

**College of San Mateo**  
**Official Course Outline**

1. **COURSE ID:** FIRE 789    **TITLE:** Recruit Firefighter Training  
**Units:** 15.5 units   **Hours/Semester:** 128.0-144.0 Lecture hours; 360.0-405.0 Lab hours; and 256.0-288.0 Homework hours  
**Method of Grading:** Pass/No Pass Only  
**Prerequisite:** Sponsorship by a fire service agency as a professional firefighter. Successful completion of, or concurrent enrollment in, a State Fire Marshal certified basic firefighting academy or equivalent as determined by the Coordinator of the Fire Technology program. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. Successful completion of a National Registry certified Emergency Medical Technician: Basic course or equivalent as determined by the Coordinator of the Fire Technology program. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.
2. **COURSE DESIGNATION:**  
**Degree Credit**  
**Transfer credit:** none
3. **COURSE DESCRIPTIONS:**  
**Catalog Description:**  
This course provides training in basic firefighting knowledge and skills through lecture and manipulative instruction in all areas of responsibility for a firefighter. Topics include fire suppression, handling hose/ladders, operating hand and power tools, completing salvage functions, performing rescue operations, and responding to hazardous materials emergencies. Intensive, physically demanding course that meets daily for eight hours.
4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**  
Upon successful completion of this course, a student will meet the following outcomes:
  1. Recognize the tools used in firefighting.
  2. Discuss the techniques and strategies used in firefighting.
  3. Demonstrate the use of the tools, techniques and strategies used in firefighting.
  4. Demonstrate safe practices by using standard safety procedures.
5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**  
Upon successful completion of this course, a student will be able to:
  1. Recognize the tools used in firefighting.
  2. Discuss the techniques and strategies used in firefighting.
  3. Demonstrate the use of the tools, techniques and strategies used in firefighting.
  4. Demonstrate safe practices by using standard safety procedures.
6. **COURSE CONTENT:**  
**Lecture Content:**
  1. Firefighter Orientation
    - A. Fire Service History and Culture
    - B. Fire Service Mission and Organization
    - C. Fire Department Regulations
    - D. National Incident Management System (NIMS)
    - E. Interacting with Other Organizations
  2. Firefighter Safety and Health
    - A. Firefighter Injuries and Fatalities
    - B. Safety Standards for the Fire Service
    - C. Risk Management
    - D. Fire Department Safety and Health Programs
    - E. Safety on the Apparatus
    - F. Safety in Fire Stations and Facilities
    - G. Safety in Training
    - H. Emergency Operations
  3. Fire Behavior

- A. Science of Fire
- B. Fire Development in a Compartment
- C. Fire Control Theory
- 4. Building Construction
  - A. Construction Terminology
  - B. Common Building Materials
  - C. Construction Classifications
  - D. Firefighter Hazards Related to Building Construction
- 5. Firefighter Personal Protective Equipment (PPE)
  - A. Personal Protective Clothing
  - B. Respiratory Protection
  - C. Donning and Doffing Protective Breathing Apparatus
  - D. Inspection and Maintenance of Protective Breathing Apparatus
  - E. Using Self-Contained Breathing Apparatus (SCBA)
- 6. Portable Fire Extinguishers
  - A. Types of Portable Fire Extinguishers
  - B. Extinguishers and Agents for Metal Fires
  - C. Portable Fire Extinguisher Rating System
  - D. Selecting and Using Portable Fire Extinguishers
  - E. Inspecting Portable Fire Extinguishers
  - F. Damaged Portable Fire Extinguishers
  - G. Obsolete Portable Fire Extinguishers
- 7. Ropes and Knots
  - A. Types of Rope and Their Uses
  - B. Rope Materials
  - C. Rope Construction
  - D. Rope Maintenance
  - E. Storage of Life-Safety Rope
  - F. Webbing
  - G. Knots
  - H. Rope Hardware
    - I. Hoisting Tools and Equipment
    - J. Rescue Rope and Harness
- 8. Rescue and Extrication
  - A. Fireground Search and Rescue
  - B. Victim Removal
  - C. Rescue and Extrication Tools and Equipment
  - D. Vehicle Extrication
  - E. Technical Rescue Incidents
- 9. Forcible Entry
  - A. Forcible Entry Tools
  - B. Door Size-Up and Construction Features
  - C. Locks and Locking Devices
  - D. Non-Destructive Rapid Entry
  - E. Conventional Forcible Entry through Doors
  - F. Gates and Fences
  - G. Forcing Windows
  - H. Breaching Walls
    - I. Breaching Floors
- 10. Ground Ladders
  - A. Basic Parts of a Ladder
  - B. Ladder Inspection and Maintenance
  - C. Handling Ladders
  - D. Ladder Carries
  - E. Positioning Ground Ladders
  - F. General Procedures for Raising and Climbing Ladders
  - G. Ladder Raises
  - H. Procedures for Moving Ground Ladders
    - I. Securing the Ladder
    - J. Climbing Ladders

