

University of Illinois Fire Service Institute

Course Syllabus

Course Title: Elevator Equipment, Function and Rescue Considerations

Course Duration: 4 hours

Program: Firefighting Program

Course Prerequisites: There are no prerequisites for this course.

Course Description:

The course will provide the participant with a fundamental understanding of elevator equipment, how elevators operate during normal function, and review safety and failure modes for such equipment. This will include a review of rescue considerations and preparing for the advanced rescue if needed.

Upon successful completion of this class, the student will have an increased understanding of the function of an elevator and techniques to be considered as part of the rescue operation.

Course Requirements:

Pre-Course Work

Review existing elevators within your response agency.

Course Work

Participate in classroom presentation and apply information as warranted to your agency.

Post-Course Work

Complete a post class review of existing building/ elevators within your response agency for content applicability.

Course Policies:

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

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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.

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.

Course Content:

Module: 1

Title: Elevator History and Types

Terminal Learning Objective:

1. At the conclusion of this module, the student will explain the purpose of Elevator Rescue awareness and the requirements students must fulfill to successfully complete this course.

Module: 2

Title: Elevator Systems, Equipment and Mechanical Features

Terminal Learning Objective:

2. At the conclusion of this module, the student will review elevator system components, equipment, and mechanical features.

Module: 3

Title: Elevator Operation, Failure Mode and Extraction Considerations

Terminal Learning Objective:

3. At the conclusion of this module, the student will understand normal operations and identify failure mode and extraction considerations.

Module: 4

Title: Rescue Considerations and Safety Concerns

Terminal Learning Objective:

4. At the conclusion of this module, the student will be able to evaluate rescue and extrication considerations and safety techniques.

Module: 5

Title: Elevator Operations During Recall and Phase 1, Phase 2 and Emergency Evacuation

Terminal Learning Objective:

5. At the conclusion of this module, the student will understand elevator recall and Phase 1, Phase 2 and Phase 3 operating modes.

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Reference List:

American Society of Mechanical Engineers (ASME)

A17.1/ CSA B44 Safety Code of Elevators and Escalators, 2019

International Building Code Section 3007: Fire Service Access Elevators, 2015

International Building Code Section 3008: Emergency Evacuation Elevators,
2015

Recommended Reading List:

No recommended reading list

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Course Schedule

DAY ONE

| <u>Event</u> | <u>Duration</u> |
|--------------------------------------------------------------------------------------------|-------------------|
| Module 1 – Elevator History and Types | 30 minutes |
| Module 2 - Elevator systems, Equipment and mechanical features | 30 minutes |
| (BREAK) | 15 minutes |
| Module 3 - Elevator Operation, failure mode and extraction considerations | 30 minutes |
| Module 4 - Rescue Considerations and Safety Concerns | 45 minutes |
| (BREAK) | 15 minutes |
| Module 5 - Elevator Operations During Recall and Phase 1, Phase 2 and Emergency Evacuation | 30 minutes |
| Practical Drill: Elevator use including Phase 1 & phase 2 operating modes | 30 minutes |
| Practical Drill: Setting up a high anchor point | 30 minutes |
| Admin. Course Review and summary of content | 15 minutes |

Drills are to be conducted dependent on availability of equipment at the teaching facility