladder systems
- High and low anchor points appropriately placed for use with each operation
- Open field area to accommodate simultaneous operations, ladder "A" frame, ladder gin, and pickets
- Area to lower a student one story through an opening using an interior leaning ladder
  - An 8' minimum height is required

Emergency Building Shores Module

- Structure(s) adequate for simultaneous operations of interior and exterior shoring systems that is of sound and safe engineering design
  - Area large enough to accommodate lumber supply (near cutting station)

Interior Shores

- Working area: 16'x16' minimum with 8' ceiling
- Timber spot shores
  - Area with simulated or actual joist(s) to set two (2) timber spot shores
- Two post vertical shore
  - Area with simulated or actual joist(s) to set one (1) two (2) post vertical shore
- Two post horizontal shore
  - An opening 3' to 8' wide and 8' minimum in height
- Window and door shores
  - Window opening: 2'x2' minimum to 4'x4' maximum
  - Door opening: 2'6"x6'8" minimum to 4'x7' maximum

Sloped Surface Shore (Cribbing)
- 8'x8' working area minimum
- Configured so that the crib bed of a sloped floor shore is no greater than 3' in height when constructed
- 3' elevation within a 10' distance maximum slope (30 percent / 15 degree slope)

Raker Shores
- One (1) wall/area 14' high x 12' wide
- Working area: 16' away from building and 12' wide

Cutting Station
- Minimum of 6" off the ground
- 16'x16' working area

EQUIPMENT STANDARDS

Student safety is of paramount importance when conducting the type of high-risk training associated with the RS1 course. The equipment listed below is the minimum for each accredited RS1 Training Site. The equipment is in compliance with or exceeds the standards listed in NFPA 1983, Standard on Fire Service Life Safety Rope, Harness, and Hardware. Student safety is of paramount importance when conducting the type of high-risk training associated with the RS1 course. All PPE shall be the responsibility of the student and shall meet agency and site requirements. Lumber list does not include lumber required to construct props.

Rescue Systems 1 Equipment Standards	Description	Ropes	Ladders	Heavy Objects	Breaking & Breaching	Shoring	Total 4 Modules
CONSUMABLES							
Common nails	8d				5 lbs.	5 lbs.	10 lbs.
Common nails	16d				5 lbs.	5 lbs.	10 lbs.
Drywall	4'x8'x½"				3		12
Duplex nails	8d				5 lbs.	20 lbs.	25 lbs.
Duplex nails	16d				5 lbs.	40 lbs.	45 lbs.
Gasoline and bar oil						1	1
Metal Studs	2"x4"x8'				2		8
Plywood	4'x8'x¾"				1		4
Stucco K-Lath / wire mesh	4'x4'				2		8
Wonder Board	3'x5'x½"				2		8
NONCONSUMABLES							
Anchor plate		3	1				4
Brake bar rack		3	1				4
Carabiner (General Use)		25	25				25
Commercial Class III harness	Small	1	1				2
Commercial Class III harness	Medium	1	1				2
Commercial Class III harness	Large	1	1				2
Commercial Class III harness	Extra large	1	1				2
Commercial Victim Pelvic Harness		1	1				2
Commercial Victim Chest Harness		1	1				2
Cribbing	4"x4"x24"					24	24
Cribbing	4"x4"x18"			100			100
Cribbing	4"x4"x9"			25			25
Cribbing	2"x4"x9"			25			25
Cribbing/Cleat	2"x4"x24"					12	12
Cribbing/cleat	2"x4"x18"			50			50
Edge protector		1	1				2
Edge roller		2	1				3
Figure eight descender		3	1				4
Gibbs ascender		1	2				3
Gusset plate	12"x12"x¾"					44	44
Gusset plate	6"x12"x¾"					12	12
Ladder	14'		1				1
Ladder	24'		1				1
Load Releasing Strap		4	1				5
Lifeline (Low stretch or static)	½"x150'	3	3				6
Lumber	4"x4"x8'					16	16
Lumber	4"x4"x10'					2	2
Lumber	4"x4"x12'					3	3
Lumber	4"x4"x14'					2	2

Rescue Systems 1 Equipment Standards	Description	Ropes	Ladders	Heavy Objects	Breaking & Breaching	Shoring	Total 4 Modules
Lumber	4"x4"x16'					2	2
Lumber	2"x4"x8'					18	18
Lumber	2"x4"x12'					2	2
Lumber	2"x6"x8'					7	7
Lumber	2"x4"x10'					2	2
Lumber	1"x6"x8'					4	4
Lumber	2"x6"x10'					6	6
Lumber	2"x6"x12'					9	9
Picket, steel	1"x4'		10		2	12	24
Plywood	4'x8'x¾"					1	1
Prusik loop	Short	3	3				6
Prusik loop	Long	4	4				8
Prusik minding pulley		3	3				6
Pulley (round or PMP)	2" or 4"	3	3				6
Rescue litter		1	1				2
Rescue litter pre-rig with prusiks		1	1				2
Tie rope	10'	12					12
Webbing, blue tubular	1"x15'	15	10				25
Webbing, green tubular	1"x5'	15	10				25
Webbing, orange tubular	1"x20'	15	10				25
Webbing, yellow tubular	1"x12'	15	10				25
Wedge pairs	2"x4"x12"					12	12
Wedge pairs	4"x4"x18"			10		6	16
TOOLS							
Axe, flat head					2		2
Axe, pick head					1		1
Bolt cutter					2		2
Carpenter pencils						12	12
Cold chisel	1"x7-7/8"				2		2
Chain saw					2	2	2
Crow bar	3'			4	1	8	13
Framing hammer					1	12	13
Framing square with tables						2	2
Hacksaw, heavy duty					2		2
Hand saw, crosscut					2	2	4
Hydraulic jack	5 ton (min.)			1			1
Lumber marker					2	12	14
Measuring tape					2	12	14
Pinch point pry bar	60"			6	1		7
Pipe	2"x4'			8			8
Shovel, round point			1		1		2
Shovel, square point					1		1
Single jack hammer	3 – 4 lb.				2	4	6
Sledge hammer	8 – 10 lb.		1		1		2
Speed square						12	12
Tool pouch						12	12
Circular saw kit - 10 ¼" (OPTIONAL)	40 tooth spare carbide tip – blade replacement wrench					1	1

SITE DEVIATION

In the event that a training site has a facility, structure, or prop that does not comply with the RS1 minimum site requirements and equipment standards, the site has the opportunity to apply for a site deviation. A RS1 Senior Instructor or designee submits to the Chief of State Fire Training a formal letter requesting site deviation. This letter must describe the site deviation in detail by listing:

- The need and parameters of the deviation.
- New or revised lesson plans linked to the deviation that ensures consistency with the standards and behavioral objectives of the approved RS1 curriculum.
- Demonstration, either live or through visual aids, of any deviated technique or procedure.

The Chief of State Fire Training will review the request for site deviation. Any deficiencies will be appropriately documented and discussed with the RS1 Senior Instructor or designee requesting the site deviation. If site deviation is denied, a provisional accreditation may be granted at this time. If a site is not approved, they have three (3) months to comply with the site requirements identified as deficient in the inspection report.

SITE ACCREDITATION PROCESS

Rescue Systems 1 Training Sites will be inspected for compliance with the RS1 minimum site requirements and equipment standards. Sites may be accredited as one of the following:

- Full Accreditation
  - A permanent-use site that fully meets the RS1 minimum site requirements and equipment standards.
- Temporary Accreditation
  - A short-term use site that meets the RS1 minimum site requirements and equipment standards.
  - Typically, these sites are in areas where permanent sites are not practical or available.
  - Accreditation is granted for the purpose of delivering a set number of courses.
  - Once the training is complete, the temporary accreditation is rescinded.

Full Accreditation

A RS1 Training Site representative submits to the Chief of State Fire Training a formal letter requesting full accreditation for a permanent site. This letter must describe the site in detail by listing the facilities, structures, work areas, materials, props, tools, and equipment available and ready for delivering a RS1 course. State Fire Training staff and/or a registered RS1 Senior Instructor, operating under the direction of the Chief of State Fire Training, will conduct an inspection of the RS1 Training Site. Any discrepancies or deficiencies will be appropriately documented and discussed with the site representative at the time of the inspection. Copies of all inspection documents and notes will be kept on file. The Chief of State Fire Training will notify the RS1 Training Site of their status after the inspection.

Temporary Accreditation

A registered RS1 Senior Instructor or designee submits to the Chief of State Fire Training a formal letter requesting temporary accreditation for delivering a RS1 course. This letter must describe the site in detail by listing the facilities, structures, work areas, materials, props, tools, and equipment available and ready for delivering a RS1 course. Photographs of each required structure, work area, and prop must be included in the application package. A completed "Request for Rescue Systems Course Scheduling" providing the dates of the upcoming course and all instructors must be included in the application package. Temporary accreditation must be requested at least ninety (90) days before the beginning date of the course.

Appeals

Step 1

The RS1 Training Site representative must submit in writing to the Chief of State Fire Training all evidence to support reversing SFT's denial of site accreditation. After review of all submitted materials, the Chief of State Fire Training will notify the site representative in writing of the decision to uphold, modify, or withdraw the denial of accreditation.

Step 2

If the denial of accreditation is upheld, the site representative may appeal the findings to the Assistant State Fire Marshal. The RS1 Training Site representative must submit in writing all evidence to support reversing the decision of the Chief of Education and Training. After review of all submitted materials, the Assistant State Fire Marshal will notify the site representative in writing of the decision to uphold, modify, or withdraw the denial of accreditation.
The decision of the Assistant State Fire Marshal is final.

Rescue Systems 2: Advanced Rescue Skills (2009)

Hours: 40

Designed For: All fire service and allied emergency response personnel

Description: Provides advanced heavy rescue system techniques. Key topics include: Structural building types, wood and mechanical shores, crib capacities, floor weight calculations, building search, confined space considerations, damaged structure hazard assessment, use of power tools, air bags, and USAR ICS.

