

**FIRE 208.1 Course Outline as of Summer 2011****CATALOG INFORMATION**

Dept and Nbr: FIRE 208.1 Title: FIREFIGHTER I ACADEMY

Full Title: Firefighter I Academy

Last Reviewed: 10/27/2014

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	12.00	Lecture Scheduled	5.00	24	Lecture Scheduled	120.00
Minimum	12.00	Lab Scheduled	11.25	10	Lab Scheduled	270.00
		Contact DHR	0		Contact DHR	0
		Contact Total	16.25		Contact Total	390.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 240.00

Total Student Learning Hours: 630.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**

An intensive series of theoretical and practical lessons and prescribed activities which, when combined with Emergency Care, meet the educational requirements for Firefighter I certification by the State Fire Marshal's Office and Board of Fire Services.

**Prerequisites/Corequisites:**

Course Completion of FIRE 71, FIRE 208, and EMC 100

**Recommended Preparation:**

Eligibility for ENGL 100 or ESL 100

**Limits on Enrollment:**

Current Class "C" California Driver License. Medical History Statement signed by a physician for participation in a rigorous fitness program and other physical activities including climbing, rappelling, carrying and lifting heavy equipment (65-100 lbs.), rescue/body drags (165 lbs.) and live fire exercises (crawling and pulling pressurized hose lines).

**Schedule of Classes Information:**

Description: An intensive series of theoretical and practical lessons and exercises which satisfy the education requirements for certification as Firefighter I by the State Board of Fire Services. Students who meet the prerequisite course work requirements and the academic standards set by

the program will be randomly selected and notified by the Department. (Grade Only)

Prerequisites/Corequisites: Course Completion of FIRE 71, FIRE 208, and EMC 100

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment: Current Class "C" California Driver License. Medical History Statement signed by a physician for participation in a rigorous fitness program and other physical activities including climbing, rappelling, carrying and lifting heavy equipment (65-100 lbs.), rescue/body drags (165 lbs.) and live fire exercises (crawling and pulling pressurized hose lines).

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	<b>Effective:</b>	<b>Inactive:</b>
<b>CSU GE:</b>	<b>Transfer Area</b>	<b>Effective:</b>	<b>Inactive:</b>

<b>IGETC:</b>	<b>Transfer Area</b>	<b>Effective:</b>	<b>Inactive:</b>
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<b>CSU Transfer:</b>	<b>Effective:</b>	<b>Inactive:</b>
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<b>UC Transfer:</b>	<b>Effective:</b>	<b>Inactive:</b>
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**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

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

1. Identify the roles, functions, and responsibilities of the professional firefighter.
2. Demonstrate the proficiencies needed to function in a hazardous atmosphere through the use of protective clothing and self contained breathing apparatus.
3. Define the necessary knowledge and understanding of fire chemistry and behavior.
4. Recognize and demonstrate the proficiencies needed to safely operate manual and power driven tools, equipment, and techniques, individually and as a member of a team.
5. List and describe the practices necessary to utilize modern fire suppression equipment and techniques, individually and as a member of a team.
6. Define and identify the procedure necessary to protect property from non-fire damage through the use of salvage techniques and equipment.
7. Identify the necessary indicators that determine the cause and origin of fires, and to recognize and protect evidence of arson.
8. Demonstrate knowledge of the roles and functions of firefighters.

9. Name the basic properties of fire chemistry and behavior.
10. List the different firefighting tools and equipment.
11. Name wildland terminology and demonstrate an awareness of wildland firefighting safety.
12. List wildland tools and equipment and identify wildland fire behavior
13. Demonstrate the functions necessary to become a member of a fire suppression team, through hands-on performance, and live fire exercises.
14. Demonstrate the skills necessary to complete the Firefighter I physical fitness agility examination.

## **Topics and Scope:**

### **I. Organization and Responsibility**

#### **A. Laws and Regulations**

1. Government organizations
2. Personnel rules and regulations
3. Retirement systems and compensation laws
4. Agency rules and regulations

#### **B. Personnel and Functions**

1. Fire department functions
2. Duties of personnel
3. Personal development programs
4. Obedience and obligation to duty

#### **C. Professional Organizations**

1. National, State, and local organizations
2. Periodical publications

### **II. Apparatus and Equipment Operation**

#### **A. Forcible Entry and Miscellaneous Tools**

1. Cutting, boring, and sawing tools
2. Battering, carrying, digging, prying, and striking tools
3. Lighting equipment
4. Ventilation equipment

#### **B. Lifting and Hoisting Equipment**

1. Ropes, knots, and hitches
2. Lifting and spreading equipment
3. Hoisting and pulling equipment

#### **C. Extinguishers and Proportioners**

1. Pressure type extinguishers
2. Foam generators
3. Water-additive proportioners

#### **D. Hose, Nozzles and Fittings**

1. Coupling hose
2. Roll, fold and carry hose
3. Nozzles, valves, fittings and other devices
4. Siamese and wye lines
5. Extend and reduce lines
6. Load hose on apparatus

