



## Syllabus for Forest Health & Protection

### Course Information

Semester & Year: Spring 2022

Course ID & Section #: FNR-60-E3118

Instructor's name: Valerie Elder

Day/Time of Face-to-Face meetings:

Friday's 10:05AM - 02:25 PM at 127 with some off campus meetings and field trips \*  
check announcements\*

Note: Some weeks have an online component that requires you to complete  
assignments and login to canvas prior to Friday.

Course units: 3

### Instructor Contact Information

Office Hours:

Monday mornings 9-11 AM ([Online via Zoom](#): password: treesrcool) or In-person (AT 134)

Pronto: I will answer M-F 10-4, feel free to send and I will respond as soon as I can.

Email address: [Valerie-elder@redwoods.edu](mailto:Valerie-elder@redwoods.edu)

### Course Textbook:

Forest Health and Protection

Author: Edmonds, Agee, and Gara. 2010

ISBN 978-1-57766-652-3

\*Library copy available for 2-hour checkout\*

Recommended:

Pests of the Native California Conifers Paperback

by David L. Wood, Thomas W. Koerber, Robert F. Scharpf, Andrew J. Storer

The CR Library also has this available as an eBook. This eBook can be "checked out" to one user at a time. Students accessing from off campus will need to enter their WebAdvisor ID and 8-digit birth date to log in. Please remind students to close out the eBook when they are finished so other students can use it.

<https://ezproxy.redwoods.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=306025&site=ehost-live&scope=site>

## Catalog Description

A survey of forest health theory and application in local and regional ecosystems. Discussion topics include pest identification and pest complexes, disease symptoms and recognition, identification of abiotic disorders, and prevention strategies to protect forest values. Field trips will showcase local forest health problems and protection techniques.

**Notes:** Field trips required; the College does not provide transportation. Please reach out to me with any concerns or questions about this. Alternative options can be made available and you should contact me during the first week of school to make arrangements, *if possible*, for the offered alternative assignments.

## About the Course

### Student Learning Outcomes

1. (LEC) Articulate a meaningful definition of forest health.
2. (LEC) Describe the tools, techniques, and organizations involved in forest protection.
3. (LEC) Discuss the life history characteristics of pests and diseases.
4. (LAB) Identify common forest health threats in different forest types.

### Student Learning Objectives

1. Students should be able to define and use key terms and concepts related to forest health.
2. Students should be able to recognize and describe the common tools and techniques for managing forest health problems.
3. Students should be able to discuss the organizations and structures responsible for and the regulation of forest health problems.
4. Students should be able to recognize common pests and diseases affecting regional forests and discuss management options.
5. Students should be able to apply the concepts of Integrated Pest Management to maintain forest health.
6. Students should be able to discuss the ecology of forest pests and the different forest types they occur in.

## Course Description

Forest Health- You won't look at the forest the same again. This course builds upon previously learned knowledge of the forest and explores forest disturbance, concepts of a healthy forest and gives you opportunities to analyze and apply this information. This

course explores the drivers behind decay, disease, the influence of climate, forces of fire, wind, and human impact.

A key issue discussed will be the public perception of forest health risks and management. Forest health is different than human health. In human health there is a major focus on quality of life, and in many cases, we want to enhance forest health. Sometimes this means enhancing diversity and that means keeping dead trees! For example; a dead standing tree, a snag, is a beneficial component to wildlife habitat. Further fallen dead trees and their decay cycles nutrients which enhances future forest growth. However, in some cases we might remove trees to enhance the fire resiliency of the landscape. Fire suppression and policy has influenced the health of forests in the West, how will we manage this moving forward? These issues overlap larger societal concepts of how we live and utilize resources, some are controversial.

Speaking of that you notice I've said "manage" many times. You will develop your own understanding of how you see management from a forest health perspective in this course. A key theme of this course is an integrated approach to managing forest health through ecosystem management.