Prerequisites: I-200, Rescue Systems 1

Certification: Under development

Class Size: Student/instructor ratio: 12:1
48 student maximum: Four-module site with 4 Primary Instructors and 1 Senior Instructor
36 student maximum: Three-module site with 3 Primary Instructors and 1 Senior Instructor
24 student maximum: Two-module site with 2 Primary Instructors
12 student maximum: One-module site with 1 Primary Instructor

Restrictions: This course can only be delivered at an accredited SFT Rescue Training site.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Student Manual	2009	SFT Website
REQUIRED INSTRUCTOR MATERIALS		
▪ Instructor Materials on disk (PowerPoint Slides included)	2009	SFT
▪ Student Manual	2009	SFT Website

VENDORS		
SFT	State Fire Training	http://osfm.fire.ca.gov/training/downloadablesftmanuals.php

RESCUE SYSTEMS 2 COURSE SYLLABUS

Course Objectives: To provide the student with…

- Information to incorporate safety practices in all phases of the planning and implementation of a rescue operation
- Information to identify and mitigate potential hazards associated with rescue operations
- An opportunity to build on skills acquired in Rescue Systems 1 training
- Reconnaissance strategies and techniques for locating victims in a collapsed building
- Information on structural triage and collapse patterns of building structures
- Information and techniques to shore and stabilize building components
- Information and techniques to break or breach building components to access a victim(s)
- Techniques of metal burning systems
- Information and techniques for lifting and moving heavy objects

Course Hours. 40:00

Topic 1-1 Introduction and Introduction 1:00

Terminal Learning Objective (TLO): The student will be familiar with course administration and operational requirements for successful completion.

Enabling Learning Objectives (ELO):

1. Describe starting times and attendance requirements for successful completion of the course.
3. Describe the necessary paperwork to complete all administrative processes required for successful completion.
4. Describe the criteria for successful completion of the course.
5. Describe the student manual and its contents.

Topic 1-2 Safety..... 1:00

Terminal Learning Objective (TLO): The student will be familiar with the importance of including sound safety practices in all phases of the planning and rescue operations.

Enabling Learning Objectives (ELO):

1. Describe the importance of safety during all phases of a mission.
2. Describe the importance of recognizing and mitigating safety hazards.
3. Describe the importance of incorporating safety into rescue planning and briefing.
4. Describe and employ the concept of "LCES" (Lookouts, Communications, Escape routes, and Safe zones).
5. Perform a risk hazard analysis for a specific event and suggest actions to minimize risks and/or eliminate hazards.
6. Describe the issues related to personal and team security zones, as a planning tool.
7. Describe the importance of safety risk and hazard identification

RESCUE SYSTEMS 2 COURSE SYLLABUS

Topic 1-3 Survival 1:00

Terminal Learning Objective (TLO): The student will be familiar with the basic survival strategies during a large disaster if they should be isolated or separated from their support system.

Enabling Learning Objectives (ELO):

1. Describe the psychological importance of keeping a positive attitude.
2. Identify suitable and safe shelter.
3. Describe the importance of protective clothing and outerwear in disaster areas during inclement weather.
4. Identify potable water sources and how to construct a fire.
5. Describe when travel is necessary, how to orientate yourself to the environment, and how to build a signaling system.

Topic 1-4 Search Capabilities 1:00

Terminal Learning Objective (TLO): The student will be familiar with the reconnaissance strategies that should be employed to produce the best results for finding the most victims.

Enabling Learning Objectives (ELO):

1. Establish search priorities and apply search strategies.
2. Identify reconnaissance team assignments and positions.
3. Describe the importance of incorporating safety into rescue planning and briefing.
4. Apply a range of search tools from simple voice call-outs to the use of more sophisticated electronic equipment and canines.

Topic 1-5 Structure Triage.....4:00

Terminal Learning Objective (TLO): The student will be familiar with the most appropriate strategies to be used to effect rescues in various types of structures by learning how to triage structures and identify trapped victim(s).

Enabling Learning Objectives (ELO):

1. Identify the phases of a disaster
2. Apply tools used in structural triage and perform structural/hazard assessment.
3. Describe the variety of task assignments for the reconnaissance team.
4. Apply appropriate structural hazard markings to buildings.
5. Apply search and rescue assessment markings.
6. Perform a basic building search and rescue plan.

Topic 2-1: Collapse Patterns Structural Engineering.....4:00

Terminal Learning Objective (TLO): The student will be familiar with how building structures can be separated into specific types that exhibit unique collapse patterns when subjected to extreme forces due to earthquake, wind, and explosions.

Enabling Learning Objectives (ELO):

1. Describe how earthquakes, wind, and explosions produce unique effects on different types of structures.
2. Describe how each of these produce unique and recognizable collapse patterns.
3. Describe how this knowledge will allow us to recognize the difference between survivable and less-survivable voids.

Topic 2-2: Structural Hazard Identification 4:00

Terminal Learning Objective (TLO): The student will be familiar with the most common signs of distress exhibited by damaged structures, as well as understand to the most common hazards found in damaged structures, and methods that have been used to used to mitigate them.

Enabling Learning Objectives (ELO):

1. Identify how concrete and masonry crack
2. Describe how these cracks can be "read" to predict future performance of these structures.
3. Identify the most common hazardous conditions that will occur in the four building types.

Topic 3-1: Basic Shoring 4:00

Terminal Learning Objective (TLO): The student will be familiar with the function and capacity limitations of the shoring used in US&R to support damaged structures and why and how shores are constructed.

Enabling Learning Objectives (ELO):

1. Determine weights to be supported.
2. Determine the appropriate shore to be constructed.
3. Describe the sequence of construction to minimize risk.
4. Demonstrate how to inspect constructed shores.

RESCUE SYSTEMS 2 COURSE SYLLABUS

Topic 3-2: Shoring Construction 4:00

Terminal Learning Objective (TLO): The student will be familiar with how to maintain the integrity of all structurally unstable elements and how to properly transmit or redirect the collapse loads to stable ground.

Enabling Learning Objectives (ELO):

1. Demonstrate a proper shoring size-up.
2. Identify locations for proper shoring placement.
3. Describe shoring team concepts and identify positions and purpose.
4. Describe the different types of shoring components and equipment.

Topic 4-1 Breaking and Breaching 3:00

Terminal Learning Objective (TLO): The student will be able to properly breach, break, cut, and burn to gain access through concrete, steel, or other structural components during rescue operations in heavy floor, heavy wall, steel, and concrete structures.

Enabling Learning Objectives (ELO):

1. Identify types of concrete and their components.
2. Identify concrete components and their importance to systems design.
3. Describe their importance during collapse rescue operations.
4. Identify concrete construction types.
5. Describe the properties, strengths, and weaknesses of concrete and its components.
6. Select tools or tool packages for rescue operations.
7. Identify functional parts of an exothermic torch.
8. Identify functional parts of an oxy-acetylene torch.
9. Troubleshoot each tool as needed.

Topic 4-2: Tool Applications and Assessment.....1:00

Terminal Learning Objective (TLO): The student will be able to inspect, operate, maintain, and safely use the power tools used in Rescue Systems 2.

Enabling Learning Objectives (ELO):

1. Describe the operator's influence on tool performance.
2. Describe electrical power sources, electrical loads, and tool safety.
3. Describe the tool assessment criteria.
4. Demonstrate a pre-use inspection of all gas, fuel, pneumatic, hydraulic, and electric power tool systems.

Topic 4-3 Metal Burning 4:00

Terminal Learning Objective (TLO): The student will be familiar with the technology, capabilities, and characteristics of each different metal burning system, the different types of metals and their characteristics, which metal burning system is best suited for a particular job or assignment.

Enabling Learning Objectives (ELO):

1. Describe the functions that need to be performed by the burning teams.
2. Describe the advantages and disadvantages of the various types of metal burning equipment.
3. Describe the different and most expedient methods to be used with each cutting or burning system to safely accomplish the assigned task.

Topic 5-1 Lifting and Moving 8:00

Terminal Learning Objective (TLO): The student will be able to size-up objects that have entrapped people and efficiently apply a variety of machines and power to safely move these objects.

Enabling Learning Objectives (ELO):

1. Describe basic physics as it relates to weight, gravity, center of gravity, and friction and resistance force.
2. Demonstrate the use of a mechanical advantage to move heavy objects.
3. Demonstrate the effective use of air bags.
4. Demonstrate proper load stabilization techniques.
5. Demonstrate the use of a wedge anchor and eye nut.
6. Calculate the weights of common materials.
7. Use proper safety protocols.

RESCUE SYSTEMS 2 ACCREDITED TRAINING SITE REQUIREMENTS

An accredited Rescue Systems 2 (RS 2) Training Site has facilities, structures, work areas, materials, props, tools, and equipment of adequate size, type, and quantity to fully and safely support the cognitive and psychomotor training required to deliver the RS2 curriculum.

SITE CAPACITY

A RS2 Training Site is evaluated on its ability to deliver the required training to a maximum of 48 students. Each capacity level represents the maximum number of modules that can be taught on the site at any given time. This maximum number will be determined based on the suitability of the site to safely train between 12 students in each of the individual modules. A site may be capable of delivering from one to four modules simultaneously.

Four Modules
- Interior Shores Module
- Exterior Shores Module
- Breaking and Breaching Module
- Lifting and Moving Module

One-module Site
- Supports the instruction for teaching the maximum of one (1) module at a time for twelve (12) students
- One (1) RS 2 Primary Instructor is required for a student instructor ratio of 12:1

Two-module Site
- Supports the instruction for teaching the maximum of two (2) modules for twenty-four (24) students
- One (2) RS 2 Primary Instructors are required for a student instructor ratio of 12:1

Three-module site
- Supports the instruction for teaching the maximum of three (3) modules for thirty-six (36) students
- Three (3) RS 2 Primary Instructors are required for a student instructor ratio of 12:1
- One (1) RS 2 Senior Instructor is required

Four-module site
- Supports the instruction for teaching the maximum of four (4) modules for forty-eight (48) students
- Four (4) RS 2 Primary Instructors are required for a student instructor ratio of 12:1
- One (1) RS 2 Senior Instructor is required

MINIMUM SITE REQUIREMENTS

The accredited RS 2 Rescue Training Site assumes all responsibility, liability, and maintenance for the engineering design, strength, stability, and adequacy of all props, including anchor points and tie offs. The requesting agency further assumes all responsibility, liability, and maintenance for all tools, equipment, and supplies used at the site for the delivery of a RS2 class. This includes, but is not limited to, ladders, ropes, rescue hardware, shoring and cribbing materials. The facilities and props for each module should be in close proximity to each other to facilitate timeframes.

