

University of Illinois Fire Service Institute

Course Syllabus

Course Title: Engine Company Operations

Course Duration: 32 hours

Program: Firefighting

Course Prerequisites: None

Course Description: The class offers firefighters and Officers an opportunity to either sharpen their current skills or learn new and efficient skills for the all-important task of getting water on the fire. Students practice efficient hose loads and finishes for securing a water supply, whether rural or urban. Advancing lines through a variety of objectives including stairways, ladders, ground level and basement deployment, these are skills vital to the engine company. Students pull and deploy charged and uncharged hose lines in a variety of situations, both interior and exterior. Proper hose and nozzle selection for the size and type of fire are discussed. The engine company responsibilities with regard to rescue and other tactical priorities are presented and practiced.

This is a 28 hour course in residence, over 3 days, with a 4 hour online component to be completed prior to the student's arrival at IFSI. Students need to bring NFPA compliant PPE and NFPA compliant SCBA, preferred two SCBA bottles.

Course Requirements:

Pre-Course Work – 4-hour online component
Course Work – Participate in all course activities.
Post-Course Work – None

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)

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.

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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: One

Title: Engine Company Operations

Terminal Learning Objectives:

At the end of this module students will identify the core components of Engine Company operations on the fire ground.

Module: Two

Title: Water supply & Master Streams

Terminal Learning Objectives:

At the end of this module students will identify core components of water supply & Mater Streams.

Reference List:

Back to Basics - FDNY

Brannigan Book on Construction

Fundamentals of firefighting / Jones and Bartlett

John Norman

UL studies / Kerber

Vinnie Dunn Building collapse

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Course Schedule

DAY ONE

<u>Event</u>	<u>Duration</u>
Module 1: Engine Company Operations	1 hour
Module 2: Water Supply & Master Streams	1 hour
Facilities/Apparatus Orientation	1 hour
Drill 1.0 Flow Paths & Fire Behavior Demonstration	1 hour
Lunch	
Drills - Attack Hose loads	
Drill 1.1 Minute Man	30 minutes
Drill 1.2 Triple Layer	30 minutes
Drill 1.3 Flat Load	30 minutes
Scenarios	
Scenario 1.4 Advancing 1 ¾ attack lines to Multiple floors	1 hour 30 minutes
Scenario 1.5 Advancing 1 ¾ attack lines	1 hour 30 minutes
Scenario 1.6 Advancing 2 ½ attack lines	1 hour 30 minutes

DAY TWO

<u>Event</u>	<u>Duration</u>
Drills - Supply Hose loads	
Drill 2.1 Hydrant Connection	1 hour
Drill 2.2 Accordion	1 hour
Lunch	
Skill Station Coordinated Fire Attack	
Scenario 2.3 Basement Fire	2 hours
Scenario 2.4 Transitional Attack	2 hours
Scenario 2.5 Night Scenario	2 hours

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DAY THREE

Event

Duration

Coordinated Fire Attack Scenarios

10 hours

- Scenario 3.0 First Floor fire attack with rescue
- Scenario 3.1 Car Fire with extension to structure
- Scenario 3.2 Advancing Multiple Attack Lines
- Scenario 3.3 Advancing Attack Lines with Search
- Scenario 3.4 Second and Third Floor Fire
- Scenario 3.5 Single Family Dwelling
- Scenario 3.6 Single Family with Extension
- Scenario 3.7 Family trapped