

Program of Instruction

Course Syllabus

Course Title: Trench Rescue Operations – Level I

Course Duration: 32 Hours

Program: Special Operations Training Program

Course Prerequisites: Rope Rescue Operations

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 shallow, non-intersecting trench rescue. The Trench Rescue Operations course has been designed in accordance with NFPA 1006, Standard for Technical Rescue Professional Qualifications. This course pertains to trench rescues involving injured or entrapped persons. The class covers the federal and state regulations, use of specialized equipment for atmospheric monitoring, emergency shoring systems, victim excavation, and employment of rescuer constructed retrieval systems. Special emphasis will be given to rescuer safety and scene evolutions involving various trench rescue problems. Written and practical skills testing will be conducted at the completion of the course.

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 100% of the course.
- Completion of the final exam with a score of at least 70%.
- Complete all practical skills

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.

Retesting: If a student fails to pass an exam, retesting takes place on set dates at regional sites across the state. More information is provided in the course completion e-mail and on the IFSI website.

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.

Course Content:

Module: 1

Title: Introduction

Terminal Learning Objectives:

At the conclusion of this module, the student will explain Trench Operations responsibilities and hazards.

Module: 2

Title: OSHA Regulations

Terminal Learning Objectives:

At the conclusion of this module, students will summarize how the regulatory requirements of OSHA 29 CFR 1926 Subpart P dictate trench rescue operations.

Module: 3

Title: Hazards

Terminal Learning Objectives:

At the conclusion of this module, the student will summarize hazards that may be present during trench rescue operations

Module: 4

Title: Protective Systems

Terminal Learning Objectives:

At the conclusion of this module, the student will explain how protective systems are utilized during trench rescue operations.

Module: 5

Title: Rescue Shoring Systems

Terminal Learning Objectives:

At the conclusion of this module, the student will properly identify procedures for the selection, utilization, and application of shoring systems.

Module: 6

Title: Trench Rescue Operations

Terminal Learning Objectives:

At the conclusion of this module, the student will identify the step-by-step process for trench rescue operations.

Reference List:

Trench Rescue, Awareness, Operations, Technician 2nd Ed.
Cecil.V. “Buddy” Martinette Jr., Jones & Bartlett, 2008

Trench Operations Instructor Reference Manual, OSFM July, 2002

Rescue Technician Professional Qualifications, NFPA 1006, 2013 Edition,

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

OSHA, 29 CFR 1926 Title: Safety and Health Regulations for Construction
Subpart - P. Excavation.

Administrative Code: Part 350 Health and Safety, Section 350.280 Adoption of
Federal Standards

Class Schedule

Day 1

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| Module 1: Introduction | 30 minutes |
| Module 2: OSHA Regulations | 45 minutes |
| Module 3: Hazards | 45 minutes |
| Module 4: Protective Systems | 1 hour |

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| Module 5: Rescue Shoring Systems | 1 hour 30 minutes |
| Module 6: Trench Rescue Operations | 1 hour 30 minutes |
| Tabulated Data Exercise | 1 hour |
| Table Top Scenario | 1 hour |

Day 2

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| Drill 2.1: | Monitors, Ventilation, Marking Paint, FinForm Lacing, NIMS | 30 minutes |
| Drill 2.2: | Rescue Knots, Patient Packaging, & A Frame | 2 hours |
| Drill 2.3: | Hydraulic Shores/Supporting Utilities/Low & High Pressure Lift Bags/FICO | 2 hours |

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| Drill 2.4: | Rescue Timber & Ellis Screw Jack Shores, Cut Table | 2 hours |
| Drill 2.5: | Pneumatic Shores | 2 hours |

Day 3

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| Drill 3.1: | 5 Finform panel set "Live Trench" | 5 hours |
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| Drill 3.2: | 3 Finform panel with Outside Wales - "Live" Trench | 3 hours |
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Day 4

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| Final Exam | 1 hour 30 minutes |
| Final Practical Scenario-“Live Trench” | 5 hours |
| Clean-up | 1 hour |