Facilities
- Classroom of adequate size and capability (including audiovisual equipment) to support cognitive training
- Wash areas
- Bathrooms
- Rehabilitation area
- Safe and adequate parking

Interior and Exterior Shores Module
- Structure(s) adequate for simultaneous operations of interior and exterior shoring systems that is of sound and safe engineering design
  - Area large enough to accommodate lumber supply (near cutting station)
- Interior shore
  - Working area: 20'x20' minimum with 8' ceiling
- Double-T spot shore
  - Area with simulated or actual joist(s) to construct one (1) Double-T spot shore
- Vertical shore
  - Area with simulated or actual joist(s) to set one (1) vertical shore with three (3) posts
- Laced post shore
  - Area with simulated or actual joist(s) to construct one (1) laced post shore

- Window, door, and horizontal shore
  - Two window openings 2' to 4' wide
  - At least one opening to be racked 10 to 15 degrees from plumb
- Two door openings 30" to 48" wide
  - At least one opening to be racked 10 to 15 degrees from plumb
- Sloped surface shore
  - 20'x20' working area with a 12' wide 12' long sloped surface
  - Configured so that the sloped surface is no shorter than 3' in height at the low end
  - Slope angle to be at least 6" in 10' (3 deg, 5%) to a max of 120" in 10' (45 deg. 100%)
- Raker shore
  - One 16' high minimum 16' long wall
  - One 16' high 16' long wall raked 5 to 15 degrees from plum
  - 20'x20' working area
- Cutting station and table
  - 20'x20' working area
  - Cutting table construction as per student/instructor manual

Breaking and Breaching Module

- Working area at grade level, 20' long, 20' wide
  - Concrete, asphalt, or unimproved ground
  - Length of work area is dependent on the length of the pipe-shaped props
- Four (4) concrete pipes or concrete vaults
  - 48" diameter
  - 8' long
- Twelve (12) re-enforced concrete slabs
  - 4'x4'x6" minimum with a maximum thickness of 8"
  - #3 rebar placed 12" on center
  - 5 sack mix
  - 2,500 psi
- Twelve (12) re-enforced concrete slabs
  - 4'x4'x3" minimum with a maximum thickness of 6"
  - #3 rebar placed 12" on center
  - 5 sack mix
  - 2,500 psi
- Two (2) steel plates
  - ¼"x4'x8'
  - Can be scrap material
- Two (2) steel I-beams
  - Various lengths
  - Can be scrap material
- Ten (10) feet wire rope
  - ½" diameter
- Two (2) steel siding / decking
  - 10'x2'x20 gauge
- Twelve (12) wood dunnage
  - 4"x4"x8'

Lifting and Moving Module

- Three (3) 20'x20' concrete pads with a 10' diameter buffer area at grade level (may be contiguous)
  - Concrete or asphalt
- Two (2) 5'x8'x12" concrete reinforced slabs (6,000 pounds each)
- One (1) 4'x8' minimum, solid concrete reinforced cylinder (15,000 lbs.)
  - This can be accomplished by filling the 4'x8' aqua conduit with concrete
- One (1) 5'x10'x5 ½" concrete reinforced slab
- Any combination of props to meet the KSAs of the final practical exercise

EQUIPMENT STANDARDS

Student safety is of paramount importance when conducting the type of high-risk training associated with the RS2 course. The equipment listed below is the minimum for each accredited RS2 Training Site. The equipment is in compliance with or exceeds the standards listed in NFPA 1983, Standard on Fire Service Life Safety Rope, Harness, and Hardware. Student safety is of paramount importance when conducting the type of high-risk training associated with the RS2 course. All PPE shall be the responsibility of the student and shall meet agency and site requirements. Lumber list does not include lumber required to construct props.

Rescue Systems 2 Equipment Standards	Description	Exterior Shores	Interior Shores	Lifting & Moving	Breaking & Breaching	Total 4 Modules
CONSUMABLES						
Anchors	Concrete wedge ½"x5½"				48	48
Cleats	2"x4"x12"	12	12			24
Common nails	8d	10 lbs	10 lbs			20 lbs
Common nails	16d	15 lbs	15 lbs			30 lbs
Drinking cups		50	50	50	50	200
Duplex nails	8d	100 lbs	100 lbs			200 lbs
Duplex nails	16d	100 lbs	100 lbs			200 lbs
Eye nuts	Female H/D ½" eye nuts				12	12
Gasoline – premix	5 gallon – safety can - funnel	1			1	2
Gasoline - unleaded	5 gallon – safety can - funnel	1			1	2
Lumber	6"x6"x16'	10	10			20
Lumber	4"x4"x16'	12	12			60
Lumber	4"x4"x14'	15	15	4		34
Lumber	4"x4"x10'	12	12			24
Lumber	2"x6"x16'	30	30			60
Lumber	2"x4"x12'	20	20			40
Lumber	2"x4"x10'	5	5			10
Lumber	2"x4"x16'	12	12			24
Lumber markers		12	12			24
Nails, pneumatic	8d, full head type nails	½ case	½ case			1 case
Nails, pneumatic	16d, full head type nails	½ case	½ case			1 case
Nails, powder actuated *(optional)*	2 ½" with washers	48				48
Nails, powder actuated *(optional)*	3" with washers	48				48
Plywood	4'x8'x¾"	4	4			8
Plywood	2'x2'x¾" (size of air bag)			4		4
Plywood gussets	12"x12"x¾"	36	36			72
Plywood gussets	6"x12"x¾"	36	36			72
Powder actuated charges *(optional)*	22 cal	96				96
Rotary hammer bit *(optional)*	2" carbide tip masonry bit				1	1
Rotary hammer bits	½" carbide tip masonry bits	1			6	7
Rotary hammer bits	¾" carbide tip masonry bit	1			4	5
Rotary hammer bits	1⅛" carbide tip masonry bit	1			4	5
NONCONSUMABLES						
Cribbing	4"x4"x18" (24" recommended)			140	24	164
Cribbing	2"x4"x18" (24" recommended)			50	12	62
Cribbing	4"x4"x9"			25		25
Cribbing	2"x4"x9"			25		25
Fire extinguishers	Dry chemical				1	1
Fire extinguishers	Water can				1	1
First aid kit						1
Picket, steel	1"x4'	12	12	*optional*	4	28
Rescue litter or Sked				*optional*	1	1
Rescue manikin				1	1	2
Tarps/salvage covers	Cover a 24'x24' area	1	1	1	2	5
Water jug	5 gallon	1	1	1	1	4
Wedges	4"x4"x18"	12 sets		24 sets	12 sets	48 sets
Wedges	2"x4"x12"	12 sets	24 sets	24 sets	12 sets	72 sets
TOOLS						
Anchor kit	1 wrench (per manufacturer's specifications			1		1

Rescue Systems 2 Equipment Standards	Description	Exterior Shores	Interior Shores	Lifting & Moving	Breaking & Breaching	Total 4 Modules
Air bags kit, high pressure per OSD	1 pressure regulator 1 supply hose 1 controller 2 hose (color coded) 2 HP air bags (50 ton minimum capability, any combination)			1		1
Air bags kit, low pressure per OSD	1 pressure regulator 1 supply hose 1 controller 1 air bag hose 1 LP air bags (minimum 5 ton capability any combination)			1		1
Air cylinders	SCBA bottles			10		10
Air chisel *(optional)*					1	*optional*
Atmospheric monitor *(optional)*					1	1
Bolt cutters	30"				2	2
Building marking kit	Spray paint (orange) Lumber chalk (stick) Lumber crayon (red) Lumber crayon (yellow) Lumber pencil Flagging tape (1" orange or red)				1	1
Carabiners				4 *(optional)*	6	10
Cats paw		4	4			8
Crow bar	3'	4	4	4	2	14
Carpenter belts		10	10			20
Come-a-long	2 ton minimum			1 *(optional)*	1	2
Chain	20' - ⅜" - grade 7 with a grab and slip hook			1		1
Chain	10' - ⅜" - grade 7 with a grab and slip hook			1		1
Chalk line with chalk		1	1			2
Chain saw kit - gasoline	Chain adjusting tool Spare chain Spare bar Spare spark plug Bar oil	1				1
Chain saw kit - electric	Chain adjusting tool Spare chain Spare bar Bar oil		1			1
Cutting torch kit: Plasma cutter or exothermic or oxy/acetylene or gasoline	Rods Tips Strikers Tip cleaning tools Burner's goggles, gloves, jacket				1	1
Cutting torch	Oxy/acetylene, oxy/gasoline, exothermic, ***or*** plasma				1	1
Circular saw kit - 7¼"	Spare carbide tip Blade replacement wrench	1	1			2
Circular saw kit - 10¼" (Beam saw)	40 tooth spare carbide tip Blade replacement wrench	1	1			2
Demolition hammer, small with chisel and bull point bits	35-45 lbs. Electric, hydraulic, pneumatic, ***or*** gasoline				1	1
Demolition hammer, large with chisel and bull point bits	60 lbs. minimum Electric, hydraulic, pneumatic, ***or*** gasoline				1	1
Drill kit	½" variable speed Bits (½" , ¾", and 1")	1			1	2
Extension cord w/adapters	50' – 12/3 – 20 amp	2	2		4	8
Ellis clamps	4"x4"		8			8
Ellis jack			1			1
Ellis post screw jack	4"x4"		4			4
Framing hammer	16 ounce or larger	10	10			20
Framing square	24"	2	2			4

Rescue Systems 2 Equipment Standards	Description	Exterior Shores	Interior Shores	Lifting & Moving	Breaking & Breaching	Total 4 Modules
Fork lift or front loader	15,000 lbs. minimum			1		1
Generator, portable or 110v power supply	5 kw minimum with 5 gallons of fuel in safety fuel can	1	1		1	3
High lift jack				1		1
Level	4'	1	1			2
Level	6"	12	12			24
Lumber crayon	Red or blue	6	6	2		14
Lumber pencil		12	12	2		26
Nail gun, powder actuated *(optional, certification required)*		1	1			2
Nail gun, pneumatic (framing type)	With pneumatic, gas, compressor, or bottles Appropriate hoses 100'+ 2 regulators 2 gun oil	1	1			2
Pneumatic shore kit *(optional if available)*	2'–6' Regulator Hose Extensions and ends	3 each	3 each			6
Pipe, steel	Schedule 40 - 6'x1½"			8		8
Pipe cutter *(optional)*	2" capacity					
Pry bar, pinch point	60"			6	2	8
Rebar cutter	¾" electric/hydraulic				1	1
Rotary saw - gasoline	14" or 16" Belt adjusting tool Spare belt Spare spark plug				2	2
Rotary saw blades	14/16" carbide wood cutting				4	4
Rotary saw blades	14/16" metal cutting				4	4
Rotary saw blades	14/16" diamond blade				4	4
Rotary hammer	1½" electric with depth range capability	1			2	3
Reciprocating saw - electric	6 metal blades 6 wood blades	1	1		1	3
Reciprocating saw – cordless *(optional)*	Battery with charger 6 metal blades 6 wood blades	1	1		1	
Rope kit *(optional)*	1 static kernmantle (75' utility) 3 orange webbing (20') 1 green webbing (5') 3 rescue pulleys (2" or 4") 2 prusik cords			1		1
Single jack hammer	3-4 lbs.	4	4		2	10
Sledge hammer	8-10 lbs.	1	1	*optional*	2	4
Speed square		12	12			24
Shovel	Round point	1				1
Shovel	Square point	1				1
Tape measures	25'	12	12	2	2	28
Technical search device *(optional)*	Optical with articulating viewing				1	1
Tool kit	Miscellaneous tools					1
Utility knife	Razor knife with spare blades	12	12			24
Utility rope	100'				1	1
Ventilation fan *(optional)*	With 20' ducting				1	1
Water can	Pressurized				1	1
Webbing	1"-15' long				8	8
PROPS						
Concrete - slabs	4'x4'x6" #3 rebar 12" on center 2,500 psi 5 sack mix				12	12
Concrete - slabs	4'x4'x3" #3 rebar 12" on center 2,500 psi 5 sack mix				12	12
Concrete - pipe	48"x8'				2	2
Steel - plates	¼"x4'x8' (can be scrap)				2	2

