

Course Outline

COURSE: JFT 14 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2017 **CURRICULUM APPROVAL DATE:** 02/27/2017

SHORT TITLE: CDF ACADEMY

LONG TITLE: Fire CDF Academy

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
2 TO 4	18	Lecture:	1.1 TO 1.6	19.8 TO 28.8
		Lab:	3.4 TO 7.3	61.2 TO 131.4
		Other:	0	0
		Total:	4.5 TO 8.9	81 TO 160.2

COURSE DESCRIPTION:

This course provides a basic firefighter course oriented toward the equipment utilized on CDF engines. Fundamentals of wildland fire control, pumping skills, incident command and techniques of controlling other emergency incidents are covered with a strong safety perspective. The course is structured with a maximum emphasis on demonstration, student application and performance examinations.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

02 - Lecture and/or discussion

03 - Lecture/Laboratory

04 - Laboratory/Studio/Activity

STUDENT LEARNING OUTCOMES:

1. Identify Fire Service Organizations and their functions.

Measure of assessment: Written exam

Year assessed, or planned year of assessment: 2016

Semester: Spring

2. Don the wildland fire personal protective clothing under simulated fire conditions while wearing the CDF work uniform.

Measure of assessment: Skill demonstration

Year assessed, or planned year of assessment: 2016

Semester: Fall

3. Describe what occurs in the combustion process, list the components of the fire tetrahedron, types of heat transfer, and the products of combustion.

Measure of assessment: Written exam

Year assessed, or planned year of assessment: 2016

Semester: Fall

4. List and describe the types equipment utilized on CDF engines.

Measure of assessment: Skills demonstration, Written Exam

Year assessed, or planned year of assessment: 2016

Semester: Fall

5. Identify and demonstrate the rules and regulations for working with inmate fire fighters.

Measure of assessment: Written Exam, Skills Demonstration

Year assessed, or planned year of assessment: 2016

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 02/27/2017

Lecture Content:

I. CDF Mission & Organization

A. Fire Service Organization

B. Mutual Aid Plans

C. Labor Organizations

D. California Joint Apprenticeship
Program

E. California Inmate Fire Crews

F. Sexual Harassment/EEO

II. Operations

A. Station Orientation

B. Responding to An Emergency Call

C. Telephone Procedures

D. CDF Living Quarters

E. Operations, Kitchen

F. Garage, Shop, & Fueling Areas

G. Emergency Rations

H. Dealing with the Public

III. Introduction to ICS

A. ICS Orientation I-100

B. Incident Base Orientation

C. Incident Command Decision Making

IV. Fire Physics & Chemistry

A. Basic Fire Chemistry

B. Combustion, Products

C. Heat Transfer; Fundamentals

D. Heat Measurement

- E. Phases of Fire
- F. Pyrolysis, Flashover & Backdraft
- G. Physical Properties of Explosions
- H. Flammable & Combustible Liquids
- I. Extinguishing Agents
- J. Fire Fighting Foam
- K. Extinguishing Agents for Electrical Fires
- V. Water Supply Systems
 - A. Hydrants
 - B. Water Systems
 - C. Water Tank
- VI. Fire Prevention Planning
 - A. Fire Department Codes, Ordinances and Regulations
 - B. CDF Fire Prevention Programs
 - C. Instructional Techniques for Public Education
- Lab Content:
 - I. Personal Protective Equipment
 - A. Wildland Safety Uniform
 - B. Don Personal Protective Clothing
 - C. Structure Protective Clothing
 - D. Self Contained Breathing Apparatus (SCBA)
 - II. Firefighter safety
 - A. 10 Standard Firefighting Orders
 - B. Lookouts, Communications, Escape Routes, and Safety Zones
 - C. 18 Fire Situations that shout "Watch Out"
 - D. Fire Fatalities
 - E. Fireline Hazards
 - F. Fire Entrapment
 - G. Deploy a Canister Fire Resistive Blanket Performance Exam
 - H. Curtain; How to Use The One Piece Fire Curtain
 - I. How to Use The One-Piece - Roll Down Fire Resistive Curtain
 - J. Using a Bulldozer
 - K. Deploy a Fire Shelter
 - III. Hose
 - A. Hose Construction & Care
 - B. Couplings
 - C. Maintenance of Records
 - D. Hose Roll
 - E. How to Couple Hose
 - F. How to Connect Nozzle
 - G. Hose Bed
 - H. Hoselay
 - IV. Hose Appliance and Hose Tools
 - A. Hose Protection Devices
 - B. Hose Clamp
 - C. Hose Hoist Tool