Through field trips, laboratory and project work, video, audio, readings and guest lectures we will explore the world of forest health. Online canvas modules will organize learning resources. We will delve into local examples such as Sudden Oak Death and attempt to understand the complexity of land ownership, management preferences, impact and study of the disease. We will spend time learning components separately and then putting them together to understand the complexity. We will put to concepts together in the campus forest by completing a forest health inventory. See below for an outline of what we will cover, how you will be assessed on your learning and skills obtained.

**Concepts:** This is an outline of the concepts covered in this course.

## 1 Forest Health Concepts and classification

1. Abiotic pests (environmental, mechanical, chemical, etc.).
2. Vascular plant pests (weeds, mistletoes, etc.).
3. Pests of fruits of forest trees (seed weevils, etc..).
4. Virus infections of forest trees.
5. Phytopathogens (fungi, bacteria, etc.).
6. Invertebrate pests (insects, arachnids, etc.).
7. Vertebrate pests (deer, bear, beaver, etc..).
8. Forest nursery pests.

## 2 Integrated pest management.

1. Life history characteristics.
2. Tree vigor and ecosystem health.

3. Mechanical and chemical treatments.
- 3 Interactions in ecosystems.
  1. Difference in forest types and forest pests.
  2. Climate change impacts on forest health.
- 4 Pest complexes (including anthropogenic injuries on trees).
  1. Additive and multiplicative impacts on multiple stresses.
  2. Isolation and treatment of causes.
  3. Cumulative effects.
- 5 Pest management strategies and decision-making.
  1. Elements of costs, logistics, and environmental impact.
  2. Limitations on tools and techniques in sensitive environments.
- 6 Pest management regulatory frameworks.
  1. Federal rules and regulations.
  2. Federal regulatory agencies
  3. State Agencies and rules.

**Skills:** *What abilities must you have in order to demonstrate course outcomes?*

1. Critically read appropriate texts and journal article.
2. Identify common forest health symptoms and pests.
3. Write clear descriptions of forest conditions.

**Learning Activities** – *These are examples of things you may do to engage the course content.*

1. Listen to lectures or podcasts, and watch videos on forest health concepts.
2. Participate in class discussions on pest management applications.
3. Participate in field trips to examine local forest health concerns.

**Assessment:** *These are examples of assessments the instructor will use to measure your learning in the course related to the above goals:*

1. Quizzes on terms and definitions.
2. Exam questions on tools and techniques.
3. Written assessments of local forest health concerns.

4. Critical analysis of the peer-reviewed literature on forest health.

### **Course Component Information**

#### **Fire/Wind/Climate Group Project:**

You will work in a team (3 - 5 people) to present a case study and describe how these forces/processes/disturbance agents impact forests. After watching the team presentations (2-3) you will complete a short holistic report on the topic.

#### **Pest/Disease Presentation:**

You will be required to prepare a 1-page cheat sheet of a local pest/disease of your choosing and you will present this pest to the class via a 2-minute presentation. You will be required to include a multi-media or visual aid to accompany this presentation and you can choose if it's art you created, a podcast, blog, video, photo series or PowerPoint.

Graded by Rubric (will be) posted on Canvas.

#### **Sick Tree Guy:**

In a discussion format you will answer questions from the "sick tree guy" (a potential client/member of the public) about an aspect of forest health. You will use the clues, photos and information from the lecture/reading/lab to provide an evaluation and recommendation via the discussion board.

**Class organization:** The lectures for this Spring will be online using a Module format. Part of your assignment each week is to click through each page of the module. These pages give important overview and summary information as well as details on assignments and deadlines. In my experience relying solely on the calendar feature of Canvas is risky as it misses assignments with multiple deadlines.

The general pattern will be pre-recorded video, or other resources for the lecture component. The lecture will be included in the Canvas module. You will complete discussions, team discussions most weeks. Four times this semester you will complete a quiz. There is also a midterm group project and presentation. You should spend considerable time on the discussion and reading portion of the course. This is a 3-unit course which means weekly 2 lecture hours in class, 3 out of class for the lecture component. For some learning styles you may spend more time. This feels different in the online environment because you are often asked to do active learning with discussion and assignments rather than passively sitting in a classroom.