Rescue Systems 2 Equipment Standards	Description	Exterior Shores	Interior Shores	Lifting & Moving	Breaking & Breaching	Total 4 Modules
Steel – I Beam	Various lengths (can be scrap)				2	2
Steel – wire rope	½"x10'				1	1
Steel – Q decking	10'x2'x20 gauge				2	2
Wood – dunnage	4"x4"x8'				12	12
Concrete slabs	5'x8'x12" reinforced concrete slabs (6,000 lbs. each)			2		2
Concrete slabs	5'x10'x6"			1		1
Pipe shaped props	4'x8' solid reinforced concrete cylinder (15,000 lbs.)			1		1

SITE DEVIATION

In the event that a training site has a facility, structure, or prop that does not comply with the RS2 minimum site requirements and equipment standards, the site has the opportunity to apply for a site deviation. A RS2 Senior Instructor or designee submits to the Chief of State Fire Training a formal letter requesting site deviation. This letter must describe the site deviation in detail by listing:

- The need and parameters of the deviation.
- New or revised lesson plans linked to the deviation that ensures consistency with the standards and behavioral objectives of the approved RS2 curriculum.
- Demonstration, either live or through visual aids, of any deviated technique or procedure.

The Chief of State Fire Training will review the request for site deviation. Any deficiencies will be appropriately documented and discussed with the RS2 Senior Instructor or designee requesting the site deviation. If site deviation is denied, a provisional accreditation may be granted at this time. If a site is not approved, they have three (3) months to comply with the site requirements identified as deficient in the inspection report.

SITE ACCREDITATION PROCESS

Rescue Systems 2 Training Sites will be inspected for compliance with the RS2 minimum site requirements and equipment standards. Sites may be accredited as one of the following:

- Full Accreditation
  - A permanent-use site that fully meets the RS2 minimum site requirements and equipment standards.
- Temporary Accreditation
  - A short-term use site that meets the RS2 minimum site requirements and equipment standards.
  - Typically, these sites are in areas where permanent sites are not practical or available.
  - Accreditation is granted for the purpose of delivering a set number of courses.
  - Once the training is complete, the temporary accreditation is rescinded.

Full Accreditation

A RS2 Training Site representative submits to the Chief of State Fire Training a formal letter requesting full accreditation for a permanent site. This letter must describe the site in detail by listing the facilities, structures, work areas, materials, props, tools, and equipment available and ready for delivering a RS2 course. State Fire Training staff and/or a registered RS2 Senior Instructor, operating under the direction of the Chief of State Fire Training, will conduct an inspection of the RS2 Training Site. Any discrepancies or deficiencies will be appropriately documented and discussed with the site representative at the time of the inspection. Copies of all inspection documents and notes will be kept on file. The Chief of State Fire Training will notify the RS2 Training Site of their status after the inspection.

Temporary Accreditation

A registered RS2 Senior Instructor or designee submits to the Chief of State Fire Training a formal letter requesting temporary accreditation for delivering a RS2 course. This letter must describe the site in detail by listing the facilities, structures, work areas, materials, props, tools, and equipment available and ready for delivering a RS2 course. Photographs of each required structure, work area, and prop must be included in the application package. A completed "Request for Rescue Systems Course Scheduling" providing the dates of the upcoming course and all instructors must be included in the application package. Temporary accreditation must be requested at least ninety (90) days before the beginning date of the course.

Appeals

Step 1

The RS 2 Training Site representative must submit in writing to the Chief of State Fire Training all evidence to support reversing SFT's denial of site accreditation. After review of all submitted materials, the Chief of State Fire Training will notify the site representative in writing of the decision to uphold, modify, or withdraw the denial of accreditation.

Step 2

If the denial of accreditation is upheld, the site representative may appeal the findings to the Assistant State Fire Marshal. The RS2 Training Site representative must submit in writing all evidence to support reversing the decision of the Chief of Education and Training. After review of all submitted materials, the Assistant State Fire Marshal will notify the site representative in writing of the decision to uphold, modify, or withdraw the denial of accreditation.

The decision of the Assistant State Fire Marshal is final.

FSTEP

Course: Rescue System 3: Structural Collapse Technician (2012)
Hours: 24 (Six, 4 hour modules)
Designed For: All fire service and allied emergency response personnel
Description: Bridges the training gap between the California State Fire Training Rescue Systems 2 Advanced Rescue Skills course and the Federal Emergency Management Agency Structural Collapse Technician course. Key topics include: powder actuated tools, pneumatic shores, additional tools and techniques for breaking and breaching, cutting a tensioned cable, the "O" course, rigging, and crane operations.
Prerequisites: Rescue Systems 2
Confined Space Rescue Technician
Trench Rescue Technician
Hazardous Materials (Operations Level)
Certification: None
Class Size: 48
Student to Instructor Ratio: 12:1 and 1 Senior Instructor for 1-4 module delivery
(Note: Senior cannot be a Primary in 3 or 4 module classes)
Restrictions: Delivered only at an approved RS-2 training site.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Rescue Systems 3 Student/Instructor Manual	2012	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Rescue Systems 3 PowerPoint	2012	SFT

VENDORS		
SFT	State Fire Training Website	http://osfm.fire.ca.gov/training/rescuesystems.php

RESCUE SYSTEMS 3: STRUCTURAL COLLAPSE TECHNICIAN COURSE PLAN

MODULE I

Topic 1: Introduction and Administration / Safety..... 2:00
Terminal Objective: The student will receive all information regarding administration and operational requirements for
completion of this course, along with an understanding of the importance of sound safety practices in all phases of planning and rescue operations.
Enabling Objectives:

1. Receive an overview of the student manual.
2. Receive squad assignments and a schedule of events and rotation times, course agenda, and information regarding the location of specific events.
3. Receive information and the necessary paperwork for reporting injuries.
4. Understand the importance of recognizing and mitigating safety hazards.
5. Be able to perform a risk / hazard analysis for a specific incident and suggest actions to minimize risks and/or eliminate hazards.
6. Understand the importance of safety risk and hazard identification.

Topic 2: Power Actuated Tools..... 1:00
Terminal Objective: The student will understand the function, capacity and how to safely operate power actuated tools used in Urban Search and Rescue to support damaged structures.

1. Understand the purpose and use of powder actuated tools.
2. Understand how to perform the center punch test.
3. Understand proper safety techniques.
4. Demonstrate the proper operation of powder actuated tools.

5. Receive certification in the use of specific powder actuated tools (optional).
6. Demonstrate proper safety techniques.

Topic 3: Rigging 1:00
Terminal Objective: The student will understand the function and capacity of rigging used to lift and move and move heavy objects.
Enabling Objectives:
13. Identify different types of rigging equipment.
14. Understand the purpose and use of rigging equipment.
15. Understand effects of critical angles on rigging equipment.
16. Demonstrate the inspection of rigging equipment.

MODULE II
Topic 1: Shoring 4:00
Terminal Objective: The student will understand the function and capacity of shoring systems used in Urban Search and
Rescue to support damaged structures.
Enabling Objectives:
1. Identify the components of pneumatic shores.
2. Understand the purpose and use of pneumatic shores.
3. Understand the limitations of pneumatic shores.
4. Understand how to construct a spot shore.
5. Understand how to construct a window shore.
6. Construct a vertical shore.
7. Understand how to construct a door shore.
8. Construct a horizontal shore.
9. Construct a raker shore.
10. Understand how to construct a sloped floor shore.
11. Demonstrate proper safety techniques.

MODULE III
Topic 1: Breaking / Breaching 4:00
Terminal Objective: The student will properly break and breach to gain access through concrete, steel or other structural
components during rescue operations in heavy floor, heavy wall, steel and concrete structures.
Enabling Objectives:
1. Use rotary hammer to breach a 2" minimum inspection hole.
2. Breach concrete while suspended by a rope system.
3. Construct a rope system consistent with Rescue Systems 1.
4. Identify safety concerns when breaching concrete.
5. Set up and operate the Stanley hydraulic power unit.
6. Use the hydraulic chainsaw.
7. Demonstrate a bevel cut for a "lift out".
8. Use the hydraulic circular saw.
9. Use the hydraulic breakers.
10. Drill 2” core hole in concrete.
11. Use gas and electric concrete coring tools.
12. Demonstrate proper safety techniques.

RESCUE SYSTEMS 3: STRUCTURAL COLLAPSE TECHNICIAN COURSE PLAN (cont'd)

MODULE IV

Topic 1: Cutting / Burning 4:00

Terminal Objective: The student will understand the capabilities and limitations of all types of burning equipment that can be used in USAR operations.

Enabling Objectives:

1. Use the oxy/acetylene cutting torch.
2. Use the oxy/gasoline cutting torch.
3. Use the exothermic cutting torch.
4. Demonstrate the proper technique for a piercing / plunge cut with each cutting torch.
5. Demonstrate the proper technique for a line cut with each cutting torch.
6. Demonstrate the proper technique for cutting a tensioned cable or wire rope.
7. Cut a hole in steel for a sling attachment (optional).
8. Demonstrate proper safety techniques.

MODULE V

Topic 1: Lifting / Moving ("O" Course) 4:00

Terminal Objective: Size-up objects that have entrapped people and efficiently apply a variety of machines and power to safely
move these objects.

Enabling Objectives:

1. Use levers to lift, move, and lower a heavy object.
2. Use pipes as rollers to move a heavy object.
3. Use wood timbers as rails.
4. Use an inclined plane.
5. Use crib beds to lift and stabilize a heavy object.
6. Construct a mechanical advantage system with rope and pulleys.
7. Construct an "A" Frame Gantry.
8. Use proper staffing and commands.
9. Demonstrate proper safety techniques.

MODULE VI

Topic 1: Lifting / Moving (Crane Operations)..... 4:00

Terminal Objective: Size-up objects that have entrapped people and efficiently apply a variety of machines and power to safely move these objects.

