#### FIRE 204C Course Outline as of Fall 2017

## **CATALOG INFORMATION**

Dept and Nbr: FIRE 204C Title: COMMAND 1C

Full Title: Command 1C Last Reviewed: 1/27/2014

Units		Course Hours per Week		Nbr of Weeks	<b>Course Hours Total</b>	
Maximum	2.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	0.25	5	Lab Scheduled	4.38
		Contact DHR	0		Contact DHR	0
		Contact Total	2.25		Contact Total	39.38
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 109.38

Title 5 Category: AA Degree Applicable

Grading: P/NP Only

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

Also Listed As:

Formerly:

# **Catalog Description:**

This course is designed to provide the structural company officer with the information necessary to conduct effective firefighting operations in the wildland urban interface (WUI). Topics include a brief history of firefighting in the WUI, community partnership initiatives, jurisdictional authority and responsibilities, company officer responsibilities and leadership fundamentals, California fire behavior, collecting and using wildland fire weather, fuels and topographical information, managing risk at a WUI fire, pre-incident considerations, readiness of assigned personnel and equipment, radio communications, the availability and capability of resources and their needs, size-up and report on conditions, WUI fire suppression considerations, WUI plan of action, mobilization and response to an expanding incident, written incident action plan (IAP) familiarization and administrative duties of mobilization. Upon successful completion, the student will be awarded a Command 1C certificate from the State Fire Marshal's office.

### **Prerequisites/Corequisites:**

Course Completion of FIRE 204A

# **Recommended Preparation:**

#### **Limits on Enrollment:**

The State Fire Marshal's Office requires that students successfully complete State Fire Training Course S-290.

#### **Schedule of Classes Information:**

Description: This course is designed to provide the structural company officer with the information necessary to conduct effective firefighting operations in the wildland urban interface (WUI). Topics include a brief history of firefighting in the WUI, community partnership initiatives, jurisdictional authority and responsibilities, company officer responsibilities and leadership fundamentals, California fire behavior, collecting and using wildland fire weather, fuels and topographical information, managing risk at a WUI fire, pre-incident considerations, readiness of assigned personnel and equipment, radio communications, the availability and capability of resources and their needs, size-up and report on conditions, WUI fire suppression considerations, WUI plan of action, mobilization and response to an expanding incident, written incident action plan (IAP) familiarization and administrative duties of mobilization. Upon successful completion, the student will be awarded a Command 1C certificate from the State Fire Marshal's office. (P/NP Only)

Prerequisites/Corequisites: Course Completion of FIRE 204A

Recommended:

Limits on Enrollment: The State Fire Marshal's Office requires that students successfully complete State Fire Training Course S-290.

**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:

**CSU Transfer:** Effective: Inactive:

**UC Transfer:** Effective: Inactive:

CID:

# **Certificate/Major Applicable:**

Certificate Applicable Course

# **COURSE CONTENT**

# **Outcomes and Objectives:**

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

- 1. Identify the levels of certification, courses and other requirements in the fire officer certification track.
- 2. Describe the WUI environment and its impact on firefighting.
- 3. Describe the steps to develop a plan to empower homeowners to reduce their homes and properties to the vulnerability of wildfires.
- 4. Describe the concept of jurisdictional responsibility and the relationship of authority having jurisdiction (AHJ) and assisting/cooperating agencies.

- 5. Describe how to lead and motivate firefighters to their performance meets the expectations of the AHI.
- 6. Identify the potential actual and potential risks created by fire behavior in the WUI.
- 7. Describe how to collect fire behavior forecasting information using the systems and tools available to firefighters.
- 8. Demonstrate the ability to recognize and communicate hazards and unsafe situations in a WUI fire.
- 9. Demonstrate the ability to plan appropriate fire suppression actions that minimize risk in WUI fires.
- 10. Demonstrate the ability to evaluate readiness of personnel and equipment for WUI fire suppression duties.
- 11. Demonstrate the ability to operate radio communications equipment properly and in accordance with the policy of the AHJ.
- 12. Describe the resources used in a WUI fire and the most appropriate use for each resource for a given situation.
- 13. Demonstrate the ability to conduct a size-up of a WUI fire including critical factors and required incident information.
- 14. Demonstrate the ability to implement a plan of action at a WUI fire that mitigates the incident through the appropriate application of resources.
- 15. Demonstrate the ability to develop a plan of action based on current and forecasted fire behavior.
- 16. Demonstrate the ability to mobilize and respond to an expanding incident and provide all the necessary documentation.
- 17. Describe the purpose and function of each component of an IAP in detail.
- 18. Demonstrate the ability to manage a mobilized resource at an expanding incident following all administrative procedures.

