

Program of Instruction

Course Syllabus

Course Title: Rope Rescue Technician – Level II

Course Duration: 80 Hours

Program: Special Operations Training Program

Course Prerequisites:

Rope Rescue Operations – Level I

Course Description: The scope of this course is to prepare local responders to operate as a local member of a regional team within the NIMS at a CBRNE (Chemical, Biological, Radiological, Nuclear, or Explosive) WMD Event requiring statewide response that has resulted in the need for a high-angle rescue. This course provides those personnel with the basic knowledge and skills needed to perform rescues using rope systems. The class will cover the use of rope, rope equipment, hardware, construction of mechanical advantage systems, belay and safety systems, anchor systems, and patient packaging. Special consideration will be given to the policies of standard-making agencies such as OSHA, ANSI, NFPA, and others.

Course Requirements and/or Recommendations: These can be divided into three categories: those completed prior to arriving in class (Pre-Course Work), those completed during class, such as homework assignments and quizzes (Course Work), and requirements completed after class but prior to receiving a certificate of completion. (Post-Course Work)

Summary of Directions

Pre-Course Work: None

Course Work: Attend and participate in all lectures and class activities

Post-Course Work: None

Course Policies:

Attendance Policy: IFSI requires students to attend (100%) or make up all course content that leads to certification. Students are expected to attend on time and to remain in class for the duration of the course. Students **MUST COMPLETE** all portions of a certification course, both classroom and practical, to be eligible to receive their certification.

If a student misses any portion of class with an accumulated absence of 20% or less of scheduled class time, it will be the student's responsibility to arrange the make-up of the missed course content with the instructor(s) or program manager. The student must make up the specific course content that s/he missed, not just the hours. Make-ups are

limited to 20% of scheduled class time. Make-ups must be documented on the class roster. If a student's absence is greater than 20% refer to "True Emergences" section of the IFSI Examination Policy.

Safety Policy: Students shall understand and follow all instructions pertaining to operational safety, as stated by instructors or as written in course materials. Instructors and students shall be mindful of safety at all times. Conduct judged to be unsafe shall be grounds for dismissal from the course.

Academic Integrity Policy: IFSI has the responsibility for maintaining academic integrity so as to protect the quality of the education provided through its courses, and to protect those who depend upon our integrity. It is the responsibility of the student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Any violation of the code of conduct is grounds for immediate dismissal from the course.

Grading Policy: Decisions regarding certificates of course completion shall be made solely by the lead instructor of the course. All grading of exams shall be conducted by the Curriculum/Testing Office. All grading of practical exercises shall be based upon the standards set by the regulatory agency referenced in the course material and IFSI.

American Disabilities Act: As guaranteed in the Vocational Rehabilitation Act and in the American Disabilities Act, if any student needs special accommodations they are to notify their instructor and provide documentation as soon as possible so arrangements can be made to provide for the student's needs. If arrangements cannot be made at the class site, the student will test at an alternative time and place where the special accommodations can be made.

Evaluation Strategy: Written and practical skill testing is conducted at the completion of the course.

Course Content:

Module: 1

Title: Introduction

Terminal Learning Objective:

At the conclusion of this module, the student will explain the purpose of rope rescue operations and the requirements students shall meet prior to being qualified as a technical rescuer.

Module: 2

Title: Safety

Terminal Learning Objective:

At the conclusion of this module, students will summarize the safety rules for rope rescue operations.

Module: 3

Title: Rope and Knots Review

Terminal Learning Objective:

At the conclusion of this module, the student will summarize characteristics of rope and knots used in rope rescue.

Module: 4

Title: Anchors and Rigging Review

Terminal Learning Objective:

At the conclusion of this module, the student will construct anchor and haul systems for rope rescue.

Module: 5

Title: Belay

Terminal Learning Objective:

At the conclusion of this module, the student will operate a belay system

Module: 6

Title: Descending

Terminal Learning Objective:

At the conclusion of this module, the student will descend a vertical fixed rope for a minimum of 30 feet using a moving brake bar rack.

Module: 7

Title: Jammed Rack

Terminal Learning Objective:

At the conclusion of this module, the student shall demonstrate clearing or rendering operable a jammed brake bar rack while on a fixed vertical rope.

Module: 8

Title: Victim access for natural and manmade structures

Terminal Learning Objective:

At the conclusion of this module, the student will construct rigging to climb natural and manmade structures and establish a system to lower a victim.

Module: 9

Title: Ledge Rescue

Terminal Learning Objective:

At the conclusion of this module, the student will participate in an operation rescuing a victim from a ledge.

Module: 10

Title: Line Transfer

Terminal Learning Objective:

At the conclusion of this module, the student will transfer a victim suspended on fixed vertical line rope to the rescuer's rope rescue system.

Module: 11

Title: Ascending and Converting

Terminal Learning Objective:

At the conclusion of this module, the student will maneuver on a fixed vertical rope.

