

Las Positas College  
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**Course Outline for FST 70B**  
**ADVANCED RESCUE PRACTICES**  
**Effective: Fall 1995**

**I. CATALOG DESCRIPTION:**

FST 70B — ADVANCED RESCUE PRACTICES — 2.00 units

Continuation of skills and knowledge from Fire Service Technology 70A. Application of triage principles. Implementation of multi-casualty incident safety, access, first aid, extrication and removal operations. Advanced wildland incident vertical slope lowering and hoisting skills. Structure collapse shoring, debris tunneling and trench collapse patient recovery techniques. Includes simulated structure collapse rescue and incident command exercises.

1.00 Units Lecture 1.00 Units Lab

**Prerequisite**

FST 70A - Rescue Practices  
with a minimum grade of C

**Grading Methods:**

Letter Grade

**Discipline:**

	<u>MIN</u>
<b>Lecture Hours:</b>	18.00
<b>Lab Hours:</b>	54.00
<b>Total Hours:</b>	72.00

**II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1**

**III. PREREQUISITE AND/OR ADVISORY SKILLS:**

**Before entering the course a student should be able to:**

A. FST70A

**IV. MEASURABLE OBJECTIVES:**

**Upon completion of this course, the student should be able to:**

- A. Apply the S.A.F.E.R. rescue principles to structure collapse and multi-casualty vehicle incidents and wildland evacuation;
- B. Perform advanced structure collapse search, shoring, and debris tunneling;
- C. Improvise and adapt with different tools and techniques for aircraft, bus, and BART rescue entry, extrication, and patient removal;
- D. Conduct rappel escort, Stokes basket hoisting, and horizontal hauling field exercises.

**V. CONTENT:**

**A. SESSION-10**

- 1. Triage principles
- 2. Treatment center set-up procedures
- 3. Multi-casualty management scenario
- 4. Reading assignment:

**a. Triage Principles**

**B. SESSION-11**

- 1. Incident command division locations
- 2. S.A.F.E.R. structure collapse rescue
  - a. building construction features
  - b. wall collapse
- 3. Shoring techniques
  - a. window shore
  - b. door frame shore
  - c. vertical shore
  - d. raking shore
  - e. single-wing flying shore
  - f. double-wing flying shore
- 4. Reading assignments:
  - a. Incident Command Guidelines
  - b. Structure Collapse Rescue

- C. SESSION-12
  - 1. Mechanical advantage
  - 2. Lashing and rigging
    - a. jib arm
    - b. gin pole
    - c. A-frame
    - d. tripod
    - e. army litter
    - f. improvised ladder litter
  - 3. Reading assignments:
    - a. Mechanical Advantage
    - b. Lashing and Rigging
- D. SESSION-13
  - 1. Steep angle hauling systems
    - a. Z-rig construction
    - b. Telfer line and Stokes removal
    - c. horizontal hauling and crane hoist
  - 2. Reading assignment:
    - a. Steep Angle Hauling Systems
- E. SESSION-14
  - 1. S.A.F.E.R. aircraft rescue
    - a. crash crew responsibilities
    - b. foam application
    - c. vehicle entry procedures
  - 2. Reading assignment:
    - a. Aircraft Rescue Procedures
- F. SESSION-15
  - 1. S.A.F.E.R. BART rescue
    - a. rescue train evacuation
    - b. aerial ladder evacuation
    - c. fire attack procedures
  - 2. Reading assignment:
    - a. BART Rescue Procedures
- G. SESSION-16
  - 1. S.A.F.E.R. bus rescue
    - a. vehicle entry techniques
    - b. patient extrication and removal
    - c. containerized triage procedures
    - d. treatment center functions
  - 2. Reading assignment:
    - a. Bus Rescue Procedures
- H. SESSION-17
  - 1. Trench collapse procedures
  - 2. Trench shoring techniques
    - a. plywood and speed shores
    - b. plywood and plank wales
    - c. ladder wales and wood struts
  - 3. Moving heavy objects
    - a. anchor construction
    - b. hauling systems
    - c. lifting devices
  - 4. Reading assignment:
    - a. Trench Collapse Procedures
  - 5. Review: Lashing and Rigging
- I. SESSION-18
  - 1. Structure access
    - a. forcible entry techniques
    - b. floor collapse
  - 2. Debris search procedures
  - 3. Tunneling techniques
  - 4. Reading assignment:
    - a. Tunneling Procedures
- J. SESSION-19
  - 1. Wildland evacuation procedures
    - a. picket holdfast anchor construction
    - b. rappel and Stokes basket belay
    - c. Stokes basket ascent procedures
    - d. passing a knot and ascending the rope
  - 2. Practice: all knots
  - 3. Review: Wildland Rescue
- K. SESSION-20
  - 1. Vertical slope evacuation
    - a. rappel, bowline trail sling and escort technique
    - b. vertical Stokes basket belay with rappel escort
    - c. A-frame and vertical hauling system
    - d. horizontal hauling system
  - 2. Practice: all systems
  - 3. Review:
    - a. Lashing and Rigging
    - b. Steep Angle Hauling Systems
- L. SESSION-21
  - 1. Elevator rescue procedures
  - 2. Elevator shaft removal
    - a. ladder sheerlegs
    - b. ladder gin pole
  - 3. Reading assignment:
    - a. Elevator Rescue Procedures
- M. SESSION-22
  - 1. Skill proficiency exam
    - a. triage

- b. patient immobilization
- c. shoring assembly
- d. tunnel construction
- e. ladder sheerlegs shaft hoist
- f. ladder jib arm vertical wall hoist
- g. jib arm army litter lowering
- h. rappel pick-up and vertical descent

N. SESSION-23

- 1. Wildland bus accident rescue scenario
  - a. command function assignments
  - b. patient extrication and removal
  - c. slope evacuation procedures
  - d. triage and treatment center operations
- 2. Review: all of the above

O. SESSION-24

- 1. Structure collapse rescue exercise
  - a. jib arm and army litter 1-point hoisting sling lowering
  - b. ladder gin pole and Z-rig raising
  - c. ladder sheerlegs and Z-rig hoisting
  - d. shoring assembly
  - e. tunnel construction, wall breaching, and patient removal
  - f. rappel and patient hasty sling pick-up
- 2. Review: all of the above

VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Discussion** -
- C. Handouts
- D. Video
- E. Overhead transparencies

VII. TYPICAL ASSIGNMENTS:

VIII. EVALUATION:

- A. **Methods**
  - 1. Exams/Tests
  - 2. Quizzes
  - 3. Class Performance
- B. **Frequency**

IX. TYPICAL TEXTS:

- 1. S.A.F.E.R. Rescue controlled notes (handouts)

X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Turnout coat
- B. Helmet
- C. Gloves
- D. Boots