

Course Outline

COURSE: JFT 206 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2016 **CURRICULUM APPROVAL DATE:** 02/22/2016

SHORT TITLE: AUTO EXTRICATION

LONG TITLE: Auto Extrication

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
.5	18	Lecture:	.34	6.12
		Lab:	1.02	18.36
		Other:	0	0
		Total:	1.36	24.48

COURSE DESCRIPTION:

This course provides the knowledge and skills to prepare a student to extricate victim(s) from a common passenger vehicle in a safe and effective manner in accordance with AHJ policies and procedures. This is a pass/no pass course. **PREREQUISITE:** California State Marshal certified fire fighter 1 academy as determined by the Dean of Academy Instruction. Note: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course, rather they will be the starting point for advanced fire fighter training that builds upon them. These minimum knowledge and skill levels are regarding: 1. Firefighter safety 2. Knowledge of SCBA use and emergency procedures 3. Safe mounting and dismounting of apparatus 4. Knowledge of all firefighting personal protective equipment, including hand and eye protection 5. Familiarity of all firefighting tools and equipment, ladders, and hoses including appropriate selection, carry, and use for each type across all types of emergencies. 6. Fuel types, precautions, and suppression method(s) 7. Appropriate use of class A, B, and C fire extinguishers 8. Effective verbal communication used in fire fighting 9. Salvage and overhaul 10. First responder CPR and first aid

PREREQUISITES:

Completion of JFT 8, as UG, with a grade of C or better.

COREQUISITES:

CREDIT STATUS: C - Credit - Degree Non Applicable

GRADING MODES

P - Pass/No Pass

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

- 02 - Lecture and/or discussion
- 03 - Lecture/Laboratory
- 04 - Laboratory/Studio/Activity

STUDENT LEARNING OUTCOMES:

1. Demonstrate the ability to size-up a vehicle incident, remove the victim(s) safely, and terminate a vehicle incident by documenting any modification or damage done to the vehicle during the extrication process, transferring scene control, communicating potential or existing hazards, and terminating command.

Measure: Student application of expected skills, practical exercises, role play, discussion

PLO:

ILO: 1, 2, 4, 5, 7

GE-LO:

Year assessed or anticipated year of assessment: 2015

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 02/22/2016

I. Introduction (0.5 Hours)

- A. Identify facility requirements
- B. Identify classroom requirements
- C. Review course syllabus
 - 1. Course objectives
 - 2. Calendar of events
 - 3. Course requirements
 - 4. Student evaluation process
 - 5. Assignments
 - 6. Activities
 - 7. Required student resources
 - 8. Class participation requirements

SLO: Identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements.

Assignment: Review the course syllabus for a complete understanding of the course requirements.

II. Vehicle Extraction

- A. Planning for and Sizing Up a Vehicle Incident
 - 1. Fire agency's role at a vehicle accident
 - 2. Operational Protocols
 - 3. Specific planning and ICS forms
 - 4. All types of vehicles common to an AHJ's boundaries
 - 5. Conducting a scene size-up
 - 6. Vehicle anatomy and common terminology
 - 7. Vehicle hazards
 - a. Propulsion
 - b. Restraint systems
 - c. Electrical 12-volt systems
 - d. Other hazards
 - 8. Fire suppression and safety measures
 - 9. Emergency evacuation and safety signals
 - 10. Incident support operations and resources

11. Operational protocols
12. Specific planning forms based on vehicle types
13. Various types of vehicles within AHJ boundaries
14. Vehicle anatomy
15. Appropriate fire suppression and safety measures
16. Requesting support and resources
- B. Establishing Scene Safety Zones
 1. Personal Protective Equipment
 2. AHJ scene safety operation procedures
 3. Traffic control and traffic flow concepts
 4. Types of traffic control devices and tools
 5. Existing and potential emergency scene hazards
 - a. Weather
 - b. Terrain
 - c. Utilities
 - d. Hazardous materials
 - e. Traffic
 - f. Time of the day
 - g. Fire
 6. Hazard mitigation methods
 7. Characteristics of hot, warm, and cold safety zones and the activities carried out within each
 8. Appropriate personal protective equipment
 9. Traffic control concepts
 10. Traffic control devices and tools
 11. Existing or potential hazards
 12. Zone identification and personal safety techniques
- C. Establishing Fire Protection
 1. Types of fire and explosion hazards associated with a vehicle extrication incident
 2. Types of extinguishing agents/devices
 - a. Water or foam
 - b. ABC dry chemical extinguisher
 3. AHJ fire protection policies and procedures
 4. Types of flammable and combustible substances and ignition sources
 5. Extinguishment or control options
 6. Fire and explosion hazards
 7. Use of extinguishing devices
 8. Fire control strategies
 9. Managing ignition potential
- D. Stabilizing a common Passenger Vehicle
 1. AHJ vehicle stabilization policies and procedures
 2. Mechanisms of common passenger vehicle movement
 - a. Horizontal
 - b. Vertical
 - c. Roll
 - d. Pitch
 - e. Yaw
 3. Initial vehicle immobilization techniques
 - a. Gear selector

