Program of Instruction
Course Syllabus

Course Title: Basic Pumps

Course Duration: 16 hours

Program: Driver/Operator

Course Prerequisites: None

Course Description: This course is designed for firefighters who are interested in operating the pumps on their fire department. This class uses locally-available apparatus to provide core competencies with pumps and their related controls. Instructors lead discussion on types of pumps, pump controls, establishing water supply from draft and hydrants, establishing relay pumping operations, troubleshooting common problems, and placing lines in service. Upon completion of this course, the student will have a better understanding of how pumping apparatus work.

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 sessions have ended, but prior to receiving a certificate of completion. (Post-Course Work)

Summary of Directions
    Pre-Course Work**:** None
    Course Work: Attend and participate in all lectures and practicals.
    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.

Course Content:

Module: 1
Title: Pumper Fire Apparatus
Terminal Learning Objective:
At the conclusion of this module, the student will identify the function of pumper fire apparatus components.

Module: 2
Title: Troubleshooting
Terminal Learning Objective:
At the conclusion of this module, the student will identify the causes of common complications during pumping operations.

Module: 3
Title: Pump Operations
Terminal Learning Objective:
At the conclusion of this module, the student will demonstrate supplying effective fire streams from various water sources.

Reference List:
IFSTA, Pumping and Aerial Apparatus Driver/Operator Handbook, 3rd Edition 2015
Illinois State Fire Marshal's Office, Fire Apparatus Engineer Curriculum, Edition 2000
Jones and Bartlett Learning, Fire Apparatus Driver/Operator, 3rd Edition 2018
NFPA 1001, Standard for Professional Firefighter Qualifications, Edition 2013
NFPA 1002, Standard for Fire Apparatus Driver/Operator, Edition 2017
Pennwell, FireEngineering.com, Troubleshooting Pump Operations, Kevin Kalmus, 2-1-2008

Course Schedule

DAY ONE

Event	Duration
Module 1 – Pumper Fire Apparatus	1 hour 30 min
Drill 1.1 – Pump Panel Walk Through	30 minutes
Module 2 - Troubleshooting	30 minutes
Module 3 – Pump Operations	30 minutes
Drill 3.1 – Hydrant Changeover	1 hour
Drill 3.2 – Drafting Operations	1 hour
Drill 3.3 – Pressure Control Device Operation	1 hour
Drill 3.4 – Two Stage Pump Operation	30 minutes
Drill 3.5 – Tandem Relay Pumping	1 hour 30 min

DAY TWO

Event	Duration
Additional practice of skills as necessary	8 hours