There is also a final project and presentation in the second half of the semester and a final quiz.

**Labs:** Many of our labs will be held on the CR campus forest or at a designated field site. For any in-person labs you must follow all of the College COVID-19 safety protocols which includes wearing a mask at all times and keeping >6ft apart. I will give you a week's notice for any in-person lab which will be held on **Fridays afternoons from 10-2:20 PM approximately**. I will offer at least one make-up opportunity. Generally, you will need to complete a lab report/or some kind of assignment for either virtual or face-to-face labs. In total the lab hours for this course are 54 hours, some labs will require more time than others but generally that's 3 hours per week.

**Field Trips:** These dates remain fluid as guest speaker availability can change. Please remain flexible on this as many lab sessions will be off campus. I will give you 1 week notice prior to field-trips via canvas and class discussion. We will work on an alternative assignment to best meet your needs, interests and abilities if you think the field trip might not work for you. The field trip will include walking approximately 1 mile in steep terrain and we may have rainy and cold weather. Grade will be based on participation and written response to observations/ worksheet or other activity.

Some fieldtrips may occur on weekends/overnight and you will have minimum 2 weeks' notice for these but will plan them by coordinating schedules the first two weeks of the semester.

Watch Canvas announcements for lab information. Weather, COVID protocol changes or other events may cause last minute changes.

### **Field Equipment**

We will have several outdoor field labs this Fall with safety protocols in place. These labs require appropriate clothing and closed-toe, traction footwear for conditions, field notebook, and miscellaneous items (sunscreen/bug repellent/ water, etc.) NOTE: You will not be allowed to participate in most outdoor labs if you do not wear appropriate attire (e.g., no flip flops or smooth-soled shoes). When working in the woods we will wear hard hats that are provided. There will be several off-campus field trips and you are responsible for your own transportation to the field sites and carpooling is not encouraged due to COVID.

### **Getting Help/Virtual Office Hours**

Your instructor will be able to assist you in a variety of ways. Please do not wait until the end of the semester if you are struggling with concepts or skills. This information is cumulative, and your future success depends on your current comprehension.

**1. Contact me or your peers using the pronto group.** All of us, and your peers, will use this similar to asking questions in class. Do a search first (Google is your friend!), and if you don't find your question, post it to the discussion group in pronto. If you solved it on your own, or

see another post to which you know the solution, you are encouraged to post feedback to help each other, so that we are sharing knowledge within the community.

**2. Check for Office Hours.** Office hours, virtual for this course, are specifically to assist you with questions or concerns. Office hours are by appointment and may be set up via zoom by contacting the instructor, so be sure to check the homepage, syllabus or announcements for more information.

**3. Email your instructor.** If you have a question about grades, or other personal or confidential matters, you should always use email to contact your instructor. Always email them directly (links are on the home page), and always from your CR account.

### **Canvas Announcements**

From time to time, class announcements will be sent out via the CR Canvas Learning Management System. It is your responsibility to make sure your **personal settings** ([Links to an external site.](#)) in Canvas **are set to receive email notifications** about these announcements. You can also review previous announcements by clicking Announcements in the navigation pane.

### **Prerequisites/co-requisites/ recommended preparation**

Students will be required to have access to adequate computer and internet access and familiarity with basic computer skills. Examples of this include:

- navigate a class in Canvas
- receive, respond and regularly check) messages sent to your CR email account
- receive, respond and regularly check) announcements sent in Canvas
- download and upload files in Canvas assignments
- use a phone or digital camera (or webcam) to upload “selfies” to your online lab notebook
- use a word processor program (such as Microsoft Word or Google Docs)
- use a webcam or a phone to record and upload videos in Canvas
- use Zoom, email and canvas discussion boards to communicate with peers and instructor

### **COVID Safety Protocols:**

Campus safety protocols can be found here:

[https://www.redwoods.edu/Portals/0/Covid/Student\\_quickfact\\_SP22.pdf](https://www.redwoods.edu/Portals/0/Covid/Student_quickfact_SP22.pdf)

Student responsibilities include:

- Facial coverings are mandatory in all indoor spaces and outdoors where 6 feet of social distancing is not possible, including walking to and from classes.
- Upload vaccination status (one-time) in the College of the Redwoods Campus App; OR
- If un-vaccinated (with exemption\*\*), complete daily pre-screenings in the Campus

App or with a health screener on campus.

