

College of San Mateo
Official Course Outline

1. **COURSE ID:** FIRE 725 **TITLE:** Fire Apparatus and Equipment
Units: 3.0 units **Hours/Semester:** 48.0-54.0 Lecture hours; and 96.0-108.0 Homework hours
Method of Grading: Letter Grade Only
Recommended Preparation:
 Eligibility for ENGL 100, or ENGL 105. FIRE 715
2. **COURSE DESIGNATION:**
Degree Credit
Transfer credit: CSU
3. **COURSE DESCRIPTIONS:**
Catalog Description:
 This course covers the operation, care and maintenance, specifications, capabilities and effective use of fire service apparatus and related equipment.
4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
 Upon successful completion of this course, a student will meet the following outcomes:
 1. Identify fire service apparatus and fire service equipment
 2. Describe fire service apparatus and equipment features and uses
 3. Explain apparatus operations for fire scene/emergency needs
5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
 Upon successful completion of this course, a student will be able to:
 1. Identify fire service apparatus and fire service equipment
 2. Describe fire service apparatus and equipment features and uses
 3. Explain apparatus operations for fire scene/emergency needs
6. **COURSE CONTENT:**
Lecture Content:
 1. Introduction
 - A. Fire apparatus – general overview
 - B. Apparatus development
 - C. Apparatus specifications – NFPA 1901
 - D. Power development and transmission
 - E. Future trends
 2. Pumping Apparatus
 - A. Pump designs
 - B. Pump accessories
 - C. Performance factors
 - D. Pumping principles
 - E. Hydrant operations
 - F. Tank operations
 - G. Water supply problems
 - H. Drafting operations
 - I. Pump tests
 - J. Troubleshooting
 3. Specialized Equipment
 - A. Aerial apparatus
 - a. Special operations with aerial apparatus
 - B. Variations and combinations of pump and aerial apparatus
 - a. Quads
 - b. Quints
 - C. Fire boats
 - D. Airport apparatus
 - E. Rescue vehicles
 - F. HazMat vehicles

4. Operating Apparatus at Emergencies
 - A. Hazards and techniques of emergency response
 - a. Liability
 - b. Driving laws
 - B. Effective use of apparatus

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Activity
- C. Discussion

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Reading Assignments:

Pre-reading for the class session

Other Outside Assignments:

Prepare for oral presentation

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Exams/Tests
- B. Oral Presentation
- C. Quizzes

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. International Fire Service Training Association (IFSTA). *Pumping Apparatus Driver/Operator*, 3rd ed. Fire Protection Publications, 2015
- B. International Association of Fire Chiefs (IAFC); National Fire Protection Association (NFPA). *Fire Apparatus Driver/Operator*, 2nd ed. Jones & Bartlett Learning, 2016

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Course Originator: Michelle Schneider