



**Safety and Rescue Training**  
for high-hazard work activities

## Confined Space Fall Protection Tower Rescue

### 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**

## Rope Access for Rescuers

Rope access is an emerging discipline that is both distinct from, and closely related to, technical rope rescue. In this class (*duration 3-4 days depending on the students' pre-existing skills*) we will look at the standards governing rope access and gain an understanding of basic rope access techniques.

The main learning outcome will be to identify practices that might be useful in a rescue. In addition, technical rescue teams are often tasked with performing work activities in the vertical realm. In these situations, understanding rope access techniques will provide an immense benefit.

**Prerequisites:** None.

### Course Outline

#### Introduction to Rope Access

- Key Definitions
- Team Organization and Roles

#### Governing Agencies and Standards

- OSHA 1910.27(b)
- ISO 22846
- Private Organizations

#### 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