Enabling Objectives:

1. Accurately calculate load weights.
2. Find the center of gravity of different size loads and irregular shaped objects.
3. Use different methods to rig wire rope slings on a load.
4. Use different methods to rig synthetic slings on a load.
5. Properly use shackles in rigging a load.
6. Rig loads of different sizes and shapes.
7. Become familiar with different types of cranes.
8. Understand how to set up a crane.
9. Demonstrate proper crane hand signals.
10. Demonstrate proper safety techniques.

RESCUE SYSTEMS 3: STRUCTURAL COLLAPSE TECHNICIAN COURSE PLAN (cont'd)

SITE REQUIREMENTS

- The following are minimum requirements for a Rescue Systems 3 / Structure Collapse Technician Bridge Training Site.
  - The facilities and props for each module should be in close proximity to each other to facilitate time frames.
- The requesting agency assumes all responsibility, liability, and maintenance for the engineering design, strength, stability, and adequacy of all props.
- The requesting agency further assumes all responsibility, liability, and maintenance for all tools, equipment and supplies
  used at the site for the delivery of Rescue Systems 2 / Structure Collapse Technician Bridge classes.
  - This includes, but is not limited to, power tools, hand tools, and shoring materials.
- ***Orientation***
  - Classroom
  - Audiovisual equipment
  - Wash areas
  - Bathrooms
  - Rehabilitation area
  - Safe and adequate parking
- ***Shoring***
  - Structure(s) adequate for operations of interior and exterior shoring systems that is of sound and safe engineering design.
    - Area large enough to accommodate lumber supply (near cutting station).
  - Interior Shores
    - 20' x 20' minimum working area with an 8' minimum ceiling height.
  - Vertical Shore
    - Area with simulated or actual joists to set one vertical shore with two posts.
  - Window Shore
    - 24" x 24" minimum window opening.
  - Horizontal / Door Shore
    - Hallway or door opening with vertical walls that are at least 30" wide.
  - Sloped Floor Shore
    - 20' x 20' minimum working area with a 12' wide x 12' long sloped surface.
    - Configured so that the sloped surface is no shorter than 3' in height at the low end.
    - Slope angle to be at least 6" in 10' (3 deg, 5%) to a maximum of 120" in 10' (45 deg, 100%).
    - Earth or hard surface.
  - Raker Shore
    - 20' x 20' minimum working area.
    - 16' x 16' minimum wall.
  - Cutting station.
    - 20' x 20' minimum working area.
    - Cutting table built to USAR specifications.
  - Powder Actuated Tools
    - 20' x 20' minimum working area.
    - Poured concrete 3" minimum thickness
      - (1) One square foot minimum
    - Steel "I" Beam
      - (1) One foot minimum
    - Concrete / masonry blocks
      - (1) One square foot minimum

RESCUE SYSTEMS 3: STRUCTURAL COLLAPSE TECHNICIAN COURSE PLAN (cont'd)

- Breaking / Breaching / Cutting / Burning
  - 20' x 20' minimum working area.
    - Concrete, asphalt, or unimproved ground.
  - Concrete slab 6" minimum thickness with #3 rebar 12" on center grid pattern.
    - Gallows and Coring Tool
      - (1) One square foot per student minimum
    - Stanley Tool
      - (4) Four square feet per student minimum
  - Suitable frame or other method to secure the concrete slab perpendicular to the ground.
  - Suitable anchors to allow work while suspended from a rope system.
  - 1/4" plate steel
    - (1) One square foot per student minimum
  - Steel "I" beam
    - (1) One foot per student minimum
  - 1/2" min. wire rope or cable.
    - (1) One foot per student minimum
- ***Lifting / Moving***
  - 50' x 50' minimum working area with 20' clear area on each side.
    - Concrete, asphalt, or unimproved ground
  - Two (2) 30' x 30' minimum working areas.
    - Concrete or asphalt
  - Crane
    - 14 ton minimum
    - Area for crane to set up
    - Concrete, asphalt, or unimproved ground
  - Two (2) 3' x 3' x 3' concrete cubes.
  - One (1) 5' x 8' x 12" reinforced concrete slab.
  - One (1) 4' x 8' minimum, solid reinforced concrete cylinder
  - Three (3) 5' x 8' x 6" minimum, reinforced concrete slabs
  - Two (2) 30" high by 5' long minimum concrete barrier
  - Other irregular shaped concrete and / or steel objects

SITE DEVIATION

- In the event that a training site has a facility, structure, or prop that does not comply with the Rescue Systems 2 / Structure Collapse Technician Bridge Site Requirements and Equipment Standards, the site has the opportunity to apply for a site deviation.
- A Rescue Systems 2 / Structure Collapse Technician Bridge Senior Instructor or designee submits to the Chief of State Fire Training a formal letter requesting site deviation. This letter must describe the site deviation in detail by listing:
  - The need and parameters of the deviation.
  - New or revised lesson plans linked to the deviation that ensure consistency with the standards, Terminal Objective and Enabling Objectives of the approved Rescue Systems 2 / Structure Collapse Technician Bridge curriculum.
  - Demonstration, either live or through visual aids, of any deviated technique or procedure.
- The Chief of State Fire Training will review the request for site deviation.
  - Any deficiencies will be appropriately documented and discussed with the Rescue Systems 2 / Structure Collapse Technician Bridge Senior Instructor or designee requesting the site deviation.
  - If site deviation is denied, a provisional accreditation may be granted at this time.
  - If a site is not approved, they have three (3) months to comply with the site requirements identified as deficient in the inspection report.

RESCUE SYSTEMS 3: STRUCTURAL COLLAPSE TECHNICIAN COURSE PLAN (cont'd)

EQUIPMENT STANDARDS

- The equipment listed below is the minimum for each Rescue Systems 2 / Structure Collapse Technician Bridge Training Site.
- Student safety is of paramount importance when conducting the type of high risk training associated with the Rescue Systems 2 / Structure Collapse Technician Bridge course.
- All PPE shall be the responsibility of the student and shall meet agency and site requirements.
- Lumber List does not include material for prop construction.
- This list is the equipment and materials needed to conduct a one (1) squad class of 12 students. If conducting a class with two (2) or more squads, the list will need to be adjusted accordingly.

FSTEP

Course: Rope Rescue Technician (2013)
Hours: 40
Designed For: All fire service and allied emergency response personnel
Description: This course will prepare participants to undergo competency testing for high angle rescue. The scope of the program is to familiarize participants with the high angle environment and experience; and for them to safely participate in the engineering and operation of simple to complex rescue systems
Prerequisites: Rescue Systems 1 (2009) and Low Angle Rope Rescue Operations (LARRO) **OR** Rescue Systems 1 (prior to 2009)
Certification: None
Class Size: 48
Student/ Instructor Ratio: 12:1 6:1 during highline operations *Senior Instructor required for 1-4 module delivery. Senior Instructor cannot be a Primary Instructor in 3 or 4 module classes
Restrictions: Training site meets site requirements and equipment standards.

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Rope Rescue Technician Instructor/Student Guide	2013	SFT
REQUIRED INSTRUCTOR MATERIALS		
▪ Rope Rescue Technician Instructor/Student Guide	2013	SFT
▪ Rope Rescue Technician PowerPoint Presentation	2013	SFT

VENDORS		
SFT	State Fire Training Website	http://osfm.fire.ca.gov/training/technicalrescue.php

ROPE RESCUE TECHNICIAN COURSE PLAN

NOTE: Chapters with the Skills Verification (SV) designator (Chapters 2-5) contain LARRO and RS1 rope skills that must be verified before the student may continue with the Rope Rescue Technician course. New skills are also included in these chapters

CHAPTER 1: COURSE INTRODUCTION 1:00
Terminal Learning Objective: The student will be able to identify the course goals, planned activities to achieve those goals, and the requirements for successfully completing the Rope Rescue Technician course.
Enabling Learning Objectives:

1. Describe the course, including course objectives, syllabus, and calendar of events.
2. Demonstrate rescuer and victim safety during all Rope Rescue Technician exercises.
3. Select and use all personal protective equipment.
4. Describe the student evaluation process.

CHAPTER 2: ROPE RESCUE EQUIPMENT 2:00
Terminal Learning Objective: The student will demonstrate the proper use of the equipment used in the Rope Rescue Technician course.
Enabling Learning Objectives:

1. Describe the use/misuse of the rope rescue equipment.
2. Describe the inspection/maintenance of the rope rescue equipment.
3. Use, inspect, and maintain all rope rescue equipment.

ROPE RESCUE TECHNICIAN COURSE PLAN (cont'd)

CHAPTER 3: KNOTS, BENDS, AND HITCHES 2:00
Terminal Learning Objective: The student will identify and properly tie knots, bends, and hitches.
Enabling Learning Objectives:

1. Tie a tensionless hitch.
2. Tie optional knots, bends, and hitches as required.

CHAPTER 4: ANCHOR SYSTEMS (SV) 2:00
Terminal Learning Objective: The student will demonstrate anchor selection and anchor system construction.
Enabling Learning Objectives:

1. Describe system safety factors, critical angles, and force multipliers.
2. Describe considerations when selecting anchors.
3. Describe the types of anchors.
4. Construct the required anchor systems.

CHAPTER 5: HIGH ANGLE VICTIM PACKAGING 2:00
Terminal Learning Objective: The student will package a victim in a high angle environment.
Enabling Learning Objectives:

1. Package an ambulatory victim in a commercial victim harness.
2. Package an ambulatory victim in an improvised webbing harness.
3. Package a non-ambulatory victim in a rescue litter.

CHAPTER 6: TRAVEL RESTRICTION 2:00
Terminal Learning Objective: The student will demonstrate the selection, construction, and use of travel restriction for rescuers.
Enabling Learning Objectives:

1. Construct a travel restriction system.
2. Attach a rescuer to a travel restriction system.

CHAPTER 7: BELAY SYSTEMS 1:00
Terminal Learning Objective: The student will demonstrate proper technique to belay a load in the event of a failure of the main line.
Enabling Learning Objectives:

1. Define key points regarding the operation of a belay.
2. Catch a load with a belay.

CHAPTER 8: MAIN LINE SYSTEMS- LOWERING AND RAISING 2:00
Terminal Learning Objective: The student will demonstrate how to construct a lowering system and convert to a raising system using simple and compound mechanical advantage.
Enabling Learning Objectives:

1. Describe system safety factors, critical angles, and force multipliers.
2. Construct and operate a lowering system.
3. Convert a lowering system to a raising system using a compound 9:1.
4. Construct and operate a simple 5:1 "pig rig."

ROPE RESCUE TECHNICIAN COURSE PLAN (cont'd)

CHAPTER 9: LOAD RELEASING METHODS 1:00
Terminal Learning Objective: The student will construct and operate a load releasing device.
Enabling Learning Objectives:

1. Demonstrate proper technique when transferring a load (e.g. an inadvertently loaded belay or converting from a raising to a lowering system).