#### **E. Hose Evolutions**

1. Operate hydrants
2. Lay single lines
3. Lay multiple lines

4. Connect lines to auxiliary appliances
5. Master stream appliances
6. Operate lines above and below street level

#### F. Ladders

1. Carry, raise, and lower ladders
2. Climb and work from ladders
3. Ladders as improvised equipment

#### G. Building Equipment

1. Elevators
2. Fire protection systems
3. Fire escape systems

#### H. Rescue Tools and Equipment

1. Breathing apparatus
2. Lifelines and belts
3. Protective clothing

### III. Water Supply

#### A. Nozzle Stream

1. Range of fire streams
2. Reaction of fire streams

#### B. Hydrants and Reservoirs

1. Size and gallons per minute
2. Pumps and engines

### IV. Fire Control

#### A. Fire Behavior

1. Classes of fire
2. Theory and fundamentals of combustion
3. Theory of heat transfer
4. Theory of extinguishment
5. Fire characteristics of solids
6. Fire characteristics of flammable liquids and gasses
7. Products of combustion
8. Hazardous and explosive materials

#### B. Extinguishment

1. Types of agents
2. Methods used for different fires

### V. Wildland Interface Firefighting

#### A. Orientation

1. Wildland firefighting terminology
2. Fundamentals of heat transfer
3. Wildland fire behavior
  - a. Fuels
  - b. Topography
  - c. Weather

#### B. Tactics and Strategy

1. Parts of a wildland
2. Incident Command System

#### C. Firefighter Safety and Survival

1. Fire shelters
2. Protective clothing
3. Look up, look down, look around
4. Urban interface hazards

#### D. Suppression Methods

1. Wildland tools and equipment
  2. Additional resources
- VI. Salvage and Overhaul
- A. Procedures for Making Buildings/Areas Safe After an Emergency
  - B. Common Types of Fire Service Salvage Equipment
  - C. Procedures to Restore Premises
  - D. Preservation of Evidence
    1. Cause and origin of fires
    2. Properties of fire investigation
- VII. Hazardous Materials
- A. Hazardous Materials Definitions
  - B. Hazardous Materials Labeling System
  - C. Use of Department of Transportation Response Guidebook
- VIII. Fire Alarm Communications
- A. Clear Radio Text Terminology
  - B. Fire Department Emergency Communication Systems
- IX. Vehicle Extrication
- A. Principles of Vehicular Extrication
  - B. Equipment and Resources for Auto Extrication
- X. Physical Fitness
- A. Physical Abilities Training
  - B. Firefighter Physical Abilities Examination
- XI. Rescue Practices
- A. Components of Rescue Operations
  - B. Confined Space Awareness
  - C. Lifts, Carries and Stabilization

### **Assignment:**

Assignments include:

1. Reading approximately 50 pages per week from assigned text.
2. Memorization of mandated Firefighter I policies and procedures as assigned
3. Practice six critical skills and prepare for skills demonstrations and scenarios (self-contained breathing apparatus, ropes and knots, ladders, hose and fire streams, physical fitness ability, and wildland firefighting)
4. Prepare for tactics and strategy exercise/scenario utilizing incident command system components and hazardous material procedures.
5. Daily/weekly quizzes seven block exams
6. Midterm physical fitness, written and skills exam; final physical fitness, written skills exam
7. Attendance minimum of 360 hours of scheduled instruction
8. Inspection and written report on assigned activities

### **Methods of Evaluation/Basis of Grade:**

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

8 - 12 reports
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Writing 5 - 10%
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**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Decision-making scenarios

Problem solving  
5 - 10%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performance, physical fitness, and performance exams

Skill Demonstrations  
25 - 40%

**Exams:** All forms of formal testing, other than skill performance exams.

Quizzes and exams

Exams  
30 - 40%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Attendance at a minimum of 360 hours of instruction

Other Category  
20 - 30%

### **Representative Textbooks and Materials:**

Essentials of Firefighting, 5th Edition; International Fire Service Training Association

Hazardous Materials First Responder Syllabus "Operations", California Specialized Training Institution

Emergency Response Guidebook, Department of Transportation, 2008

Ethics, Respect and Work Relationships Syllabus, instructor prepared materials

Incident Command System, Syllabus, National Wildfire Coordinating Group, 2006

Critical Stress Debriefing, Syllabus, instructor prepared materials

Performance Standards, Firefighter I Academy, 2010

Procedure Manual, Firefighter I Academy, 2010

Report Writing, Syllabus, instructor prepared materials

California Department of Forestry and Fire Protection, Syllabus, 2006

Vehicle Extrication Techniques, Holmatro Rescue Equipment, 2003

Personal Exposure Reporting, California Professional Firefighters Association, 2009