

OXNARD COLLEGE REGIONAL FIRE ACADEMY

"Integrity, Teamwork, Attention to Detail, Obedience to Orders"



Course: **FT R180 Hybrid Wildland Fire Academy**

Day: 2 Day Instructional Week 0830-1645

Exception: Holiday weeks

Classroom: CA104 and Online

Class Section Number: CRN 30240 Spring 2022

Instructor: Captain Dave Latham

Office Hours: Wed. & Fri. 0800-0830 & 1645-1715

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Textbooks:

NFES	DESCRIPTION
002986	COURSE - L-180, HUMAN FACTORS IN THE WILDLAND FIRE SERVICE, SW
002994	COURSE - L-280, FOLLOWERSHIP TO LEADERSHIP, SW
003028	COURSE - S-211, PORTABLE PUMPS AND WATER USE, SW
002662	COURSE - S-212, WILDLAND FIRE CHAIN SAWS, SW
002442	COURSE - S-215, FIRE OPERATIONS IN THE WILDLAND/URBAN INTERFACE, SW
002112	COURSE - S-270, BASIC AIR OPERATIONS, SW
002891	COURSE - S-290, INTERMEDIATE WILDLAND FIRE BEHAVIOR, SW
002865	GUIDE - BASIC LAND NAVIGATION, PMS 475
001077	GUIDE - INCIDENT RESPONSE POCKET GUIDE, PMS 461

About the Fire Academy

The Oxnard College Regional Fire Academy is a cooperative program between Oxnard College and the California State Fire Marshal's Office. Our accredited Academy provides certifications from the State Fire Marshal's Office, the California Specialized Training Institute, the National Wildfire Coordinating Group and Cal Fire.

Our program strives to educate and develop firefighter cadets to equip them with the basic skills set necessary to enter into the firefighter trainee workforce. We work closely with our surrounding fire agencies to ensure our graduating cadets leave with the training necessary to meet the dynamic challenges of the 21st century firefighter. Every fire agency within Ventura

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County and numerous agencies out of county have employed our graduates. We are extremely proud.

To maintain our accreditation, the Academy is reviewed every five years by the California State Fire Marshal's Office and the California Fire Technology/Academy Directors Association and subject to inspections by the California Specialized Training Institute, under the Office of Emergency Services and the Governor's Office. Instructor's must be current duty, seasonal or retired firefighters who have completed instructor training approved by the State Fire Marshal's Office.

Student Learning Outcomes: Upon completion of the Wildland Fire Academy, graduates will be able to:

1. Identify and explain environmental factors of fuels, weather, and topography that affect the start and spread of wildland fires and how these factors can affect safety.
2. Explain what LCES (Lookouts, Communications, Escape Routes, and Safety Zones) system is and how it relates to the Standard Firefighting Orders and firefighter safety.
3. Establish wildland fire control measures using various methods on simulated fire ground situations while communicating clearly and effectively.
4. Demonstrate competency and skills to design, set up, operate, troubleshoot and shut down portable water delivery systems.
5. Explain and demonstrate basic chain saw operation, troubleshooting, maintenance and fireline construction techniques.
6. Describe how to operate safely and effectively in a wildland urban interface incident using situation awareness, performing structure triage and citing appropriate structure protection actions.
7. Demonstrate how to interpret a topographical map to determine slope, aspect, acreage, distance and coordinates.
8. Identify the fundamental leadership principles, human factors and techniques used to communicate effectively.

FT R180 COURSE OBJECTIVES:

UPON SUCCESSFUL COMPLETION OF THIS COURSE, THE STUDENT SHOULD BE ABLE TO:

1. Identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.
2. Explain the affects temperature, relative humidity, winds and precipitation have on wild fire behavior.
3. List the basic characteristics of topography and describe how they affect wildland fire behavior.
4. Identify the fuel types and characteristics that influence the behavior of wildland fires.
5. Compare the differences of stable and unstable atmospheres related to wild fires.
6. Link fire weather forecasts to anticipated fire behavior.
7. List fire environmental factors to consider when monitoring fire behavior.