Module: 12

Title: Knot Passing

Terminal Learning Objective:

At the conclusion of this module, the student will pass a knot through directional pulleys during both raising and lowering operations while under load.

Module: 13

Title: Litter Basket Operations

Terminal Learning Objective:

At the conclusion of this module, the student will operate as a member of a team assigned to raise and lower a patient in a litter basket.

Module: 14

Title: Hatch System

Terminal Learning Objective:

At the conclusion of this module, the student shall move a packaged patient in a rigid litter basket through a floor hatch.

Module: 15

Title: High Point Anchor

Terminal Learning Objective:

At the conclusion of this module, the student will operate as a member of a team to construct a high point directional anchor.

Module: 16

Title: Highline Construction

Terminal Learning Objective: At the conclusion of this module, the student will direct a team in the construction of a highline system and move a rescuer and rescue litter, with rescue load, from one point on the high line to a predetermined point on the ground.

Module: 17

Title: English Reeves System

Terminal Learning Objective:

At the conclusion of this module, the student will direct a team in the construction of a high line system utilizing an English Reeves system for vertical movement at any point along span on the high line.

Module: 18

Title: Incidents Involving Weapons of Mass Destruction

Terminal Learning Objective:

At the conclusion of this module, the student will summarize the considerations at a WMD incident.

Reference List:

NFPA 1500, Protective Clothing and Protective Equipment, 2013 Edition

NFPA 1006, Standard for Rescue Technician Professional Qualifications, 2013 Edition

NFPA 1670, Standard on Operating and Training for Technical Rescue Incidents, 2009 Edition

NFPA 1983, Fire Service Life Safety Rope and System Components, 2012 Edition

High Angle Rescue Techniques, Third Edition 2004, Tom Vines and Steve Hudson

On Rope, New Revised Edition 1996, Allen Padgett and Bruce Smith

The Ashley Book of Knots, Clifford W. Ashley, 1944

Office of the State Fire Marshal, Rope Operations Requirements IRM, May, 2004

Engineering Practical Rope Rescue Systems, Michael G. Brown, 2000

CMC Rope Rescue Manual, Fourth Edition New revised, 2013

U.S. Manual of Cave Rescue, National Speleological Society

Rope Levels I and II, Jeff Matthews 2009

Course Schedule

Day 1

Module 1	Introduction	15 minutes
Module 2	Safety	45 minutes
Module 3	Rope and Knots Review	1 hour
Module 4	Anchors and Rigging Review	1 hour 30 minutes
Module 5	Belay	30 minutes

Lunch

Log & Issue Student Gear Bags

Station 1: Anchor Systems Webbing and Straps Load Distributing Anchors Tensionless Hitch Picket Systems Dead Man Anchor System	1 hour 30 minutes
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Station 2: Haul Systems 3:1 Inline Haul Systems 3:1 Attached Haul Systems 4:1 Inline Haul Systems and attached 4:1 Compound Attached Haul Systems Change of Direction	1 hour 30 minutes
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Station 3: Belay Drop & Catch	1 hour
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Day 2

Module 6	Descending	4 hours
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Lunch

Module 7	Jammed Rack	2 hours
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Module 8	Victim access for natural and manmade structures	2 hours
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Day 3

Module 9	Ledge Rescue	4 hours
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Lunch

Module 10	Line Transfer	4 hours
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Day 4

Module 11	Ascending and Converting	
	Ascending	1 hour
	Descend using ascending equipment	1 hour
	Ascending to Descending	1 hour
	Descending to Ascending	1 hour

Lunch

Module 12	Knot-Passing	4 hours
	Horizontal Orientation	
	Vertical Orientation	

Day 5

Module 13	Litter Basket Operations	4 hours
	One Rope Vertical Orientation	
	Patient Packaging & Bridle System	
	Four Minute Drill	

Lunch

Module 13	Litter Basket Operations	4 hours
	Two Rope Vertical Orientation	
	Patient Packaging & Bridle System	
	Four Minute Drill	

Day 6

Module 13	Litter Basket Operations Single Rescuer Horizontal Orientation Two Rescuer Horizontal Orientation Lead Climb Ladder Rescue controlled from the ground	4 hours
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Lunch

Module 14	Hatch System Hatch Rescue	4 hours
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Day 7

Module 15	High Point Anchor Jib System Gantry System Gin Pole H-Frame window and door Four minute drill	4 hours
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Lunch

Module 16	Highline Construction On the Ground	4 hours
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Day 8

Module 16	Highline Construction High to Low Construction with continuous line change of direction system	8 hours
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Day 9

Module 17	English Reeves System High to High Construction with flying W system	8 hours
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Day 10

Module 18	Incidents Involving WMD	30 minutes
Course Review		30 minutes
Final Exam		2 hours
Working Lunch		
Final Practical		4 hours
Cleanup & Equipment Inventory		1 hour