

Using a Hybrid, or Blended Learning Approach to CFA

Introduction

In some cases, it might be useful to provide the Citizen Fire Academy curriculum in a blended learning style, i.e., offer some of the module content and interaction online and then apply concepts and information face-to-face via field activities. This is especially true in situations where participants need to travel long distances to meet in person or it is difficult to find dates where everyone can gather at the same time. The existing curriculum supplies all the content and instructional design, and a hybrid template is available that will help you with online interaction, formatting, and flow.

The hybrid learning template we developed is available to all instructors wishing to use this format. Please contact your local OSU Forestry and Natural Resource Extension agent or the CFA coordinator to preview and gain access to this technology. Just like the traditional curriculum, this hybrid curriculum covers all the same learning objectives and guides participants through their wildfire preparedness plans.

If you are new to hybrid learning, view the Oregon State University Hybrid Course Initiative Resources website for more information: <http://oregonstate.edu/ctl/hybrid-course-initiative>

Each online module contains the following:

- One or more measurable learning outcomes
- A set of directions from the facilitator
- Content (subject matter or information) provided in a variety of formats, including narrated presentations, videos, documents, website links, and virtual multimedia tools
- One or more online learning activities—these range from having participants complete assignments and forum discussions to them applying something they've learned to their own home or property

- Clear pathways for interaction using 3 types of connections:
 - Learner with content
 - Learner-to-learner
 - Learner-to-facilitator
- One or more assessments to gauge achievement of learning outcomes. These include self-assessments and forum discussions.

At Oregon State University Extension, we use an online learning platform called Canvas to offer Citizen Fire Academy online.

Learn a little more about Canvas at <http://www.canvaslms.com/higher-education/>.

You can either use our Citizen Fire Academy Canvas course template or create your own using your learning management system of choice.

Sample CFA Hybrid Learning Training Schedule

Week 1

Introductory session and dinner (in person, 3 to 4 hours)

An in-person session where participants meet the host, each other, and key fire personnel from the community. Introduce participants to fire issues and history in the area. Make sure everyone can use the technology. Use the conventional lesson plan in this curriculum where appropriate.

Week 2

Online module 1: Fire Science

At the end of this module participants will:

- Know the common ignition sources in Oregon
- Know the components of the fire triangle and fire behavior triangle
- Interpret how fuels (and their arrangement), weather, and topography interact to affect fire behavior
- Describe to neighbors, family, or friends how fuel loading, continuity, and chemical makeup affects fire behavior
- Apply knowledge to other modules and topics, including home assessments
- Understand and describe which factors can and cannot be mitigated when it comes to fire severity, intensity, and subsequent effects

Office hours (optional)

A 1-hour conference call at the end of the week to answer questions and have a discussion.

Week 3

Online module 2: Living in a Fire Environment

At the end of this module participants will:

- Develop a basic understanding of wildfire suppression practices including detection, initial attack, and how response to wildland and WUI fire differs
- Identify which fire agencies are responsible for various types of fire protection and how they coordinate
- Know how to access current information about wildfire
- Develop a basic understanding of the various local and state laws and rules pertaining to fire and fuels reduction and know where to get more information
- Know basic aspects of safe evacuation procedures and shelter-in-place
- Become familiar with locally relevant community wildfire protection planning efforts (e.g., CWPPs, Firewise communities)

Field tour 1: Fire Ecology, Fire Science, and Living in a Fire Environment

Week 4

Online module 3: Evaluation Fire Risk and Home Protection Strategies

At the end of this module participants will:

- Understand components of risk
- Understand basic approaches of fire risk assessment around homes

- Understand and identify the HIZ and define defensible space
- Determine effective strategies to reduce fire risk
- Understand how a home's construction and surrounding landscape vegetation affects its combustibility and risk to wildfire
- Conduct a homesite fire-risk assessment on their own home and use this in developing their wildfire preparedness plan for their home and property. (Participants are not expected to be competent in conducting official SB 360 home assessments after this module. In order to do official home assessments, CFA volunteers would need to complete a more intensive ODF training on this subject.)
- Communicate HIZ and defensible space principles to others so they will be motivated to take action
- Recommend fire-resistant landscaping techniques
- Point out where homes are vulnerable to fire and embers (vents, decks, roofs, etc.)
- Take measures to decrease fire risk on their own property

Office hour conference call, end of week 4 (optional)

Week 5

Online module 4: Fuels Reduction

At the end of this module participants will:

- Analyze objectives behind fuels reduction
- Describe the four principles of fire-resistant forests
- Compare and contrast typical fuels reduction and slash disposal methods and some of their pros and cons
- Recognize the importance of location and spatial context in fuels reduction
- Brainstorm ideas for how fuels reduction can be integrated with other objectives

Field tour 2: Evaluation Fire Risk, Home Protection Strategies, and Fuels Reduction

Final session

Participant Presentations, Effective Volunteering, and Graduation (in person)

This is a chance to wrap up any final questions and motivate participants into their coming roles as volunteers. Use the conventional lesson plan in this curriculum where appropriate.

Citizen Fire Academy Hybrid Version: Sample field tour #1

Fire Science and Living in a Fire Environment (6.5 hours)

Meeting place: TBD by host

Vans needed: TBD by host

Hard hats: CFA facilitator will provide if appropriate

8:30 a.m.–9 a.m.

Welcome and review

Social time, overview of what has been covered so far, questions and discussion from online modules, and an introduction to the day

You might start in a classroom. Allow some time for folks to mingle, drink some coffee, and discuss what they have learned so far. Remember, this relationship building time is important!

