

FF214

Fire Apparatus – Pumping Operations

2 Credits

Instructor: TBA

Phone:

Original Developer: Chris Senaratne

Current Developer: Mariette Sargeant

Reviewer: Alan Jones

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FF214 Version: 3



Fire Apparatus – Pumping Operations

Calendar Description

This is a theory and practical course on pump operation including relay, tandem and dual pumping, portable pumps, apparatus service tests, and hydraulic calculations used in the fire service. The course also discusses the flow of water through large diameter hose, and single- and double-hose lays.

Rationale

Only skilled operators make the most use of today's sophisticated fire apparatus. This course provides excellent skill development for firefighters, pump operators, and those cross-training as backup to vehicle operators.

Prerequisites

FF113, valid driver's license, and air brake endorsement

Co-Requisites

None

Course Learning Outcomes

Upon successful completion of this course, students will be able to

1. perform a variety of pump operations for various hose configurations to get the required water flow and pressure.
2. operate portable fire department pumps.
3. make hydraulic calculations used in the fire service.
4. carry out apparatus service tests.

Resource Materials

Emergency Training Centre student guide.

IFSTA. (2015). *Pumping and aerial apparatus DRIVER/OPERATOR handbook* (3rd ed.).

Stillwater, OK: Fire Protection Publications Oklahoma State University.

Conduct of Course

This course is presented through the use of the required text, lecture, video, field demonstrations, and D2L.

Evaluation Procedures

Practical skills (pass/fail)

Written exam, 70% pass mark

Quizzes and tests on D2L are used as assignments of the program by the faculty. The tests are be used for ensuring that students are succeeding in their learning, and underachievement may lead to academic probation.

Grade Equivalents and Course Pass Requirements

The final mark is given as a letter grade.

| | | | | | | | |
|---------------|------|-------|-------|-------|-------|-------|--------|
| Letter | F | B- | B | B+ | A- | A | A+ |
| Percent Range | 0-69 | 70-74 | 75-79 | 80-84 | 85-89 | 90-94 | 95-100 |
| Points | 0.00 | 2.70 | 3.00 | 3.30 | 3.70 | 4.00 | 4.00 |

Attendance

Regular attendance is essential for success in any course. Absence for any reason does not relieve a student of the responsibility of completing course work and assignments to the satisfaction of the instructor. Poor attendance may result in the termination of a student from a course.

Course Units/Topics

Topics included but not necessarily in this order:

- Pumpers, Apparatus, and Accessories Review
- Pump Performance

- Water Supplies for Sprinklers
- High-volume Hose
- Tandem Pumping
- Portable Pumps
- Tandem Pumping: in Parallel and Series
- Relay Pumping: Long Distance and High Volume
- Two-pumper Operation
- Annual Pumper Service Test
- Portable Tank Operations
- Pumping Options



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