

**FIRE 206 Course Outline as of Fall 2019****CATALOG INFORMATION**

Dept and Nbr: FIRE 206            Title: WILDLAND FF ACADEMY  
 Full Title: CAL FIRE Wildland Firefighter Academy  
 Last Reviewed: 5/13/2019

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.25	Lecture Scheduled	0	1	Lecture Scheduled	0
Minimum	1.25	Lab Scheduled	0	1	Lab Scheduled	0
		Contact DHR	70.00		Contact DHR	70.00
		Contact Total	70.00		Contact Total	70.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 0.00

Total Student Learning Hours: 70.00

Title 5 Category: AA Degree Applicable  
 Grading: P/NP Only  
 Repeatability: 21 - Legally Mandated Repetition  
 Also Listed As:  
 Formerly: FIRE299.44

**Catalog Description:**

An intensive study of wildland firefighting, fire control strategy and tactics, mobile attack, wildland hose lays and handline construction and wildland safety and survival, and a field skills day is included with live fire operations. Course also includes two overnight sessions. Students must adhere to the same dress, rules and conduct as prescribed in the Firefighter I Academy. Upon successful completion, students will be eligible to apply for a CAL FIRE Basic Firefighter Certificate.

**Prerequisites/Corequisites:**

Course Completion of FIRE 208.1 or equivalent as determined by the Dean of Public Safety Instruction

**Recommended Preparation:****Limits on Enrollment:****Schedule of Classes Information:**

Description: An intensive study of wildland firefighting, fire control strategy and tactics, mobile attack, wildland hose lays and handline construction and wildland safety and survival, and a field

skills day is included with live fire operations. Course also includes two overnight sessions. Students must adhere to the same dress, rules and conduct as prescribed in the Firefighter I Academy. Upon successful completion, students will be eligible to apply for a CAL FIRE Basic Firefighter Certificate. (P/NP Only)

Prerequisites/Corequisites: Course Completion of FIRE 208.1 or equivalent as determined by the Dean of Public Safety Instruction

Recommended:

Limits on Enrollment:

Transfer Credit:

Repeatability: Legally Mandated Repetition

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

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

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
---------------	----------------------	------------	-----------

<b>CSU Transfer:</b>	Effective:	Inactive:
----------------------	------------	-----------

<b>UC Transfer:</b>	Effective:	Inactive:
---------------------	------------	-----------

**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

**Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Describe the key safety issues relative to fire behavior, topography, fuels and weather.
2. Demonstrate the correct use of hose, tools and safety equipment used on wildland fires.
3. Demonstrate an awareness of the proper firefighter survival skills used in wildland fire conditions.

**Objectives:**

The students will:

1. Describe the mission of CAL FIRE and the policies and procedures applicable to seasonal firefighters.
2. Demonstrate the correct procedures for radio use and responding to emergency calls.
3. Identify the components of basic fire chemistry and wildland fire behavior.
4. Identify and demonstrate the use of safety equipment used in wildland firefighting.
5. List and describe the orders, situations and practices used to promote safety on the wildland fire ground.
6. Demonstrate the hose lays and loads used in wildland firefighting.
7. Demonstrate the proper use of fuses and drip torches.
8. Describe the proper use of chain saws and flagging tape on the wildland fire ground.
9. Describe the use of aircraft in wildland situations.
10. Identify the apparatus and their safety devices used in wildfire firefighting.
11. List and demonstrate the proper use of hand tools used in wildland firefighting.

12. Describe the tactics and strategies used in wildland firefighting operations.
13. Describe the tactics and strategies used in wildland urban interface (WUI) firefighting operations.
14. Demonstrate the proper techniques for fighting wildland fires.