- b. Parking break
- c. Ignition
- 4. Types of stabilization equipment
 - a. Cribbing
 - b. Struts
 - c. Chock blocks
 - d. Step chock
 - e. Come-along/chain/ ratchet strap
 - f. Winch
 - g. Grip hoist
 - h. Other
- 5. Vehicle construction components that apply to stabilization
- 6. Stabilization points
 - a. Existing
 - b. Created
- 7. How terrain conditions impact vehicle stabilization
- 8. Operating stabilization equipment
- E. Isolating and Managing Energy Sources
 - 1. AHJ energy source isolation policies and procedures
 - 2. Energy types
 - a. Kinetic
 - b. Potential
 - c. Electrical
 - 3. Energy sources
 - a. 12-volt systems
 - b. 24-volt systems
 - c. Supplemental restraint systems
 - d. Struts
 - e. High-intensity discharge (HID) lights
 - f. Modified suspension systems
- 4. System awareness and isolation methods
 - a. Awareness
 - b. Isolation
- 5. Beneficial systems
 - a. Seat adjustment
 - b. Power windows
 - c. Adjustable column
 - d. Retractable roofs
 - e. Adjustable pedals
- 6. Tools for disabling hazards
- 7. Hazards
- 8. Operating beneficial systems in support of tactical objectives
- 9. Operating tools and devices for securing and disabling hazards
- F. Determining Passenger Vehicle Access and Egress Points
 - 1. AHJ vehicle access and egress standard operating procedures
 - 2. Entry and exit points
 - a. Primary (existing openings)
 - b. Secondary (created openings)

3. Potential hazards associated with victim access and egress
4. Entry and exit points and probable victim locations
5. Evaluating the impact of vehicle stability on the victim
- G. Creating Access and Egress Openings for Rescue
 1. AHJ vehicle access and egress policies and procedures
 2. Extrication equipment uses, limitations and safety considerations
 - a. Hand tools
 - b. Pneumatic tools
 - c. Electric/ cordless tools
 - d. Hydraulic tools
 - e. Stabilization tools
 - f. Mechanical/ power tools
 - g. Alternative entry and exit equipment
 3. Points and routes of access and egress
 - a. Existing
 - b. Created
 4. Techniques and potential hazards
 5. Selecting and operating tools and equipment
 6. Applying tactics and strategy based on assignment
 7. Performing hazard control based on selected techniques
 8. Safety procedures and emergency evacuation signals
- H. Disentangling Victims
 1. Disentanglement points and techniques
 - a. Cutting (remove)
 - b. Spreading (displace)
 - c. Lifting
 2. Dynamics of disentanglement
 3. Tool selection and application
 4. Victim protection methods
 5. Victim care and immobilization devices
 6. Initiating victim protective measures
 7. Extrication tools
 8. Evaluating and removing points of entanglement
 9. Incident stability and scene safety
- I. Removing a Packaged Victim to a Safe Area
 1. Patient handling techniques
 2. Incident Command System (ICS) roles
 3. Patient immobilization devices
 4. Immobilization packaging techniques
 5. Patient transfer devices
 6. Immobilization techniques
 7. Immobilization, packaging, and transfer devices for specific situations
 8. Medical protocols and safety features to immobilize, package and transfer
 9. Safe techniques for lifting a patient
- J. Terminating a Vehicle Incident
 1. Vehicle extrication incident termination
 - a. Protecting rescuers and bystanders
 - b. Notifying party responsible (RP) for vehicle removal and potential or existing hazards

- c. Transferring scene control to AHJ
- d. Terminating command
- e. Tools and equipment maintenance
- f. Returning equipment to operational readiness
- g. Properly disposing of used medical waste and biohazards
- h. Documentation and reports
- i. Debrief incident (post incident assessment)

SLO: Demonstrate the ability to create access and egress openings for rescue from a common passenger vehicle.

Assignment: Review and practice procedures for immobilizing, packaging, and transferring a victim.

METHODS OF INSTRUCTION:

Lab

Lecture

Skills Demonstration

Scenario based training

METHODS OF EVALUATION:

CATEGORY 1 - The types of writing assignments required:

Percent range of total grade: 20 % to 35 %

Course primarily involves skill demonstration or problem solving

CATEGORY 2 -The problem-solving assignments required:

Percent range of total grade: 20 % to 35 %

Quizzes

CATEGORY 3 -The types of skill demonstrations required:

Percent range of total grade: 30 % to 40 %

Class Performance/s

Performance Exams

CATEGORY 4 - The types of objective examinations used in the course:

Percent range of total grade: 20 % to 35 %

Multiple Choice

REPRESENTATIVE TEXTBOOKS:

Required:

David A. Sweet. Vehicle Extrication Levels I and II: Principles and Practice. Burlington, MA: Jones & Bartlett Learning, 2012. Or other appropriate college level text.

ISBN: 9781449648824

Reading level of text, Grade: 12 Verified by: Doug Achterman

Other textbooks or materials to be purchased by the student:

Principles of Vehicle Extrication, Fire Protection Publications, International Fire Service Training Association (IFSTA), 3rd edition

Instructor handouts

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:
IGETC:
CSU TRANSFER:
 Not Transferable
UC TRANSFER:
 Not Transferable

SUPPLEMENTAL DATA:

Basic Skills: N
Classification: Y
Noncredit Category: Y
Cooperative Education:
Program Status: 1 Program Applicable
Special Class Status: N
CAN:
CAN Sequence:
CSU Crosswalk Course Department:
CSU Crosswalk Course Number:
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: C
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000525811
Sports/Physical Education Course: N
Taxonomy of Program: 213300