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

<table>
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<tr>
<th>Units</th>
<th>Number of Weeks</th>
<th>Type</th>
<th>Contact Hours/Week</th>
<th>Total Contact Hours</th>
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<td>2 TO 4</td>
<td>18</td>
<td>Lecture:</td>
<td>1.1 TO 1.6</td>
<td>19.8 TO 28.8</td>
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<td></td>
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<td>Lab:</td>
<td>3.4 TO 7.3</td>
<td>61.2 TO 131.4</td>
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<td>Other:</td>
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<td>Total:</td>
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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
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

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

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

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/EOO
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

3/3/2017
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
Reading Level of Text, Grade: 12 Verified by: Doug Achteman

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

3/3/2017