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8. Describe combined influences that cause extreme fire behavior and safety concerns.
9. Describe and define wildland firefighting terminology.
10. Explain the importance of proper use, maintenance and accountability of issued personal protective equipment (PPE).
11. Create a list of personal gear needed for extended wildland fire operations.
12. Describe the benefits of fitness, health, nutrition and adequate hydration.
13. Define an incident and describe how the incident management structure is organized.
14. List the function and responsibilities of each section of the Incident Command System.
15. Name different types of crew organizations used to suppress wild fires.
16. List and explain the importance of the 18 Watchout Situations and the 10 Standard Firefighting Orders.
17. Illustrate how Lookouts, Communications, Safety Zones and Escape Zones relate to the Standard Firefighting Orders.
18. Point out the limitations of utilizing the Incident Response Pocket Guide safety zone guidelines.
19. Explain the inspection and care, function and deployment options for a fire shelter.
20. Demonstrate the correct deployment procedures for a fire shelter in 25 seconds or less.
21. Develop safety procedures when traveling by vehicle, boat, helicopter, fixed-wing aircraft and foot.
22. Demonstrate the proper inspection, maintenance and operation of wildland hand tools and firing devices used for fire suppression.
23. Describe hazards to the operators when using a drip torch.
24. Deploy hose lays utilizing all appliances, fitting and nozzles.
25. Perform as a team member to construct fireline with the use of hand tools.
26. List wildland suppression techniques and explain how each is implemented.
27. Give examples of control line types and discuss the hazards when existing control lines are threatened.
28. Describe safety procedures during retardant/water drops
29. Identify the hazards of working in close proximity to fireline dozers.
30. Illustrate systematic methods of patrolling and locating spot fires.
31. Differentiate between command and tactical radio frequencies
32. Transmit a clear and concise message using a handie talkie radio.
33. Describe systematic methods for mopping up a wild fire
34. Explain and demonstrate how to use hand tools to extinguish burning materials.
35. Define the ultimate goal of a water delivery system
36. List two reasons why portable water delivery systems are important for wildland firefighting and prescribed burning.
37. Identify key factors to consider when designing, setting up and operating a portable water delivery system.
38. Distinguish between two and four cycle engines and identify which is most important to a pump operator.
39. Label the parts of a commonly used portable pump.
40. Identify the purpose of suction or discharge hoses.
41. Explain the function and purpose of wildland fire appliances and nozzles.
42. Demonstrate how to prevent the pump motor from flooding during starting procedures.
43. List general guidelines for maintaining and retrieving hose.

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44. Identify the importance of having a basic understanding system hydraulics.
45. Determine flow and pump discharge pressure through appropriate system pumps.
46. Draw a schematic of a water delivery system design, and explain its function.
47. Determine whether parallel or series pumping would be the best option.
48. Cite the sources of information for chain saw regulations and standards.
49. Compile a Job Hazard Analysis/Risk Assessment containing all elements related to chain saw operations.
50. Describe personal protective equipment required for chain saw operations.
51. Identify the safety components of the Situational Awareness and Individual Complexity List.
52. Identify basic chain saw parts, adjustments, troubleshooting, maintenance and chain saw safety features.
53. Demonstrate chain saw maintenance techniques.
54. Demonstrate chain saw transporting and starting procedures.
55. Demonstrate the use of tools and supplies that support chain saw operations.
56. List the duties and responsibilities of the chain saw operator and the swamper.
57. Explain the tactical application of chain saws in fireline construction and mop up operations.
58. Compare methods of saw team deployment used in fireline tactics.
59. Discuss methods of mop up and fireline rehabilitation.
60. Show proper chain saw handling techniques.
61. Describe the proper procedure and hazard assessment for bucking to include the types of binds and bucking methods.
62. Explain the proper procedures and hazard assessments for limbing, brushing and slashing.
63. Demonstrate competence in safely handling bucking, limbing and brushing and slashing in the least complex situations.
64. Demonstrate safe cutter and swamper interaction.
65. Identify the elements of the tree felling process
66. Describe felling techniques and list the steps for felling a tree.
67. Explain the methods used to mitigate leaner and tree hangups.
68. Show how to analyze a stump to include all elements of the evaluation.
69. Describe operating principles and unique safety concerns to firefighters in the interface.
70. Describe escape routes, temporary refuge areas and safety zones as they apply to firefighting in the interface.
71. Discuss how preparing for and responding to interface fires is a shared responsibility as outlined in the Federal Wildland Fire Policy.
72. Compare human factors encountered in the interface as they relate to decision making for firefighter and public safety.
73. Explain the value of the Incident Command System and mutual aid as they apply to an interface incident.
74. Name the resources used for pre-incident planning.
75. Categorize the items to consider when sizing up an interface fire.
76. List the items to consider when developing an initial strategy for suppression operations.
77. Cite the structure triage categories.
78. Explain the factors upon which to base structure triage decisions and give an example of each.

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79. Identify the conditions which may indicate a structure cannot be saved.
80. List the seven structure protection tactical actions.
81. List three examples of how to reference a map during an incident.
82. Describe key points when using a map with a compass or GPS receiver.
83. Given a specific scenario, indicate the most appropriate type of map to be used.
84. List the reference coordinates for latitude/longitude and UTM.
85. Explain how latitude/longitude is measured on a map.
86. Determine acreage of area using a map.
87. Demonstrate storing and naming waypoints and tracks using a GPS receiver.
88. List 3 ways to prevent making user mistakes while using a GPS receiver.
89. Describe the guidelines for naming waypoints.
90. Using a given map, identify plot the specified latitude/longitude.
91. Name 4 standards to be incorporated into preparing field maps.
92. Identify pertinent information for field notes.
93. Agree that firefighters have a responsibility to learn and improve their performance.
94. Describe the relationship between situational awareness and reality and perception.
95. Describe the role of a leader and the motivation for wanting to lead.
96. Identify leadership values and their supporting principles
97. Create a leadership self-development plan
98. Name common leadership pitfalls and develop strategies to avoid them.
99. List basic leadership styles and appropriate situations for their use.

