



Safety and Rescue Training
for high-hazard work activities

**Confined Space
Fall Protection
Tower
Rescue**

Rope Access for the Fire Service

Rope access is an emerging discipline that is both distinct from, and closely related to, technical rope rescue. In this class (*duration 5 days*) we will gain an in-depth understanding of rope access and how the equipment and techniques can apply to a variety of emergency response operations.

The main learning outcome will be to identify practices and rigging systems that might be useful in specialized rescue situations. These can include wilderness operations, tower rescue operations, or any location where an in-depth understanding of rope rigging physical principles will be of benefit.

Prerequisites: Students who attend this class must have basic rope skills including knot-tying, constructing anchors, and operating mainlines and belay lines.

Course Outline

Course Objectives

At the completion of this training, students should be able to:

1. Describe the differences and similarities between rope rescue and rope access.
2. Fulfill the responsibilities required by a rescue team and a rope access team member.
3. Calculate forces (tension, compression, and friction) that a rope system must be able to withstand.
4. Design and set up a rope rescue and/or access system.
5. Move and transition within the vertical environment.
6. Access and move a patient to a place of safety.

Our programs reflect:

ANSI/ASSP Z490.1 *Criteria for Accepted Practices in Safety, Health, and Environmental Training*

Introduction to Rope Access

- Key Definitions
- Team Organization and Roles

Governing Agencies and Standards

- OSHA 1910.27(b)
- ISO 22846
- NFPA

Knot Craft

- Key Definitions and Usage
- Knots, Bends, Hitches

Applied Force Calculations

- Vector Analyses
- Safety Factors
- Compression and Tension

Anchor Integrity

- Anchor Concepts
- Single- and Multi-point back-ties

Mainline Setup/Operation

- Descent Control
- Mechanical Advantage Pulley Systems

Fall Protection

- Active vs. Passive
- Petzl ASAP Lock
- SRLs

Vertical Mobility

- Descending
- Ascending
- Horizontal Transfers

Vertical Rescue

- Victim Stabilization and Packaging
- Team-Base Rescues
- Solo Pick-offs