CHAPTER 10: RESCUE SCENE ORGANIZATION AND MANAGEMENT 1:00
Terminal Learning Objective: The student will implement the Incident Command System (ICS).
Enabling Learning Objectives:

2. Size up a rescue incident
3. Create objectives, strategy and tactics
4. Give operational and safety briefings.
5. Implement rescue scene organization, management, and assign positions.
6. Use command and control in rope rescue operations.
7. Terminate the incident.

CHAPTER 11: KNOT PASSING 2:00
Terminal Learning Objective: The student will pass a knot through a lowering and raising system.
Enabling Learning Objectives:

1. Pass a knot through a friction device.
2. Pass a knot through a belay during lowering and raising operations.
3. Pass a knot through a change of direction pulley during a raising operation on the mainline.

CHAPTER 12: ASCENDING AND DESCENDING 3:00
Terminal Learning Objective: The student will construct, ascend, and descend a fixed rope in a high angle environment.
Enabling Learning Objectives:

1. Construct a fixed rope system.
2. Ascend a fixed rope.
3. Negotiate an obstacle (e.g. pass a knot or crux) while ascending a fixed rope.
4. Convert an ascending system to a descending system.
5. Descend a fixed rope.
6. Negotiate an obstacle (e.g. pass a knot or crux) while descending a fixed rope.

CHAPTER 13: PICK-OFFS 3:00
Terminal Learning Objective: The student will perform a victim pick off.
Enabling Learning Objectives:

1. Construct a two line system for a pick off.
2. Attach a victim to a two line system.
3. Perform a pick-off of a supported/suspended victim.
4. Perform a pick-off of an unsupported victim.

CHAPTER 14: PROTECTED CLIMBING 3:00
Terminal Learning Objective: The student will perform a protected climb on a natural or manmade structure.
Enabling Learning Objectives:

1. Climb a manmade structure utilizing a bottom belay or Double Bypass Lanyard; or
2. Climb a landscape feature (e.g. arborist tree rescue) utilizing a bottom belay.

ROPE RESCUE TECHNICIAN COURSE PLAN (cont'd)

CHAPTER 15: HIGH ANGLE LITTER RIGGING AND TENDING..... 4:00
Terminal Learning Objective: The student will rig and tend an occupied rescue litter in a high angle environment.
Enabling Learning Objectives:

1. Package a patient into a rescue litter.
2. Attach the occupied rescue litter to a rope rescue system with a litter tender.
3. Tend the litter basket operation both above and below the basket.
4. Negotiate obstacles and manipulate the occupied litter while being raised and lowered.
5. Move the occupied litter up and over an edge.

CHAPTER 16: ARTIFICIAL HIGH DIRECTIONALS..... 3:00
Terminal Learning Objective: The students will construct and rig an artificial high directional.
Enabling Learning Objectives:

1. Construct an artificial high directional.
2. Rig a high directional.

CHAPTER 17: HIGHLINES 6:00
Terminal Learning Objective: The students will construct and operate a reeving highline with a midpoint drop to transport rescuers, equipment, and an occupied litter from one elevated location to another.
Enabling Learning Objectives:

1. Describe system safety factors, critical angles, and force multipliers.
2. Construct and operate a reeving highline system to perform a midpoint drop.
3. Move an occupied litter with an attendant from one elevated location to another above an obstacle or projection.

Total Hours..... 40:00

SITE REQUIREMENTS AND EQUIPMENT STANDARDS

A Rope Rescue Technician (RRT) Training Site must have facilities, structures, work areas, materials, and equipment of adequate size, type, and quantity to fully and safely support the technical and manipulative training required to deliver the RRT curriculum.

(A) GOALS

(1) Set minimum performance training objectives for RRT training programs.
(2) Identify those performance objectives a RRT Training Site must be capable of supporting.
(3) Provide the means to ensure proper curriculum delivery.
(4) RRT Training Sites will meet the minimum requirements to support curriculum delivery.
  (a) A completed "Request for FSTEP Course Scheduling" providing the dates and location of the upcoming course.
  (b) The names of all RRT instructors must be included with the request to support class size.

(B) SITE CAPACITY

An RRT Training Site is evaluated on its ability to support the required training. A One-squad site is the minimum and is capable of delivering training up to twelve (12) students or one (1) squad. Additional sites may be necessary to support the training for twenty-four (24) students, and up to a maximum of forty eight

(48) students simultaneously. Each capacity level represents the maximum number of students or squads that may be taught on the site at any given time. This maximum number will be determined based on the suitability of the site to safely train (12), twenty four (24), thirty six (36), or forty eight (48) students.

(1) One-squad site.
   (a) Supports the instruction of one (1) squad, a maximum of twelve (12) students on the site.
   (b) One (1) RRT Senior Instructor is required for a student instructor ratio of 12:1*****.
(2) Two-squad site.
   (a) Supports the instruction of two (2) squads, a maximum of twenty-four (24) students on the site.
   (b) One (1) RRT Primary Instructor and one (1) RRT Senior Instructor are required for a student instructor ratio of 12:1*****.
(3) Three-squad site.
   (a) Supports the instruction of three (3) squads, a maximum of thirty-six (36) students on the site.
   (b) Three (3) RRT Primary Instructors are required for a student instructor ratio of 12:1*****.
   (c) One (1) RRT Senior Instructor is required.
(4) Four-squad site.
   (a) Supports the instruction of four (4) squads, a maximum of forty eight (48) students on the site.
   (b) Four (4) RRT Primary Instructors are required for a student instructor ratio of 12:1*****.
   (c) One (1) RRT Senior Instructor is required.

***** Two (2) SFT registered RRT instructors are required for each highline

(C) SITE REQUIREMENTS

RRT Sites will be inspected by a RRT Senior Instructor for compliance with the RRT Site Requirements and Equipment Standards. The following are minimum requirements for a RRT Training Site:

(1) The requesting agency assumes all responsibility, liability, and maintenance for the engineering design, strength, stability, and adequacy of all props including anchor points and tie offs.
(2) The requesting agency further assumes all responsibility, liability, and maintenance for all tools, equipment, and supplies used at the site for the delivery of RRT classes. This includes, but is not limited to, ladders, ropes, rescue hardware and software.
(3) Additionally, the site must meet the following:
   (a) All high angle evolutions shall be performed in an environment in which the load is predominately supported by the rope rescue system.
   (b) A minimum vertical distance of 20’ is required for all high angle evolutions.
   (c) A minimum horizontal travel distance of 20’ and vertical height of 20’ measured from the ground to loaded mid span is required for highline evolutions.
   (d) The minimum required ascending distance is 20’.
   (e) The minimum required protected climb distance is 20’.
   (f) There must be an obstacle to negotiate while litter tending.
   (g) There must be an obstacle to negotiate while ascending and descending.
   (h) There must be an edge problem that the team must negotiate for the litter tender evolution.

(D) FACILITIES

(1) Classroom of adequate size and capability (audio/visual aids) to support classroom training.
(2) Wash areas.
(3) Bathrooms.
(4) Rehabilitation area.
(5) Safe and adequate parking.

(E) EQUIPMENT LIST AND STANDARDS

The following is a list of the minimum equipment that is required to conduct a Rope Rescue Technician course. Refer to the section (F) ENDNOTES for additional information.

Rope Rescue Technician Equipment List and Standards

Description	Up to 12 students or 1 squad	Each subsequent 12 person squad
Anchor Plate *	6	6
Backboard	1	See Endnote A
Descent Control Device *	8	8
Carabiners (locking)*	40	40
Commercial Class III Harness	6	6
Commercial Victim Seat Harness	1	1
Edge Protection	See Endnote B	See Endnote B
Ascenders	4 See Endnote C	0
Load Releasing Device	6 See Endnote D	4 See Endnote D
Low stretch/static kernmantle rescue rope 150 foot * (12.5 mm)	6 See Endnote E	6 See Endnote E
Low stretch/static kernmantle rescue rope 20 foot * (12.5 mm)	2	0
Pickets, steel (or equivalent)	Optional	Optional
Prusik Loop, Short (8mm)	10	10
Prusik Loop, Long (8mm)	10	10
Pulley *	15 See Endnote F	15 See Endnote F
Rescue litter	1	1
Rescue litter pre-rig	See Endnote G	See Endnote G
Sledge hammer	See Endnote H	See Endnote H
Spider straps	Optional	Optional
Tie ropes (12.5mm)	14	N/A
Webbing, green * 1” x 5’	12	12
Webbing, yellow * 1” x 12’	12	12
Webbing, blue * 1” x 15’	12	12
Webbing, orange * 1” x 20’	12	12
Knot passing pulley *	1	0
Pick-off strap *	2	0
Etriers	2 See Endnote I	0
Double bypass lanyard	Optional	Optional
Mini MA system	See Endnote J	See Endnote J
Artificial High Directional	See Endnote K	See Endnote K
Swivels *	Optional See Endnote L	Optional See Endnote L
Equipment to Belay a Falling Load	See Endnote M	0

* Indicates must meet NFPA 1983 “G” rating

(F) ENDNOTES

A. 1 backboard per site
B. Edge protection can be manufactured (rope rollers, etc.) or improvised (split fire hose, etc.). There shall be adequate amounts of edge protection available for concurrent running scenarios.
C. While Gibbs Ascenders™ are acceptable, handled ascenders are preferred.
D. Commercial or field assembled (webbing or cordelette) complete with General Use carabiners. These carabiners are in addition to the amounts specified under the carabiner and prusik categories.
E. Each rope of the two track highline must be one continuous length of rope. If your highline span is greater than 150 feet you must acquire longer ropes to span the gap. You may also need a longer reeve line rope.
F. 5 of the 15 pulleys must be single sheave prusik minding. 2 of the 15 should be double sheave prusik minding. Subsequent squads may not require additional double sheave pulleys.
G. Commercial or field assembled complete with General Use carabiners and prusiks, if field assembled these carabiners and prusiks are in addition to the amounts specified under the carabiner and prusik categories.
H. If pickets are used a sledge hammer is required.
I. Can be commercial or field assembled from one inch tubular webbing.
J. If performing the optional litter scoop evolution, a mini MA system will be needed to lower and raise the foot end of the litter. Can be commercial or improvised.
K. Can be a commercial (Arizona Vortex™, Terradaptor™, etc.) or improvised high directional (4x4 lumber). . If concurrent highline stations are being run, one additional artificial high directional per highline must be provided for each highline scenario.
L. "G" rated pulleys that have a built in swivel will satisfy this option.
M. This can be accomplished by having a person perform a hard, unexpected jerk on the end of the belay system. Whatever method the instructor chooses to demonstrate this skill, it SHALL NOT be performed using a live load.

