

# University of Illinois Fire Service Institute

## Course Syllabus

**Course Title:** *iPUMPS*

**Course Duration:** 4 hours

**Program:** Driver/Operator

**Course Prerequisites:**

Student must be a member of a fire department or fire brigade and possess a valid Driver's License.

**Course Description:** This course is designed for firefighters who are assigned to or may be assigned to operate fire department pumper apparatus. Students will engage in an interactive instructional presentation that discusses basic fire pump operations and troubleshooting, then operate the pump panel simulators in pumping exercises. Students will practice pumping multiple hose lines and transitioning water supplies to support interactive fireground operations. Students will also discuss determining the proper discharge pressures for various hose layouts. While students are waiting to operate the pump panel simulators, they can view self-guided lessons including water supply, drafting, cavitation, nozzles, relay pumping, and pressure calculations.

**Course Requirements and/or Recommendations:**

Pre-Course Work – None  
Course Work – None  
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

# University of Illinois Fire Service Institute

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: Pump Operations

### Terminal Learning Objective:

At the conclusion of this module, the student will demonstrate safely operating a pumper apparatus to support simulated fireground operations.

## Reference List: (in alphabetical order)

IFSTA, Pumping and Aerial Apparatus Driver/Operator Handbook, 3<sup>rd</sup> Edition  
2015

Jones and Bartlett Learning, Fire Apparatus Driver/Operator, 4<sup>th</sup> Edition 2025

NFPA 1010, Standard on Professional Qualifications for Firefighters, 2024  
Edition

# University of Illinois Fire Service Institute

## Course Schedule

### 4-hour delivery

<u>Event</u>	<u>Duration</u>
Module 1 – Pump Operations	40 minutes
Drill 1.1 – Simulated Fireground Operations (repeated with ½ of class)	1 hour 40 minutes
Student-guided Outdoor Activity (repeated with ½ of class)	1 hour 40 minutes

---