- K. Working from a Ladder
- L. Assisting a Victim down a Ladder
- 11. Ventilation
  - A. Reasons for Fireground Ventilation
  - B. Considerations Affecting the Decision to Ventilate
  - C. Vertical Ventilation
  - D. Horizontal Ventilation
  - E. Forced Ventilation
  - F. Effects of Building Systems on Fires
- 12. Water Supply
  - A. Principles of Water Supply Systems
  - B. Pressure Measurements
  - C. Fire Hydrants
  - D. Alternative Water Supplies
  - E. Rural Water Supply Operations
- 13. Fire Hose
  - A. Fire Hose Size
  - B. Causes and Prevention of Fire Hose Damage
  - C. General Care and Maintenance of Fire Hose
  - D. Fire Hose Couplings
  - E. Hose Appliances and Tools
  - F. Hose Rolls
  - G. Basic Hose Loads and Finishes
  - H. Pre-connected Hose Loads for Attack Lines
    - I. Supply Hose Lays
    - J. Handling Hoselines
    - K. Advancing Hoselines
    - L. Operating Hoselines
  - M. Service Testing Fire Hose
- 14. Fire Streams
  - A. Extinguishing Properties of Water
  - B. Pressure Loss or Gain
  - C. Water Hammer
  - D. Fire Stream Patterns and Nozzles
  - E. Fire Fighting Foam
  - F. Proportioners, Delivery Devices, and Generating Systems
  - G. Assembling a Foam Fire Stream System
  - H. Foam Application Techniques
    - I. Foam Hazards
- 15. Fire Control
  - A. Suppressing Structure Fires
  - B. Deploying Master Stream Devices
  - C. Suppressing Class B Fires
  - D. Suppressing Class C Fires
  - E. Suppressing Class D Fires
  - F. Company-Level Fire Tactics
- 16. Fire Detection, Alarm and Suppression Systems
  - A. Types of Alarm Systems
  - B. Automatic Sprinkler Systems
  - C. Operations at Fires in Protected Properties
- 17. Loss Control
  - A. Philosophy of Loss Control
  - B. Salvage
  - C. Overhaul
- 18. Protecting Fire Scene Evidence
  - A. Roles and Responsibilities
  - B. On the Scene: Observations and Conduct
  - C. Responsibilities After the Fire
- 19. Fire Department Communications
  - A. Communications Center Personnel

- B. Communications Center
- C. Receiving Non-Emergency Calls from the Public
- D. Receiving Emergency Calls from the Public
- E. Alerting Fire Department Personnel
- F. Radio Communications
- G. Incident Reports
- 20. Fire Prevention and Public Education
  - A. Fire and Life Safety Contacts
  - B. Fire Prevention
  - C. Fire Hazards
  - D. Fire Inspections
  - E. Fire Safety Surveys
  - F. Public Fire and Life Safety Education
  - G. Fire Station Tours
- 21. Introduction to Hazardous Materials
  - A. Personal Protective Equipment (PPE)
  - B. Health and Physical Hazards
  - C. Properties and Behavior
  - D. Hazardous Materials Identification
- 22. Operations at Hazardous Material Incidents
  - A. Priorities
  - B. Management Structure
  - C. HazMat Incident Mitigation
  - D. Strategic Goals and Tactical Objectives
  - E. Isolation and Scene Control
  - F. Notification
  - G. Protection
  - H. Decontamination
  - I. Rescue
  - J. Spill Control and Confinement
  - K. Crime Scene Management and Evidence Preservation
  - L. Recovery and Termination

**Lab Content:**

- 1. Firefighter Safety and Health
- 2. Firefighter Personal Protective Equipment (PPE)
- 3. Portable Fire Extinguishers
- 4. Ropes and Knots
- 5. Rescue and Extrication
- 6. Forcible Entry
- 7. Ground Ladders
- 8. Ventilation
- 9. Water Supply
- 10. Fire Hose
- 11. Fire Streams
- 12. Fire Control
- 13. Fire Detection, Alarm and Suppression Systems
- 14. Loss Control
- 15. Protecting Fire Scene Evidence
- 16. Fire Department Communications
- 17. Fire Prevention and Public Education
- 18. Introduction to Hazardous Materials
- 19. Operations at Hazardous Material Incidents

**7. REPRESENTATIVE METHODS OF INSTRUCTION:**

Typical methods of instruction may include:

- A. Lecture
- B. Field Experience
- C. Observation and Demonstration

**8. REPRESENTATIVE ASSIGNMENTS**

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

**Reading Assignments:**

Assigned reading for class session

**Other Outside Assignments:**

Skills practice

**9. REPRESENTATIVE METHODS OF EVALUATION**

Representative methods of evaluation may include:

- A. Quizzes
- B. Written examination
- C. Skills evaluation exercises

**10. REPRESENTATIVE TEXT(S):**

Possible textbooks include:

- A. IFSTA. *Essentials of Fire Fighting and Fire Department Operations*, 6th ed. IFSTA, 2013

**Origination Date:** October 2018

**Curriculum Committee Approval Date:** January 2019

**Effective Term:** Fall 2019

**Course Originator:** Michelle Schneider