



5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: JFT 214 **DIVISION:** 50 **ALSO LISTED AS:** JFT 11

TERM EFFECTIVE: Spring 2023 **CURRICULUM APPROVAL DATE:** 05/09/2023

SHORT TITLE: RESCUE SYSTEMS I

LONG TITLE: Rescue Systems I Basic Rescue Skills

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
1	18	Lecture:	.45	8.1
		Lab:	1.82	32.76
		Other:	0	0
		Total:	2.27	40.86
		Total Learning Hrs:	57.06	

COURSE DESCRIPTION:

This course familiarizes the student with the requirements for the California Urban Search and Rescue (US and R) Basic and Light Operational Levels. 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 hydraulic tools, use of fire service ladders in specialized rescue situations, and day and night simulated rescue exercises. This course was previously listed as JFT 11. **PREREQUISITE:** JFT 8.

PREREQUISITES:

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

COREQUISITES:

CREDIT STATUS: D - Credit - Degree 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:

By the end of this course, a student should:

1. List information on the potential hazards associated with rescue operations
2. Demonstrate techniques to break or breach building components to access a victim(s)

COURSE OBJECTIVES:

By the end of this course, a student should:

1. Demonstrate techniques to perform victim rescues safely and effectively when working around the structural collapse of a building including planning, utilizing system attachments, anchor systems, safety lines and ladders, and providing medical care to victims,

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

Curriculum Approval Date: 05/09/2023

LECTURE CONTENT:

- I. The California Urban Search & Rescue System (1 hour)
 1. Four levels of operational capability
 2. Training
 3. Five general construction categories
- II. Rescue Operations (1 hour)
 1. Four phases of structural collapse
 2. Checklist for the management of a structural collapse rescue
 3. US&R search described
 4. The search marking system
- III. US&R Safety and Medical Care for Victims (3 hour)
 1. General hazards of a structural collapse
 2. Four general types of building construction hazards
 3. Four types of collapse patterns
 4. Necessary personal protective equipment to use during an incident
 5. Safety and medical considerations to take during an incident
 6. Injuries associated with a structural collapse
 7. Basic infectious disease precautions to take during an incident
- IV. US&R Planning and Preparation (3.10 hour)
 1. Legal authority and responsibility for US&R
 2. Development of a vulnerability and hazard assessment
 3. Resources for a US&R incident
 4. Effective response coordination
 5. Training needed for local resources
 6. Budgetary needs during a US&R incident
 7. ICS, SEMS, and NIMS as they relate to a US&R incident
 8. Communications necessary for a US&R incident
 9. Scene control
 10. Federal and State resources

LAB CONTENT:

- V. RESCUE KNOTS AND HITCHES (1 hour)
 - 1. Six required knots
 - 2. RSI required knots
- VI. Anchor systems (1 hour)
 - 1. Considerations when selecting anchors
 - 2. Types of anchors
- VII. Rescuer and ambulatory victim packaging (1 hour)
 - 1. Rescue harnesses and rescuer packaging
 - 2. Donning class III harnesses
 - 3. Packaging a victim
- VIII. System attachments and fall restraint (2 hours)
 - 1. System attachments
 - 2. Attaching a rescuer
 - 3. Attaching an ambulatory
 - 4. Attaching a rescue litter to a rope rescue system
- IX. Belay/Safety Line Systems (4 hours)
 - 1. Key points regarding the operation of a belay/safety line system
 - 2. Belay/safety line configurations
 - 3. Lowering operations-basic configuration
 - 4. Retrieval operations-basic configuration
 - 5. System variations
- X. Rappelling/Descending (2 hours)
 - 1. Descending techniques
 - 2. Rappelling techniques
- XI. Lifting and moving heavy objects (6 hours)
 - 1. Tools types, capabilities, and safety considerations
 - 2. Types of jacks, operating principles, and safety precautions
 - 3. Personal protective equipment, safety precautions and medical precautions
 - 4. Rescue team positions
 - 5. Raising, stabilizing, rotating, and lowering a heavy object
 - 6. Extricating a victim from under the object.
- XII. Breaking and Breaching (3 hours)
 - 1. Tool types, capabilities, and safety considerations when breaking and breaching.
 - 2. Light-frame structure design
 - 3. Appropriate personal protective equipment, safety precautions, and medical precautions.
 - 4. Breaking and breaching operations
- XIII. Ladder Rescue Systems (7.76 hours)
 - 1. Ladder slide
 - 2. Exterior leaning ladder
 - 3. Interior leaning ladder
 - 4. Cantilever ladder
 - 5. Ladder gin
 - 6. Ladder "A" frame

- XIV. Shoring systems (5 hours)
 - 1. Techniques to mitigate structure collapse hazards
 - 2. Steps involved during shoring size-up
 - 3. Positions, roles, and responsibilities of the shoring team
 - 4. Types of shoring systems
 - 5. Basic tools and equipment for emergency shoring operations
 - 6. Timber Spot Shore
 - 7. Two-post Vertical Shore
 - 8. Horizontal Shore
 - 9. Window and Door Shore
 - 10. Sloped Surface Shore with Cribbing
 - 11. Split Sole Raker Shore System
 - 12. Cutting Station

METHODS OF INSTRUCTION:

Lecture, discussion, scenario training and demonstration will serve as the medium of instruction.

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours 8

Assignment Description

Reading Assignment: Review types of collapse patterns in Rescue Systems 1 Student Manual.

Required Outside Hours 8

Assignment Description

Writing Assignment: List different types of ladder systems and describe their uses and components.

METHODS OF EVALUATION:

Skill demonstrations

Evaluation Percent 50

Evaluation Description

Skills Exam, Scenario Skill Demonstration

Objective examinations

Evaluation Percent 50

Evaluation Description

Quizzes and Written Exam

REPRESENTATIVE TEXTBOOKS:

California State Fire Training. Rescue Systems 1 - Basic Rescue Skills Student Manual. California State Fire Training, 2022 or comparable textbook/material.

The California State Fire Marshal has updated textbook and materials 2010, no further textbook updates.

Reading Level of Text, Grade: 12 Verified by: Doug Achterman

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: CCC000588173

Sports/Physical Education Course: N

Taxonomy of Program: 213300