

FIRE 208.1 Course Outline as of Spring 2013**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	4.33	25	Lecture Scheduled	108.25
Minimum	12.00	Lab Scheduled	12.50	10	Lab Scheduled	312.50
		Contact DHR	0		Contact DHR	0
		Contact Total	16.83		Contact Total	420.75
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 216.50

Total Student Learning Hours: 637.25

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, combined with Emergency Care, meet the educational requirements for Firefighter I certification as established by the State Board of Fire Services. Course also includes two overnight sessions. Upon successful completion of the wildland component, students also receive a Cal Fire Basic Firefighter Certificate.

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 running a half mile, 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). Said statement is valid one year from the date of endorsement.

Schedule of Classes Information:

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Transfer Credit:

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

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:

IGETC:	Transfer Area	Effective:	Inactive:
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CSU Transfer:	Effective:	Inactive:
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UC Transfer:	Effective:	Inactive:
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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 skills needed to function in a hazardous atmosphere through the use of protective clothing and self contained breathing apparatus.
3. Demonstrate an understanding of fire chemistry and its influence on structure fires.
4. Recognize and demonstrate the proficiencies needed to safely operate manual and power driven tools and equipment both 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. Demonstrate the procedures employed to protect property from non-fire damage through the use of salvage techniques and equipment.
7. Describe the indicators that are used to 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. Describe the basic properties of fire chemistry.

10. List the different tools and equipment used in wildland and structural firefighting.
11. Define the terminology used in wildland firefighting.
12. List and describe the factors that influence wildland fire behavior and the proper application of wildland firefighting tools and equipment.
13. Demonstrate the duties necessary to be a member of a fire suppression team, through the use of 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. Agency rules and regulations
4. The Standardized Emergency Management System (SEMS) and the National Incident

Management

Systems (NIMS)

B. Personnel and Functions

1. Fire department functions
2. Duties of personnel
3. Personal development programs
4. Obedience and obligation to duty
5. The master mutual aid system

C. Professional Organizations

1. National, State, and local organizations
2. Professional 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. Fire Extinguishers and Eductors

1. Pressure type extinguishers
2. Foam generators
3. Foam eductors

D. Hose, Nozzles and Fittings

1. Hose characteristics
2. Coupling hose
3. Rolling, folding and carrying hose
4. Nozzles, valves, fittings and other appliances
5. Extending and reducing lines
6. Load hose on apparatus

E. Hose Evolutions

1. Operate hydrants
2. Laying single lines

3. Laying multiple lines
4. Connect lines to hose appliances
5. Master stream appliances
6. Operating lines above and below street level

F. Ladders

1. Types of ladders
2. Carrying, raising, and lowering ladders
3. Climbing and working from ladders
4. Ladders as improvised equipment
5. Care and maintenance of ladders

G. Building Equipment

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

H. Rescue Tools and Equipment

1. Self-contained breathing apparatus (SCBA's)
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 Firefighting

A. Orientation

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

4. ICS

B. Firefighter Safety and Survival

1. Fire shelters
2. Protective clothing
3. Lookouts, communications, escape routes, safety zones (LCES)
4. Urban interface hazards

- C. Suppression Methods
 - 1. Tactics and strategy
 - 2. Wildland tools and equipment
 - 3. 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. Fire cause and origin
 - 2. Components of a fire investigation
- VII. Hazardous Materials
 - A. Hazardous materials definitions
 - B. Hazardous materials labeling system
 - C. Use of Department of Transportation Incident Response Guidebook (ERG)
- 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 100 pages per week from assigned text and handout materials.
2. Memorization of academy policies and procedures assigned.
3. Practice and demonstration of core firefighting skills including SCBA's, ropes and knots, ladders, hose, fire streams, physical fitness tests, and wildland firefighting.
4. Practice and demonstration of firefighting, rescue and hazardous materials scenarios and evolutions utilizing the ICS including participation in live fire exercises.
5. 3 - 10 fire related written reports and exercises.
6. Daily/weekly quizzes and seven block exams.
7. Midterm and final physical fitness, written and skills exams.
8. Attendance in a minimum of 400 hours of scheduled instruction including two overnight exercises and all core competencies.

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

Writing
5 - 10%

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 420 hours of instruction

Other Category
20 - 30%

Representative Textbooks and Materials:

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

Santa Rosa Junior College Firefighter I Academy Procedures Manual, 2012

Santa Rosa Junior College Firefighter I Academy Performance Standards, 2012

California Department of Forestry and Fire Protection Firefighter Basic Training Syllabus, 2010

Hazardous Materials First Responder syllabus "Operations", California Specialized Training Institution, 2009

Emergency Response Guidebook, Department of Transportation, 2012

S-130 Firefighter Workbook, National wildfire Coordinating Group (NWCG), 2003

S-131 Firefighter Type I Workbook, NWCG, 2004

S-190 Introduction to Wildland Fire Behavior, NWCG, 2006

Fireline Handbook, NWCG, 2004

Incident Response Pocket Guide (IRPG), 2010

Incident Command System Workbook, NWCG, 2006

OCS 420-1 Field Operations Guide, Firescope, 2007

Holmatro's Vehicle Extrication Techniques, B. Morris, 2009

Critical Stress Debriefing, Syllabus, instructor prepared materials

Report Writing, Syllabus, instructor prepared materials

Personal Exposure Reporting, California Professional Firefighters Association, 2009