# **Topics and Scope:**

- I. Introduction
  - a. Orientation and administration
  - b. Certification levels in the Fire Officer certification process
    - 1. Company officer
    - 2. Chief officer
    - 3. Executive fire officer
  - c. Courses required for fire officer
  - d. Capstone task book requirements
- II. The WUI Environment
  - a. Fire Suppression in the WUI environment
    - 1. WUI terms and definitions
    - 2. WUI hazards and limitations
    - 3. Historic WUI fires and their impact on firefighting and training
    - 4. WUI firefighting challenges
    - 5. Common denominators of tragic and near miss WUI fires
  - b. Community partnership initiatives
    - 1. Purpose of fire safe councils
    - 2. Ready, Set, Go program
    - 3. Property and structure protection activities
    - 4. WUI construction requirements and features
    - 5. Defensible space and structure survivability
    - 6. Public evacuation planning
- III. Authority And Responsibility

- a. Jurisdictional authority and responsibility
  - 1. Federal, state and local responsibility areas
  - 2. Direction protection areas
  - 3. State and Federal mutual aid agreements
  - 4. Local mutual aid agreements
  - 5. Working with assisting and cooperating agencies
  - 6. Team building with cooperating agencies
  - 7. Working with the media
  - 8. Private industry fire response
- b. WUI company officer responsibilities and leadership fundamentals
  - 1. Leadership motivation and levels of leadership
  - 2. Situational leadership
  - 3. The leadership environment
  - 4. Sources of power
  - 5. Different leadership styles
  - 6. Leadership guiding values
  - 7. Command presence
  - 8. Phases of crew cohesion
  - 9. Intracrew and intercrew cohesion
  - 10. Crew safety
  - 11. Code of conduct at a WUI fire
  - 12. Leader's intent and appropriate action

### IV. Fire Behavior Forecasting

- a. Fire behavior in California's fire environment
  - 1. Impact of California's geographic locations have on fire behavior
  - 2. Wind types and their influence on fire behavior
  - 3. Thunderstorms and downdrafts
  - 4. Fuel characteristics that affect wildland fire behavior
  - 5. Topographical features that affect wildland fire behavior
  - 6. Microclimates and their effect on wildfires
  - 7. Seasonal variability and its effect on fuels
  - 8. Special atmospheric considerations
  - 9. Extreme fire behavior
  - 10. Smoke columns and colors
  - 11. WUI fire behavior and tactical options
- b. Collecting and using wildland fire weather, fuels and topographical information
  - 1. The Campbell Predication System
  - 2. Fireline Handbook weather information
  - 3. Computer fire weather applications
  - 4. Collection and use of intelligence from internet and radio broadcasts
  - 5. Use of a field belt weather kit
  - 6. Use of electronic pocket weather systems
- V. Managing Risk and Firefighter Safety
  - 1. Situational awareness
  - 2. Rules of engagement
  - 3. The primary, alternative, contingency emergency (PACE) tactical engagement

#### process

4. The defend, reinforce, advance, withdraw and delay (DRAW-D) engagement

### levels

- 5. Lookouts, communications, escape routes and safety zones
- 6. WUI safety and survival
- 7. The survival, fire environment, access, construction, time constraints and stay or

### go (S-FACTS) safety assessment process

- 8. Decision points
- 9. Rehabilitation of responders
- 10. Risk management process
- 11. Risk refusal
- 12. Decision making process
- 13. Decision-making errors on past wildland fires
- 14. Seven barriers to situational awareness and decision making
- 15. Fire steep assertive statement process

