Pennsylvania State Fire Academy

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Minimum Standard for Accreditation (MSA)

July 1995

Course Title: Basic Rigging for Rope Rescue (ROBR)

Length of Course: 16 Hours **Lecture/Lab Breakdown:** 4/12

Prerequisites: IST

Referenced Texts: CMC Rope Rescue Manual, James Frank and Jerrold Smith; On Rope, Allen Padgett and Bruce Smith; High Angle Rescue Techniques, Tom Vines and Steve Hudson; Manual of U.S. Cave Rescue Techniques, Steve Hudson

Course Goal: Participants in this course will be introduced to rope, rope hardware, patient packaging, and basic haul systems, which can be used in various aspects of rescue. The intent of this course is to provide rope and basic rigging experience for anyone interested in rope rescue, but particularly those who do not want to, or are unable to rappel.

Description of Course: Participants in this course will be introduced to characteristics of rope, rope hardware and various knots and hitches. Students will participate in patient packaging and stokes basket handling exercises. Students will be introduced to basic haul and lowering systems and their practical uses. Most of the program is hands on and time is allotted for practice to build proficiency.

Description of Methodology to be used: (Brief) A combination of lecture, demonstration, and supervised hands on practice will be used.

Student Equipment/Supply Needs: Notebook, pen or pencil, helmet with chin strap, clean leather gloves and work or hiking type boots. Students will also need a 15 foot section of rope and 15 foot piece of 1 inch tubular webbing for knot practice. Turnout gear is not acceptable. Students may supply additional personal or department owned equipment, but all such equipment is subject to inspection and/or rejection by the instructors prior to use.

Equipment/Audiovisual/Supply requirements: Chalkboard or Flip Chart, VHS VCR with TV or monitor. Training location with various slopes approximately 45 degree angle. Sufficient rope, carabiners, pulleys, figure 8's, rappel racks, prussic knots, and webbing to construct and operate multiple systems. In addition, a stokes basket and two ground ladders are required.

Continued

COURSE OUTLINE
(General - Not Detailed)

Time	Content	Instructor Notes
:30	Introduction, Paperwork	
:45	Characteristics and Care of Rope	
:45	Rope Gear and Hardware	
2:00	Knots and Hitches	
1:00	Patient Packaging/Stokes Tie-In	
1:00	Stokes Basket Handling	
2:00	Introduction to Haul Systems A) 1:1, 2:1, 3:1, 4:1	
:30	Demonstrate Lowering Systems and Switching to Haul	
1:30	Practice Haul and Lower Systems	
2:00	Demonstrate and Practice - Anchor Systems, Lower, and Haul Systems as related to Confined Space	
1:30	Practice all above and complete check off sheets	
2:00	Low Angle Stokes Basket Obstacle Course using Haul and Lower Techniques	
:30	Class Wrap Up and Student Evaluation	

Competency Evaluation Mechanism (Brief description-attach copy): Students will be given a check-off sheet. This sheet lists the skills required for successful course completion. Students will be required to demonstrate proficiency for each of the skills. Check-off sheets will be collected at course completion.

Course Objectives (specific): At the end of the program, the participant will:

1. be able to tie the following knots and hitches: Clove Hitch, Bowline, Double Fishermans, Water Knot, Rope/Web Chain, Anchor Wrap, Figure 8 Family, Wrap 3 Pull 2.
2. be able to secure a person into a stokes basket using 1 inch tubular webbing.
3. participate in Stokes Basket handling exercises.
4. be able to construct and operate a 2:1, 3:1, and 4:1 mechanical advantage system complete with safeties.
5. be able to move from haul to lower while the system is under tension.
6. be able to construct an A Frame from ground ladders to be used for confined space operations.
7. be able to construct appropriate anchor systems for Haul/Lower operations.
8. be able to demonstrate, as part of a team, the raising and lowering of a patient in a stokes basket, on an embankment or low angle situation.

Questions/Comments: Rita Wessel, Curriculum Specialist: Extension 106
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