

**College of San Mateo
Official Course Outline**

1. **COURSE ID:** FIRE 680MD **TITLE:** Fire Academy Preparation
Units: 2.0 units **Hours/Semester:** 24.0-27.0 Lecture hours; 24.0-27.0 Lab hours; and 48.0-54.0 Homework hours
Method of Grading: Pass/No Pass Only
Prerequisite: FIRE 715 with a minimum grade of C or equivalent course from another accredited California Community College Fire Technology program.
Recommended Preparation:
 Eligibility for ENGL 100, or ENGL 105
2. **COURSE DESIGNATION:**
Degree Credit
Transfer credit: none
3. **COURSE DESCRIPTIONS:**
Catalog Description:
 This course will prepare students for participation in the Firefighter Academy. Students will receive an introduction to the daily requirements of a firefighter, apparatus and equipment used for rescue and fire suppression, tool identification and use, mechanical aptitude, and rope rescue practices. Students will perform physical exercises using fire hose, ladders, ropes, tool operations, personal protective equipment, and stairs. Students will learn to apply the health and wellness techniques for longevity in a fire service career through proper body mechanics, lifting techniques, and physical conditioning principles.
4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
 Upon successful completion of this course, a student will meet the following outcomes:
 1. Describe the daily duties and responsibilities of a firefighter in the field
 2. Discuss different tools along with their mechanical advantages and hazards
 3. Describe basic safety practices used by fire department personnel to keep the public and themselves safe
 4. Recognize the skills needed for the physical aspect of the fire service career
 5. Explain the minimum physical qualifications and preparation required to become a valued member of the fire service
 6. Demonstrate the use of fire equipment using proper body mechanics, lifting techniques and physical conditioning principles
5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
 Upon successful completion of this course, a student will be able to:
 1. Describe the daily requirements of a firefighter in the field
 2. Discuss different tools and their mechanical advantages and hazards
 3. Describe basic safety practices used by fire department personnel to keep the public and themselves safe
 4. Recognize the skills needed for the physical aspect of the fire service career
 5. Explain the minimum physical qualifications and preparation required to become a valued member of the fire service
 6. Demonstrate the use of fire equipment using proper body mechanics, lifting techniques and physical conditioning principles
6. **COURSE CONTENT:**
Lecture Content:
 1. Job Description Day to Day
 - A. Respond to emergency calls
 - B. Station duties
 - C. Apparatus and Equipment
 - a. Uniform
 - b. Personal Protective Equipment (PPE)
 - c. Tools and Equipment
 - d. Apparatus
 - D. Training
 - E. Public Education

- F. Safety
- 2. Fire Fighter Physical Fitness (NFPA 1582)
 - A. Aerobic Capacity
 - B. Body Composition
 - C. Grip Strength
 - D. Leg strength
 - E. Arm strength
 - F. Muscular Endurance
- 3. Tools and Equipment
 - A. Personal Protective Equipment
 - a. Turnouts
 - b. Self-Contained Breathing Apparatus (SCBA)
 - B. Identification
 - a. Basic
 - b. Structural
 - c. Wildland
 - C. Proper use
 - D. Maintenance
 - E. Repair
- 4. Mechanical Aptitude
 - A. Levers
 - B. Pulleys
 - C. Gears
 - D. Springs
 - E. Shop Arithmetic
 - a. Decimals
 - b. Percentages
 - c. Averages
 - d. Ratios
 - e. Fractions
 - f. Basic Math
- 5. Ropes and Knots
 - A. Rope Rescue Theory
 - B. NFPA Standards 1670, 1006, 1983
 - C. Rescuer Safety
 - D. Rigging Systems
 - E. Rescuer Terminology
 - F. Incident Management & Pre-Plan, Incident Size-Up
 - G. ICS System
- 6. Hazardous Materials Introduction

Lab Content:

- 1. Fire Fighter Physical Fitness (NFPA 1582)
 - A. Aerobic Capacity
 - B. Body Composition
 - C. Grip Strength
 - D. Leg strength
 - E. Arm strength
 - F. Muscular Endurance
- 2. Tools and Equipment
 - A. Personal Protective Equipment
 - a. Turnouts
 - b. Self-Contained Breathing Apparatus (SCBA)
 - B. Identification
 - a. Basic
 - b. Structural
 - c. Wildland
 - C. Proper use
 - D. Maintenance
 - E. Repair
- 3. Ropes and Knots

- A. Rope Rescue Theory
- B. NFPA Standards 1670, 1006, 1983
- C. Rescuer Safety
- D. Rigging Systems
- E. Rescuer Terminology
- F. Incident Management & Pre-Plan, Incident Size-Up
- G. ICS System

4. Hazardous Materials Introduction

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:

Writing Assignments:

- A. Firefighter Fatality Report
- B. Fitness Plan

Reading Assignments:

- A. Reading assignments from handouts

Other Outside Assignments:

- A. Interview a firefighter
- B. Class community service project

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Performance
- C. Class Work
- D. Group Projects
- E. Lab Activities
- F. Projects
- G. Simulation

10. REPRESENTATIVE TEXT(S):

Other:

- A. Instructor handouts

Origination Date: January 2020
Curriculum Committee Approval Date: February 2020
Effective Term: Fall 2020
Course Originator: Michelle Schneider