## VI. WUI Incident Operations

- a. Pre-incident considerations
  - 1. Evaluation of potential risks
  - 2. The pre-incident planning process
  - 3. Weather preparedness
  - 4. Staffing augmentation plans
- b. Readiness of assigned personnel and equipment
  - 1. Personnel preparation
  - 2. Engine preparation
  - 3. Recommended equipment for Type-3 engines
  - 4. Wildland and structural personal protective equipment (PPE)
- c. Radio communications
  - 1. Use of radio nets
  - 2. ICS communication plans
  - 3. Radio capabilities
  - 4. Communication interoperability
  - 5. Radio procedures
  - 6. Communication problems
  - 7. Radio troubleshooting
  - 8. Firefighter emergency traffic
- d. Resource needs, availability and capability
  - 1. Determining resource needs
  - 2. Capabilities and benefits of different engine types
  - 3. Considerations when working with Type-3 engines
  - 4. Hand crew typing
  - 5. Bulldozer typing
  - 6. Performance standards for engines, hand crews and dozers
  - 7. Strike team typing
  - 8. Water tender typing
  - 9. Aircraft typing
  - 10. Helicopter and helitack crew typing
  - 11. Air tanker typing
  - 12. Specialized WUI equipment and personnel
- e. Size-up and report on conditions
  - 1. Pre-incident awareness considerations
  - 2. Dispatch information
  - 3. Information gathered en-route
  - 4. Critical size-up factors
  - 5. Report on conditions
- f. WUI fire suppression considerations
  - 1. WUI incident priorities
  - 2. SMART incident control objectives
  - 3. WUI fire suppression strategies

- 4. WUI tactical actions and maneuvers
- 5. The three categories of structural triage
- 6. The S-FACT structural triage checklist
- 7. The top down structure triage method
- 8. The three primary structure defense tactical options
- 9. The five secondary structural defense tactical options
- 10. Structure fire engagement guidelines in the WUI
- 11. Perimeter control attack and control methods
- 12. Fire control lines
- 13. Firing operations considerations
- 14. Fixed wing aircraft utilization, effectiveness and limitations
- 15. Rotor wing aircraft utilization, effectiveness and limitations
- 16. Firefighting chemicals used in WUI fires
- g. WUI plan of action
  - 1. Components of the initial attack management cycle
  - 2. Components of the planning cycle
  - 3. Application of ICS at a WUI fire
  - 4. Components of an ICS 201 used at a WUI fire
  - 5. Procedures for the transfer of command

## VII. Mobilization To An Expanding WUI Incident

- a. Mobilization and response to an expanding incident
  - 1. Types of mobilization for initial attack, immediate need and planned need
  - 2. Critical dispatch and travel information
  - 3. Documentation necessary for mobilization
  - 4. Logistical support available enroute
- b. Written IAP familiarization
  - 1. Components and needs of an IAP
  - 2. Map Symbology
  - 3. STAND map acronym
- c. Administrative duties of mobilization
  - 1. Check-in locations
  - 2. Resource status options at an incident
  - 3. Activities that occur in staging
  - 4. Communication plan information
  - 5. Briefing and work assignment procedures
  - 6. Incident administrative and logistical support
  - 7. Incident demobilization procedures
  - 8. Incident documentation procedures
  - 9. After action reviews and debriefings

### **Assignment:**

- 1. Reading 20-50 pages between sessions
- 2. 2-4 written homework asignments
- 3. 1-3 individual exercises
- 4. 2-4 group exercises
- 5. WUI firefighting simulation exercises
- 6. Summative exam
- 7. Must meet all attendance and participation guidelines established by State Fire Training. May not miss more than 2 hours.

#### 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.

Individual and group writing exercises, including parts of an IAP

Writing 5 - 10%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Command and decision based scenarios

Problem solving 5 - 10%

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

Command and decision based scenarios

Skill Demonstrations 5 - 10%

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

Multiple choice summative exam

Exams 70 - 80%

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

Must meet all attendance and participation guidelines.

Other Category 5 - 10%

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

Command 1C Student Manual by California Fire Service Training and Education System 2013 edition

Fireline Handbook, National Wildfire Coordinating Group, 2004 edition ICS 420-1 Field Operations Guide, Firescope, 2012 edition Incident Response Pocket Guide, National Wildfire Coordinating Group, 2012 edition