Additional Notes:

1. Instructors at "Agency Specific" classes that use the CMC MPD™, Traverse 540 Rescue Belay™, and other similar devices may use these devices during the class.

2. Instructors at "open enrollment" classes should continue to show "traditional" methods of lowering & raising to their students (i.e. RPM). This does not mean that devices like the CMC MPD™, Traverse 540 Rescue Belay™, and other similar devices cannot be shown to students.

FSTEP

Course: Trench Rescue Technician (2014)
Hours: 24
Designed For: All fire service and allied emergency response personnel
Description: This three day (24 hour) course will take you from classroom discussion to working safely and efficiently in a trench rescue environment. This hands-on training program will cover topics that include: Trench and Excavation Regulations, Understanding Soil, Trench Configurations, Trench Hazards, Rescue Team Preparation, Incident Response, Initial On Scene and Pre-Entry Operations, Shoring Systems and Components, Installation of Shoring Systems, Victim Rescue and Recovery and Incident Termination
Prerequisites: Rescue Systems 1
Certification: None
Class Size: 24
Student/ Instructor Ratio: 12:1
1-Squad Site: 12:1 (12 total students) with 1 Senior Instructor
2-Squad Site: 12:1 (24 total students) with 1 Senior Instructor and 1 Primary Instructor
Restrictions: The Senior Instructor must validate the trench rescue training site for compliance with the Trench Rescue Site Requirements and Equipment Standards

REQUIRED STUDENT MATERIALS	EDITION	VENDORS
▪ Trench Rescue Technician Manual	2014	CMC
REQUIRED INSTRUCTOR MATERIALS		
▪ Trench Rescue Technician Manual	2014	CMC

VENDORS		
CMC	CMC Website	www.cmcrescue.com

TRENCH RESCUE TECHNICIAN COURSE PLAN

INTRODUCTION

Terminal Learning Objective: Students provided with information from this chapter, along with headlines from current events, will be able to recall fatality statistics and case histories and accurately apply this information to potential liabilities in trench rescue operations.

Enabling Learning Objective:

- Cite fatality and injury statistics from case histories and recent trench rescue incidents.
- Understand their personal liability and the potential for criminal prosecution, including monetary fines when standard operation guidelines are not adhered to

CHAPTER 1

Terminal Learning Objective: Students, with the information provided in this chapter, will demonstrate their knowledge by accurately citing specific regulations that impact trench rescue operations.

Enabling Learning Objective:

- Cite Federal Standard for Trenching and Excavations
- Cite California Standard for Trenching and Excavations
- List examples of other related regulations that may impact trenching operations
- Understand the importance of OSHA regulations as they relate to training and exercises

CHAPTER 2

Terminal Learning Objective: Students provided with information from this chapter, will be able to accurately describe soil classifications and types, soil testing procedures and other factors affecting trench stability.

TRENCH RESCUE TECHNICIAN COURSE PLAN (cont'd)

Enabling Learning Objective:

- Discuss basic soil facts and statistics
- Cite soil classifications and types
- Demonstrate soil testing
- Identify trench hazards and other factors affecting soil

CHAPTER 3

Terminal Learning Objective: Students, with the information provided in this chapter, will be able to accurately recognize types of trenches and excavations, along with the types of collapses, collapse patterns, and factors leading to trench failures.

Enabling Learning Objective:

- Define and describe a trench
- Identify the different types of trenches
- Recognize different types of collapse
- Distinguish various collapse patterns
- Identify the points of a trench

CHAPTER 4

Terminal Learning Objective Students provided with the information provided in this chapter, will accurately describe the different types of hazards associated in and around the trench incident as well as how to mitigate those hazards.

Enabling Learning Objective:

- Identify types of trench collapses and failures
- Identify hazardous trench soil conditions
- Understand gravity as a hazard
- Identify water hazards
- Understand surcharge loads
- Identify underground utilities as hazards
- Understand hazardous atmospheres
- Identify vibration hazards
- Develop a mitigation plan for identified hazards

CHAPTER 5

Terminal Learning Objective: Students, with information provided in this chapter, will accurately recall and discuss rescue team preparation including rescue tool maintenance and use, scene accountability, personal protective equipment and scene safety.

Enabling Learning Objective:

- Discuss the importance of trench rescue training
- Identify and discuss the use of proper tools and equipment
- Discuss the importance of rescue team building
- Discuss the importance of accountability and discipline
- Discuss mitigation techniques and the importance of safety working in and around trench emergencies
- Discuss and demonstrate proper personal protective equipment (PPE)

CHAPTER 6

Terminal Learning Objective: Students provided with information from this chapter, will accurately outline trench rescue considerations when responding to a given trench rescue incident.

TRENCH RESCUE TECHNICIAN COURSE PLAN (cont'd)

Enabling Learning Objective:

- Discuss the importance of the incident location
- Recall the importance of the Time of day
- Discuss the impact of weather on trench rescue operations
- Identify and develop Enabling Learning Objective strategies that restrict incident access
- Recognize the importance of responding with adequate trench rescue resources

CHAPTER 7

Terminal Learning Objective: Students with information provided in this chapter, will be able to accurately identify and integrate the operational priorities at a given trench rescue incident.

Enabling Learning Objective:

- Understand the importance of initiating the Incident Command System
- Demonstrate how to approach the trench
- Recall how to conduct a proper size-up.
- Understand the importance of the Reporting/Responsible party
- Identify all of the potential hazards at the trench incident
- Accurately recognize USA markings
- Students will understand victim considerations
- Conduct a pre-entry briefing

CHAPTER 8

Terminal Learning Objective: Students, provided with information from this chapter along with the provided tools, equipment, and materials, will accurately describe and demonstrate the pre-entry operation essential to safely perform in-and-around a given trench rescue incident.

Enabling Learning Objective:

- Assign a site Safety Officer
- Demonstrate the proper placement of ladders
- Establish edge protection around the trench
- Demonstrate the proper method of clearing the spoil
- Identify proper air-monitoring techniques
- Demonstrate the proper use of ventilation equipment
- Identify and mark unsafe hazards
- Conduct a Pre-Entry Briefing

CHAPTER 9

Terminal Learning Objective: Students, with information provided in this chapter along with the provided tools, equipment, and materials, will accurately identify and demonstrate various types of protective systems in trench rescue operations.

Enabling Learning Objective:

- Identify sloping and benching systems
- Identify trench shields and boxes
- Demonstrate timber shoring systems
- Demonstrate mechanical shoring systems including hydraulic, pneumatic and screw jacks

CHAPTER 10

Terminal Learning Objective: Students, provided with information from this chapter along with the provided tools, equipment, and materials, will accurately identify shoring system components and demonstrate how they are deployed and used in a given trench rescue operation.

TRENCH RESCUE TECHNICIAN COURSE PLAN (cont'd)

Enabling Learning Objective:

- Describe a shoring system and components
- Demonstrate the placement of shoring systems in a trench
- Identify how many shoring systems are used in a trench rescue
- Identify and establish the safe zones are in the trench

CHAPTER 11

Terminal Learning Objective: Students, with information provided in this chapter along with the provided tools, equipment, and materials, will accurately demonstrate the installation of shoring systems in a given trench rescue operation.

Enabling Learning Objective:

- Demonstrate the use of Trench Data Sheets
- Set-up and demonstrate the use of a cutting station
- Demonstrate the installation of sheeting and panels
- Apply shoring systems concepts and components
- Demonstrate proper nail patterns and positive connections
- Demonstrate the use of backfill and back-shoring

CHAPTER 12

Terminal Learning Objective: Students, provided with information from this chapter along with the provided tools, equipment, and materials, will accurately identify factors that affect victim search, soil removal, and demonstrate victim rescue and recovery at a given trench rescue operation.

Enabling Learning Objective:

- Discuss techniques used for victim search in a trench
- Demonstrate soil removal as it relates to victim recovery
- Demonstrate victim treatment in a trench rescue
- Demonstrate victim packaging in a trench rescue
- Demonstrate victim removal in a trench rescue

CHAPTER 13

Terminal Learning Objective: Students, with information provided in this chapter along with the provided tools, equipment, and materials, will accurately demonstrate all of the elements necessary to terminate a given trench rescue operation.

Enabling Learning Objective:

- Provide incident documentation and notifications
- Demonstrate techniques that increase rescuer safety during removal of shoring and equipment from the trench
- Identify the techniques to keep the scene safe upon leaving the area
- Describe the overall goals of critical incident stress debriefing

Course Hours……24:00

TRENCH RESCUE TECHNICIAN TRAINING SITE REQUIREMENTS

A Trench Rescue Technician Training Site must have facilities, structures, work areas, materials, props, tools, and equipment of adequate size, type, and quantity, to safely support, the technical and manipulative training required to deliver the Trench Rescue Technician curriculum.

(A) ***GOALS***

- Set minimum performance training objectives for Trench Rescue Technician training programs
- Provide the means to ensure proper curriculum delivery
- Trench Rescue Technician Training Sites will meet the minimum requirements to support curriculum delivery
  - The Trench Rescue Course Request shall provide the address and location of the upcoming course

(B) ***SITE CAPACITY***

A Trench Rescue Technician training site, evaluated by the Senior Instructor, will insure that the site has the capacity to deliver the required training safely. A one-squad site is capable of delivering training to twelve (12) students or one (1) squad. A two-squad site may be capable of delivering training to a maximum of twenty-four (24) students simultaneously.

