

COURSE OUTLINE

Fire Apparatus Driver/Operator

Course Description

FS 265. Fire Apparatus Driver/Operator. 4 hours credit. Prerequisite: FS 100 with a "C" or better and FS 203 with a "C" or better. This course will enable the student to understand the responsibilities and skills required to function as a fire apparatus driver/operator. The student will learn to safely move the fire apparatus to and from emergency and non-emergency incidents. The student will also learn to safely and effectively operate fire apparatus at emergency and non-emergency incidents.

Course Relevance

Disciplines learned in this course will assist the student with the competencies of NFPA 1002, Standard on Fire Apparatus Driver/Operator Professional Qualifications. Upon completion of this course the student will have the opportunity to challenge a national examination that recognizes him/her as a professional fire apparatus driver operator.

Required Materials

FS265 Textbook & materials:

International Fire Service Training (1999). *Pumping driver/operator handbook*. (1st ed.). Stillwater, OK: Fire Protection Publications, Oklahoma State University.

Learning Outcomes

The intention is for the student to be able to

1. Identify and apply state and local laws of the authority having jurisdiction (AHJ)
2. Identify safety guidelines pursuant to the operation of fire department apparatus
3. Identify the characteristics and limitations of fire department apparatus, pumps, and water supplies
4. Demonstrate an understanding of fire hydraulics through operating various types of fire service pumps

Primary Learning PACT Skills that will be DEVELOPED and/or documented in this course

Through the student's involvement in this course, he/she will develop his/her ability in the following primary PACT skill areas:

1. Critical Thinking
 - By performing a safety inspection of the fire department pumper and identifying different elements of a fire department pumper the student will demonstrate critical thinking.

2. Problem Solving
 - Through the analysis of different fire department equipment the student will be able to identify problems and make immediate corrective actions to resolve the issues.
3. Field Related Technology
 - Through the application of various fire pump systems on the apparatus, the student will demonstrate a working knowledge of problems that arise and take immediate corrective actions.

Secondary skills (developed but not documented):

Communication Skills
Teamwork
Leadership Skills

Major Summative Assessment Task(s)

These learning outcomes and the primary Learning PACT skills will be demonstrated by

1. Demonstrating principles of the fire service hydraulics
2. Demonstrating principles of safe operations of fire department apparatus
3. Applying the proper course of action to be taken at various emergency and non-emergency incidents

Course Content

- I. Themes – Key recurring concepts that run throughout this course:
 - A. Safety
 - B. Knowledge
 1. AHJ
 2. Equipment
 3. Hydraulics
 4. Efficiency
 - C. Emergency/Non-emergency
- II. Issues – Key areas of conflict that must be understood in order to achieve the intended outcome:
 - A. Local laws of AHJ
 - B. Equipment and personnel safety
- III. Concepts – Key concepts that must be understood to address the issues:
 - A. Proper process for completing an apparatus safety inspection
 - B. Knowledge of various water supply systems, fire suppression systems, and fire department apparatus and their associated pump systems
- IV. Skills/Competencies – Actions that are essential to achieve the course outcomes:
 - A. Perform an inspection of the apparatus to verify its operational status
 - B. Operate a fire department vehicle over a closed road course that will present various driving challenges
 - C. Operate the apparatus so that it is positioned at a water source so an intake hose can be connected with out kinks, obstructions, or restrictions without needing to repositioning the apparatus

- D. Demonstrate the ability to produce hand and master streams as well as foam fire streams
- E. Demonstrate the ability to change water supply source from tank to external source
- F. Demonstrate the ability to supply another apparatus during a relay pumping operation

Learning Units

- I. Basic responsibilities and requirements
- II. Types of fire apparatus equipped with a pump
- III. Introduction to apparatus inspection and maintenance
- IV. Operating emergency vehicles
- V. Positioning apparatus
- VI. Water and water supply systems
- VII. Fire hose, nozzles, and flow rates
- VIII. Theoretical pressure calculations
- IX. Fire ground hydraulic calculations
- X. Fire pump theory
- XI. Operating fire pumps
- XII. Static water supply sources
- XIII. Relay pumping operations
- XIV. Water shuttle operations
- XV. Foam equipment and systems
- XVI. Apparatus testing

Learning Activities

Learning activities will involve class lectures, discussions, and exercises.

Grade Determination

The student's evaluation will be based on successful completion of the assessment tasks, attendance, and written examinations.