Reading Assignments

Students will be assigned multiple reading assignments every day from 2-3 textbooks. In addition, the student will be required to review various course materials available on the internet and college portal. Reading should be completed PRIOR to that class topic.

Examinations, Evaluation and Grading System

1. Overall Academy score of 80% must be attained for Oxnard College Wildand Firefighter Academy Certificate
2. A score of 70% must be achieved to receive any NWCG firefighting certificate.
3. Exams will be conducted online on Canvas.
4. Examination Results Review
 - a. You will get your score immediately upon completion.

Manipulative Performance Evaluation

1. Graded on a pass or fail basis
2. Evaluated during skills development and performance in the field exercises
3. The following areas contain performance to be evaluated
 - a. S-130 Firefighter Training
 - b. S-211 Portable Pumps
 - c. S-212 Wildland Fire Chainsaws

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- d. Pack Test
- 4. Remedial performance evaluation
 - a. Performance evaluation is a cumulative process and no remedial evaluation will be possible

Homework Assignments

- 1. Due @ 0830 on the identified date in Canvas.
- 2. A quiz worth 10 points will be given for each assignment online and due per Canvas.
- 3. One point will be awarded for every complete/correct answer
- 4. **Late assignments will NOT be accepted / Cannot be made up**

Battalion Assignment - Scheduled

- 1. Each Battalion will be given a group assignment
- 2. All companies are to participate in the assignment
- 3. Delegation of duty for the assignment will be identified by the Fire Academy Coordinator
- 4. The Company assignment must be completed in the format identified for all points to be awarded

Squad Assignments

- 1. Each Company will be given a group assignment
- 2. All cadets are to participate in the assignment
- 3. The assignments are to be documented as instructed
- 4. The Company assignment must be submitted in the format identified for all points to be awarded

Grading System

- 1. Course Exams
 - a. Exams must be passed at 70% to receive a certificate. Exams are a combination of multiple choice, true and false, and fill in.
 - b. S-130 - 100 points
 - c. S-190 - 39 points
 - d. S-211 - 70 points
 - e. S-212 - 100 points
 - f. S-215 - 75 points
- 2. Homework Assignments
 - a. 10 points per quiz; 20 quizzes
- 3. Online NIMS certification are graded pass/fail and worth 50 points per certification.
- 4. Performance Evaluations for successful performance
 - a. Performance must be completed at a satisfactory level
 - b. S-130 200 points

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- c. S-211 50 points
- d. S-212 100 points
- e. Pack Test 50 points
- 5. Uniform/PPE/Book/Locker/Gear Storage Inspections
 - a. Max of 8; 5 points per inspection

Overall point breakdown

1. Course Exams	730
2. Online Certifications	250
3. Homework	176
4. Performance Evals	400
5. Uniform Inspect	<u>40</u>
6. Total Points	1596

Overall grade breakdown by points

- 1. A = 1436 -1596 points
- 2. B = 1276 - 1435 points
- 3. C = 1117 -1275 points
- 4. D = 957 - 1116 points
- 5. F = 956 or less points

Cadets holding a grade level 'D' will be encouraged to withdraw. Cadets holding a grade level 'F' will be dropped.

Certification Courses

- 1. Require 100% attendance.
- 2. Must score 70% to receive a certificate.

Exam/Assessment Make-up

Allowed on case by case basis only

Participation points:

Given for additional skill assessments and will reflect on final grade

Electronics Use: Only as Authorized for specific assignments

Plagiarism: Prohibited. See Student Code of Conduct in the Oxnard College Catalog

Course Hours Missed

The maximum number of hours allowed for absences is 10. The Academy issues certification covering 240 hours of instruction in addition to testing. Attendance in all topics is mandatory for an academy completion certification. Cadets exceeding 10 hours of absences will be dropped from the program. Special circumstances may arise and will be handled on a case by case basis. Cadets

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are responsible for retrieving any and all class material missed. Course hours missed is also addressed in the OCRFA Policy & Procedures Manual, Policy Order #1, Item 2

Important Dates: Deadline to drop WITHOUT "W": January 29th, 2021 ; WITH "W": February 1st, 2021

Drop / Withdraw: Students responsibility to formally withdraw if necessary. Failure will result in a posted letter grade "F".

Learning disabilities:

Statement of Reasonable Accommodation

Oxnard College faculty members fully support the Americans with Disabilities Act (ADA), Title 5, Section 508, and the Rehab. Act of 1973. Members of the faculty will provide reasonable accommodation to any student with a disability who is registered with the Educational Assistance Center (EAC) who needs and requests accommodation. Faculty may wish to contact the EAC to verify the presence of a disability and confirm that accommodation is necessary. EAC will arrange and provide for the accommodation. Reasonable accommodation may involve allowing a student to use an interpreter, note taker, or reader; accommodation may be needed during class sessions and for administration of examinations. The intent of the ADA in requiring consideration of reasonable accommodation is not to give a particular student an unfair advantage over other students, but simply to allow a student with a disability to have an equal opportunity to be successful. Student assistance available at OC Educational Assistance Center at 986-5830.