

Program of Instruction

Course Syllabus

Course Title: Residential Building Operations

Course Duration: 1-16 hours

Program: Firefighting Program

Course Prerequisites: None

Course Description: This course is designed for all ranks of fire service personnel who may respond to residential structure fires, in their area. This course covers in depth building construction, sizing up the incident, ventilation techniques, search and rescue as well as fire control tactics. The class will primarily be conducted in the classroom setting and will include a few tabletop exercises and drills. Upon successful completion of this course the student will have gained basic knowledge and skills for operating at incidents in residential structures.

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: Participate in discussions, drills and tabletops

Post-Course Work: None

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 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. 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: Building Construction

Terminal Learning Objectives:

At the conclusion of this module, the student shall explain the different types/components of building construction and their associated hazards

Module: 2

Title: Size Up

Terminal Learning Objectives:

At the conclusion of this module, the student will identify size up procedures associated with fire-ground operations.

Module: 3

Title: Fire Control

Terminal Learning Objectives:

At the conclusion of this module, the student will explain principles of fire control.

Module: 4

Title: Ventilation

Terminal Learning Objectives:

At the conclusion of this module, the student will explain principles and procedures of ventilation.

Module: 5

Title: Search

Terminal Learning Objectives:

At the conclusion of this module, the student will be able to identify the proper procedures to use when conducting a search and rescue operation.

Reference List:

- Brannigan, Francis. Building Construction for the Fire Service Quincy MA: National Fire Protection Association, 1994.
- Brannigan, Francis "The Building is Your Enemy: Part 5" Firehouse July 1998: 58-64.
- Brannigan, Francis "The Dangerous Five Classes of Buildings" Fire Engineering May 1999: 120-125.

- Brannigan, Francis "The Building is Your Enemy: Heavy Timber Construction" Firehouse July 2000: 64-70.
- Brennan, Tom. "Random Thoughts - Collapse: Movement of a Structure" Fire Engineering June 2000: 136.
- Brennan, Tom. "Random Thoughts - The Signs of Impending Building Collapse" Fire Engineering July 2000: 108.
- Delmar. Firefighter's Handbook: Essential of Firefighting and Emergency Response 3rd Ed. Albany NY: Delmar Publishers, 2008.
- Dunn, Vincent. "Safety & Survival: The Deadly Lightweight Truss" Firehouse January 2001: 16-20.
- Fire Protection Publications. Building Construction Related to the Fire Service Stillwater OK: Oklahoma State University, 1986.
- IFSTA, Essentials, 4th Edition, 1998
- Norman, J. Fire Officer's Handbook of Tactics (2013). Fire Engineering
- Smith, Michael L. "Heavy Timber Construction: What Firefighters Need to Know." Firehouse July 2000: 64-70.
- Smith, James P. "Fire Studies: Floor Collapse" Firehouse August 2000: 20-26.

Course Schedule

<u>Event</u>	<u>Duration</u>
Module 1 – Building Construction	2 hours
Drill – Building Construction Tour	2 hours
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Module 2 - Size Up	1 hour
Drill - Single Family Dwelling Fire Size Up	2 hours
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Module 3 – Fire Control	1 hour
Module 4 – Ventilation	1 hour
Drill - Ventilation	2 hours
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Module 5- Search	1 hour
Drill - Search	2 hours
Drill - Vent Enter Search	2 hours