## **Topics and Scope:**

### **I. Orientation**

- A. Cal Fire Mission and Organization
- B. Policies and regulations
  1. Ethics, diversity, sexual harassment
  2. Code of conduct
  3. Working with inmate fire crews
- C. Station Operations
  1. Responding to emergency calls
  2. Introduction to radio communications

### **II. Basic Fire Chemistry**

- A. Fire Triangle
- B. Methods of Heat Transfer

### **III. Wildland Fire Behavior**

- A. Terminology
- B. Fuels
- C. Topography
- D. Weather

### **IV. Safety And Risk Management**

- A. Wildland Personal Protective Equipment (PPE)
- B. 18 "Watch Out" Situations
- C. Ten Standing Firefighting Orders
- D. Lookouts, Communications, Escape Routes, Safety Zones (LCES)
- E. Common Denominators of Fire Fatalities
- F. Fireline Hazards
- G. Downhill Fireline Construction
- H. Avoiding Entrapment
- I. Human Factors in Wildland Fires
- J. Situational Awareness
- K. Hydration
- L. Self-Contained Breathing Apparatus (SCBA)
- M. Fire Shelters
  1. Use
  2. Deployment
- N. Fire Blankets and Curtains
  1. Types
  2. Deployment
- O. Using Vehicles As Refuge
- P. Using Structures As Refuge
- Q. Burn Treatment of Firefighters
- R. Air Tanker Retardant Drop Safety Considerations
- S. Rotary Wing Aircraft Safety Considerations
- T. Bulldozer Operations Safety Considerations
- U. Power Line and Electrical Considerations
- V. Three Strikes and You're Out

### **V. Wildland Firefighting Equipment**

- A. Fire Hose
  - 1. Sizes and construction
  - 2. Care and maintenance
  - 3. Hose couplings
  - 4. Hose rolls
  - 5. Hose lays
    - a. Progressive hose lays
    - b. Reel line use
  - 6. Picking up and draining hose
    - a. Progressive hose lays
    - b. Reel line use
- B. Tools and Equipment
  - 1. Traffic control devices and signals
  - 2. Road flares (fusees)
    - a. How to ignite and extinguish fusees
    - b. Use of fusees as firing tools
  - 3. Drip torch use and maintenance
  - 4. Fireline flagging
  - 5. Chain saw use
- C. Firefighting Aircraft
  - 1. Fixed wing aircraft
  - 2. Rotary wing aircraft
- D. Mobile Equipment
  - 1. Fire apparatus identification
  - 2. Warning devices
  - 3. Chock blocks and seatbelts
  - 4. Backing hand signals
  - 5. Safety vests
- E. Hand Tools
  - 1. Brush hook
  - 2. Pulaski
  - 3. Double bit, single bit and pick-headed axes
  - 4. Round and square point shovels
  - 5. McLeod
  - 6. Wire broom
  - 7. Rhino tool
  - 8. Combi tool
- VI. Wildland Firefighting Principles
  - A. Wildland Firefighting Terminology
  - B. Parts of a Wildland Fire
  - C. Wildland Firefighting Strategies
  - D. Wildland Fire Uses of Water
  - E. Wildland Hose Lay
  - F. Mobile Attack
  - G. Mop-up and Control
  - H. Handline Construction
- VII. Wildland Fire Operations
- VIII. Wildland Urban Interface (WUI) Operations

**Assignment:**

1. Demonstrate 18-26 manipulative and technical firefighting skills.

2. Complete 2-4 pages of written homework problems daily.
3. Reading 30-80 pages daily.
4. Complete a performance exam.
5. Attend a minimum of 60 hours of instruction including two overnight sessions.
6. Complete 5-7 quizzes and a final exam.

**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.

Written homework	Writing 10 - 15%
------------------	---------------------

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

Homework problems	Problem solving 10 - 20%
-------------------	-----------------------------

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

Class performances, field work, performance exams	Skill Demonstrations 30 - 40%
---	----------------------------------

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

4-6 quizzes and final exam	Exams 30 - 40%
----------------------------	-------------------

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

Attendance and participation	Other Category 5 - 10%
------------------------------	---------------------------

**Representative Textbooks and Materials:**

- Cal Fire Wildland Firefighter Academy Manual, Publ. Cal Fire, 2003 (classic)
- Cal Fire Wildland Firefighter Safety & Survival manual, Publ. Cal Fire, 2010
- S-130, Firefighting Training Manual, Publ. National Wildfire Coordinating Group (NWCG), 2003 (classic)
- S-131, Type I Firefighting Training Manual, Publ. NWCG, 2004(classic)
- S-190, Introduction to Wildland Fire Behavior, Publ. NWCG, 2006 (classic)
- L-180, Potential Hazards and Human Factors on the Fireline, Publ. NWCG, 2003 (classic)
- Essentials of Firefighting, 5th edition, Publ. International Fire Service Training Association (IFSTA), 2008 (classic)