9:00 a.m.–9:45 a.m.

Parking lot demonstrations (from Fire Science module)

Review “Exercises” in the Fire Science module (page 24) to see how to accomplish these demonstrations. You do not have to complete all of them if time is limited.

- Demonstration #1: Fire Triangle
- Demonstration #2: Modes of Heat Transfer
- Demonstration #3: Fuel Size Examples and Their Contribution to Fire Behavior
- Demonstration #4: Matchstick Forest Fire Behavior

Site visits (from Living in a Fire Environment module)

Can be done with fewer sites, as long as topics are covered.

10:15 a.m.–10:45 a.m.

SITE 1: WUI landscape

Choose an area with a view of a WUI landscape. Where does wildland end and urban begin? Discuss landscape context, landowner diversity, and value diversity. If you have fire risk maps or maps with prior fires overlaid, those will be helpful to really show why this work is important!

10:45 a.m.–11:45 a.m.

SITE 2: Local rural fire district or city fire department

Introduce participants to some fire officials. Discuss local fire protection infrastructure. Explain the forest/urban fire protection complex, including who does what (city, rural fire district, ODF, USFS/BLM), zones of overlap, wildland versus structure protection, and how the agencies coordinate.

12:00 a.m.–12:30 p.m.

Lunch

Can be done in the field or at a nearby park. Allow time for socializing and questions and answers.

1:00 p.m.–2:00 p.m.

SITE 3: Recent burn site

Visit a recent or past burn. If you can, get someone who was involved in fire suppression to tell the story of this fire, fuels condition prior to the fire, how the fire started, suppression efforts, etc. Have small groups go out to assess following factors:

1. Are there any indicators of fire severity?
2. Which environmental factors affected this fire (topography, vegetation, etc.)?
3. What is current vegetation composition?
4. What would happen if it were to burn again?
5. How does the current status compare to historic forest status?

2:15 p.m.–2:45 p.m.

SITE 4: Firewise community or a neighborhood close to prior fire

Meet with an HOA representative, Firewise community leader, or other community leader. Discuss community values and current management goals (recreation, aesthetics, wildlife, fire safety). If there was an experience with fire, discuss the community's response from a neighborhood level to a watershed level. Share evacuation or shelter-in-place experiences. Talk about the organizing process, opportunities and barriers, and lessons learned.

This is your opportunity to discuss CWPPs, fire-adapted communities, any other locally relevant organizations, and how a future CFA volunteer might be involved in starting or working with a Firewise community or supporting one of these organizations.

2:45 p.m.–3:00 p.m.

Travel and adjourn

Citizen Fire Academy Hybrid Version: Sample field tour #2

Home Protection Strategies and Fuels Reduction (6.5 hours)

Meeting place: TBD by host

Vans needed: TBD by host

Hard hats: CFA facilitator will provide, if appropriate

8:30 a.m.–9 a.m.

Welcome and review

Social time, overview of what has been covered so far, questions and discussion from online modules, and an introduction to the day

9:30 a.m.–11:30 a.m.

SITE 1: Neighborhood in WUI (from Home Protection Strategies module)

Part 1 – Take participants to a part of the WUI where homes are situated in areas with high fuel loads and moderate to steep slopes. Discuss fire risk in this situation as well as how homeowners should evacuate if a fire erupted in that location. If you have fire hazard maps, those would be helpful here. If convenient, locate an area where homeowners have created some defensible space or other mitigating treatments.

Part 2 – Take the group to a home and conduct a fire-risk assessment using SB 360 evaluation form (handout) or HIZ assessment form. This should be a guided discussion with an expert from ODF or local fire district. It is important to start from the house (roof, decks, etc.) and work your way outwards, evaluating the landscape around the home and beyond. The instructor should do the assessment with the entire group moving through and discussing each item on the checklist. Discuss other factors that either mitigate or increase the fire risk for the home in question. Also discuss opportunities for CFA volunteers to help neighbors, friends, HOAs, and other organizations with their home assessments, fuels reduction, and defensible space efforts.

11:30 a.m.–12:00 p.m.

Lunch

This can be a good time to talk to participants about the service component of their work. Are they currently part of an organization or HOA? What challenges or opportunities do they see? Have they engaged with an organization or agency via this training that they would like to work with? What motivates individuals and communities to prepare for an emergency?

Review volunteer module (page 93) for more information and resources on this topic.

12:30 pm–2:45 pm

SITE 2: Fuels Reduction Site

Visit a private woodland property or public forest where fuels reduction has occurred, ideally right next to an untreated area.

The instructor, host, and/or a volunteer demonstrate fuels treatment methods, especially those applicable to landowners. Examples: pruning, hand piling of slash, pile burning, chipping, using a brushcutter or other tools to cut re-sprouting vegetation, and using a weed wrench or similar tool to uproot Scotch broom or other highly flammable invasive weeds. The demonstration should include a discussion of proper techniques

as well as equipment options. If feasible, give volunteers opportunities to try out the hand tools and perhaps construct a slash pile.

Field exercise (30 to 60 minutes) – Divide into small groups (3 to 6 people per group). Each group will complete a fuels reduction assessment and action plan for a property or other defined area. They should evaluate the relative fuel hazard and identify locations for and types of fuels reduction. See fuels reduction assessment form (page 90) for detailed instructions.

2:45 p.m.–3:00 p.m.

Travel and adjourn