- D. Fire Streams
- E. Nozzles
- F. Master Streams
- G. Ladder Pipe
- H. Hydrant Valve, Four Way
- I. Foam Proportioners, Eductors, & Nozzles
- V. Tools and Equipment
 - A. Road Flares
 - B. Fuses as Firing Tools
 - C. Traffic Control
 - D. Water Vacuums
 - E. Jacks
 - F. Lanterns
 - G. Back Pump
 - H. Backfire Torch
- VI. Power Tools
 - A. Lighting Equipment
 - B. Saw
 - C. Inspection & Maintenance
- VII. Aircraft
 - A. Helicopters
- VIII. Mobile Equipment
 - A. Fire Apparatus Identification
 - B. Fire Engine Driving Procedures
 - C. Mobile Equipment Warning Devices
 - D. Chock Blocks, Seat Belts and Roll Bars
 - E. Trailers
 - F. Loading/Unloading a Dozer
 - G. Bulldozer Swamper Hand Signals
 - H. Water Tenders
- IX. Pumping
 - A. Pump Theory - Types of Pumps
 - B. Pump Cavitation
 - C. Pump Gauges and Flowmeters
 - D. Fire Engine Systems
 - E. Pump Ratings
 - F. Pump from Engine Tanks
 - G. Portable Waterous Floto Pump
- X. Hand Tools
 - A. Brush Hook
 - B. Pulaski
 - C. Axes
 - D. Shovels
 - E. California Barron Tool
 - F. Pike Pole
- XI. Forcible Entry Tools
 - A. Breaking or Pulling Locks
 - B. Forcing Doors

- C. Breaking Window Glass
- D. Opening Floors
- E. Opening Walls and Ceilings
- XII. Portable Fire Extinguishers
 - A. Regulations and Servicing
 - B. Basic Operation and Safety
 - C. Inspection, Maintenance and Testing
- XIII. Ladders
 - A. Types
 - B. Safety Practices
 - C. Inspection and Maintenance
 - D. Raise, Carry, Climb and lower
- XIV. Ropes and Knots
 - A. Rope Construction and Use
 - B. Inspection and Maintenance
 - C. Basic Terminology
 - D. How to Tie Knots
 - E. Bowlines
 - F. Hoisting
- XV. Vegetation Fires
 - A. Wildland Firefighting Terminology
 - B. Parts of Wildland Fire
 - C. Wildland Fire Behavior
 - D. Topography
 - E. Conditions
 - F. Structure Protection
 - G. Mobile Attack
 - H. Handtools
- XVI. Structure Fire
 - A. Initial Attack and Incident Organization
 - B. Strategies
 - C. Fire Safety
 - D. Rescue Tactics
 - E. Exposure Protection
 - F. Ventilation
 - G. Fog Stream
- XVII. Salvage and Overhaul
 - A. Safety
 - B. Procedures
 - C. Equipment
 - D. Covers
- XVIII. Building Construction
 - A. Structural Design, Characteristics and Terminology
 - B. Structural Components
 - C. Indications of Potential Building Collapse
- XIX. Fire Protection System
 - A. Fire Suppression Systems
 - B. Standpipe Systems

- C. Procedures
- D. Detectors
- E. Sprinklers
- XX. Pre Fire Planning
 - A. Pre Planning
- XXI. Special Fires
 - A. Vehicle
 - B. Combustible Metals
- XXII. Emergency Medical Services
 - A. Public Safety First Aid
 - B. Supplies
 - C. Burn Treatment
 - D. Burn Pack
 - E. Resuscitation Equipment
 - F. CPR for Public Safety
 - G. Communicable Disease Awareness
 - H. Sudden Infant Death Syndrome
 - I. Child and Elderly Abuse
- XXIII. Rescue
 - A. Trapped Victims
 - B. Confined Space Awareness
- XXIV. Vehicle Extraction
 - A. Vehicle stabilization
 - B. Gaining Access
 - C. Rescue Tools
- XXV. Special Incident
 - A. Vehicle Accident
 - B. Scene Management
 - C. Traffic Control
 - D. Electrical Equipment

METHODS OF INSTRUCTION:

Lecture, lab, discussion and demonstration will serve as the medium of instruction.

METHODS OF EVALUATION:

Problem-solving assignments

Percent of total grade: 30.00 %

Class Scenario Training Exercises

Skill demonstrations

Percent of total grade: 45.00 %

Class Performance/s; Field Work; Performance Exams

Objective examinations

Percent of total grade: 25.00 %

Multiple Choice; True/False; Matching Items; Other: Performance Exam

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours:

Assignment Description: Reading class text

Required Outside Hours:

Assignment Description: Practice Skills

REPRESENTATIVE TEXTBOOKS:

Required Representative Textbooks

California Fire Marsha. California Department of Forestry Firefighter 1 - Basic Manual. California Fire Marshal,2015.

Reading Level of Text, Grade: 12 Verified by: Doug Achterman

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 199870

UC TRANSFER:

Not Transferable

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department: JFT

CSU Crosswalk Course Number: 14

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: C

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000060607

Sports/Physical Education Course: N

Taxonomy of Program: 213300