- One-squad Site
  - Supports the instruction for teaching one (1) squad, a maximum of twelve (12) students on the site
  - One (1) Trench Rescue Technician Senior Instructor is required for a student instructor ratio of 12:1
- Two-squad Site
  - Supports the instruction for teaching two (2) squads, a maximum of twenty-four (24) students on the site
  - One (1) Trench Rescue Technician Senior Instructor and one (1) Trench Rescue Technician Primary Instructor are required to maintain a student instructor ratio of 12:1

(C) ***SENIOR TRENCH RESCUE TECHNICIAN SENIOR INSTRUCTOR SITE RESPONSIBILITIES***

- The Senior Instructor will validate the training site for compliance with the Trench Rescue Technician Site Requirements and Equipment Standards prior to submitting a course request to State Fire Training
- Any deficiencies in the training site, or equipment, shall be corrected before the class start date

(D) ***SITE REQUIREMENTS***

The following are minimum requirements for a Trench Rescue Technician Training Site:

- The facilities and props should be in close proximity to each other to facilitate timeframes.
- The requesting agency assumes all responsibility, liability, and maintenance for the engineering design, strength, stability, and adequacy of all props.
- The requesting agency further assumes all responsibility, liability, and maintenance for all tools, equipment and supplies used at the site for the delivery of Trench Rescue Technician classes. This includes, but is not limited to, ladders, ropes, rescue hardware and software, hand tools and power tools

(E) ***FACILITIES***

- Classroom with audiovisual equipment

- Wash areas
- Bathrooms
- Rehabilitation area
- Safe and adequate parking
- Area to demonstrate and practice skills (trench approach and size-up, cutting station, panel construction, tools and equipment skills stations)
- Open field area with approved excavated trenches. See page 5
- One (1) "L" Trench and one (1) "T" Trench excavated according to trench diagram.
    1) "L" Trench. Both legs of the trench to be 36" wide; each leg to be 20' long. One leg 8' deep and one leg 10' deep
    2) "T" Trench. The top of the "T" is to be 36" wide, 23' long and 8' deep. The upright portion of the "T" is 10' long, 60" wide and 8' deep
    3) Trenches must be in suitable soil for training with no extreme hazards
    4) Trenches will be collapsed with manikins for each scenario

(F) ***EQUIPMENT STANDARDS***

- The equipment listed below is the minimum for each Trench Rescue Technician Training Site to support one (1) squad/twelve (12) students or two (2) squads/twenty-four (24) students
- Student safety is of paramount importance when conducting this type of high-risk training associated with a Trench Rescue Technician course

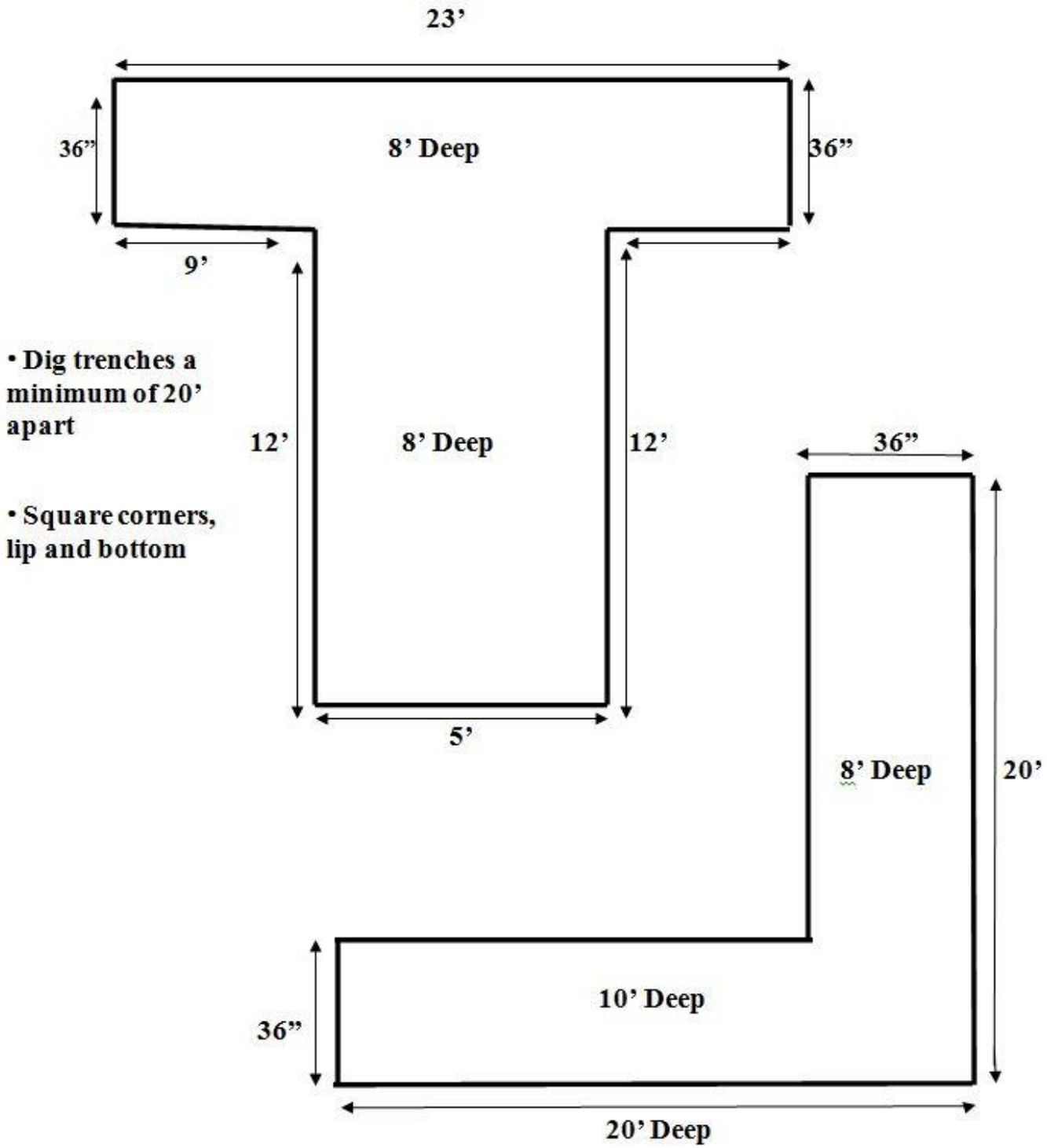
!! A Trench Rescue Technician Resource List is required for each class. !!

Trench Rescue Technician Equipment Inventory	1 Squad 12 students	2 Squads 24 Students
Plywood 4'x8'x3/4"	14	24
2"x12"x10' (8' is okay, 10' preferred)	14	24
2"x4"x8'	10	18
4"x4"x8'	14	24
4"x4"x12' (walers)	4	4
4"x4"x14' (walers)	4	6
6"x6"x12' (waler)	1	1
18", 4"x4" wedges	12 pair	24 pair
Finland Form plywood, 4'x8'x¾"	1	2
Wood Pallet for cutting station	1	1
Nails, 16D Duplex	30 lbs.	50 lbs.
Hydraulic Shores w/ extensions, pump and release handles	1	1
Pneumatic Shores w/regulator, controller and hoses	2	4
Trench Air Cushions w/regulator, controller and hoses	1	1
SCBA Cylinders	4	4
Pipe Screw Jacks, 1½" w/ pipe cutter and pipe wrench	3	6
Pipe; 11/2" schedule 40 steel; 10' lengths	2	4
Ellis Post Screw Jacks; 4"x4"	4	6

Trench Rescue Technician Equipment Inventory	1 Squad 12 students	2 Squads 24 Students
Lifeline 1/2"x 50’ (in bag)	4	6
Utility Line 25’	6	10
Webbing 1”x20’	4	8
Backboard w/straps	1	1
Rescue Litter (optional)	1	1
101/4” Circular Saw w/extension cord	1	1
Palm Nailer w/regulator, and hoses	1	1
Chain Saw; gasoline, w/fuel can, chain oil and extra chain	1	1
Generator; minimum 2.5 kw w/extension cord	1	1
Crow Bars	2	4
Shovels; round point, long handle	2	2
Shovels; square point, long handle	2	2
Shovels; round point, short D handle or Military type folding	2	2
Grubbing Tools	2	4
Pike Pole; 10’-12’	1	1
5 gal. buckets w/wire or rope handles	4	6
Framing Hammers	6	12
Single Jack (short handled 3-4 lb. sledge hammer)	3	6
Tape Measure’s 25’	6	12
Speed Squares	1	2
Carpenter Pencils	6	12
Squad Boxes or Buckets	3	6
Duct Tape	1	2
Salvage Cover	1	1
Ladders; straight or roof, 12’-16’	4	6
Ladder Belts or Escape Belts	4	6
Ventilation Fan	1	1
Atmospheric Monitor w/tubing	1	1
Manikins	3	3
Backhoe and Operator	1	1
Trench Rescue Tactical Worksheets	2	2
Daily Trench Inspection Worksheets	3	3
Trench Rescue Site Safety Officer Worksheets	2	2
Incident Action Plan Documents	1	1

Diagram Next Page

Required Trench Rescue Technician Trench Props



Appendix—Tracking Changes

Rev. Date:	Revision Change:
May 2015	Added: • Chief Fire Officer 3A-3D
April 2015	Added: • Company Officer 2A-2E • Instructor I: Instructor Methodology • Instructor II: Instructor Development Fixed: • FF I (2001) Curriculum discontinued 12/31/15 • FF II (2001) Curriculum discontinued 12/31/16 • Updated I200, I300, & I400 resource information • Updated FF I (2013) total hours (typo) • Corrected Fire Inspector 2A Max Class size from 40 to 30 • All HazMat curriculum now reflects (2007) version rather than (1993-1996) • Updated all references from Instructor Resources to Resources • Typo's Removed: • Fire Prevention 1A, 1B, 1C, 2A, 2B, & 2C
October 2014	Added: • Trench Rescue Technician (2014) • Rope Rescue Technician (2013) Fixed: • Updated Fire Prevention 2A, 2B, 2C, and 3A prerequisite to also include Fire Inspector 1A-1D. • Updated Fire Prevention 3B prerequisite to also include Inspector 2A-2D. • Updated Fire Inspector 2A prerequisite to also include Fire Prevention 1A-1C and fixed Fire Inspector I to say Fire Inspector 1A-1D. • Updated missing student manual to Inspector 1A, 1B, & 1C • Updated Command & Control of the RIC Deployment course outline label, previously stated Fire Fighter Survival course outline • Various typos and formatting
July 2014	Added: • Fire Fighter I (2013) • Fire Fighter II (2013) • Open Water Rescuer – Basic (2014) Fixed: • Updated RIC Operations prerequisite to allow either FFS or IAFF. • Updated Command 1A prerequisite to allow either Prevention I (2011)or Prevention 1A & 1B (2009) Removed: • Fire Command 1A • Fire Command 1C
April 2014	Fixed: • Clarification revision: Updated Fire Command 1B, Fire Command 1C & Fire Command 2A to allow the Command 1A course to satisfy the prerequisite. • Clarification revision: Updated Command 1C to allow Fire Command 1A to satisfy the prerequisite.

	• The Prevention 1 manual name is updated; The CA Fire Inspector's Guide is now The CA Fire Inspection Guide
December 2013	Added: • Fire Inspector 2A-2D Fixed: • Updated NWCG contact information • Rescue Systems 3 –materials are now posted on SFT website • Students manuals are now available for free download therefore bookstore contact information has been updated • Replaced remaining courses that still reflected a requirement for a certification exam with a requirement for an instructor created summative exam • Various typos
September 2013	Added: • Fire Inspector 1A-1D • Prevention 1 • Rescue Systems 3 • Terrorism Liaison Officer • AAIM • Driver Operator Aerial Tiller Truck Operations • Command 1A & Command 1C Fixed: • Fire Command 2B –materials are now posted on SFT website • Added download links for free downloadable manuals
February 2012	Unknown…
November 2011	Added: • Fireline Safety Awareness for the Hired Vendor • Command & Control of the RIC Deployment • RIC Operations