- After completing the health screening, receive a pass through the Campus App OR a wristband from a health screener.
- Use QR codes and the Campus App to scan into classrooms and other areas for contact tracing purposes.

### **Accessibility**

College of the Redwoods is committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or [Disability Services and Programs for Students](#) (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1<sup>st</sup> floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

If you are taking online classes DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

### **Student Support**

Good information and clear communication about your needs will help you be successful. Please let me know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

### **Evaluation & Grading Policy**

Examinations and assignments are listed in Canvas, and in the course outline below, and are **subject to change**. Changes will be announced in class, and posted in Canvas – due dates in Canvas should be considered the most current. Additional assignment due dates will be announced when the assignments are given. You are responsible for knowing when your work is due.

Your grade will be composed of online discussions (20%), quizzes (10%), lab activities (40%) and exams (20%). The remaining 10% will be a participation/professionalism component. This component will be based on your level of engagement and interaction with your instructors and peers during the course. Assignments will be graded typically within one week of submission, depending on instructor workload. You will be able to track your grade throughout the course via the Grades section in Canvas.

## Late Policy

Deadlines are a necessary part of life, and as the information in this course is foundational and cumulative, it is important to complete your assignments on time so that you're ready for what comes next. Because of the amount of work necessary in this course and that the work is cumulative, each module needs to be completed in order for the next module to open up. This means if you have not completed everything in module one, the upcoming module two will remain locked until all the work is submitted. Each week, you will typically have a quiz, a discussion, a pre-lab and a lab assignment due. Be sure to check the Canvas calendar or the bottom of the Syllabus page for due dates. Canvas also has options for [setting reminders](#) ([Links to an external site.](#)) for your to-do list.

Late work will be penalized 10% for being for up to a week after it is due. Assignments are due at the set due date AND time. It does not matter if the assignment is one minute late or a week late the penalty will be applied. After a week the assignments will be closed and the student will receive a 0. In this case, the only way to receive credit is to contact the instructor and it will be situational whether or not those points can be made up. Exams and quizzes may not be submitted late or made up without an excused absence.

If you experience computer issues, or an internet or power outages (such as from weather or a downed line in your neighborhood) while working from home, you should seek other alternatives such as a local library to complete your work. In the case of a campus-wide or community-wide outage, deadlines will be adjusted (such as Mass outages for fire safety).

Exceptions to this policy will only be granted in the event of legitimate excused absences. An excused absence means that you have a) notified your instructor in advance and received confirmation from them that your notice has been accepted or b) provided a written medical excuse. You must still make arrangements to take the test, and our willingness to be flexible improves with the amount of advance notice we receive. Plan your travel and personal events around your school work, not vice versa. Failure to be aware of exam dates because of class absence does not constitute an excuse – any changes will be posted on Canvas.

\*\*\*Due to some unpredictable variables related to COVID-19, please discuss late or missing work and absences with me. I want you to be successful and I can only help if you communicate with me.\*\*\*

## Meeting Minimum Requirements

Minimum requirements represent the minimum amount of work needed to earn a grade. Students who submit incomplete work, or do not meet the minimum requirements regarding length and content, will be given a zero grade for the assignment.

## Expected Work Load

The expected workload for CR Courses is calculated at 3 hours per week for each unit in a standard 16-week course. For the combined lecture and lab, this amounts to nine hours per

week. This may be more or less hours depending on your learning style and inevitable technical challenges with internet/software etc.

**CR Grading Scale:** A: 94-100, A-: 90-<94, B+: 87-<90, B: 84-<87, B-: 80-<84, C+: 77-<80, C: 70-<77, D: 60-<70, F: <60

**Drop Policy:** You may be dropped from the class if you miss 3 or more weeks of class participation, discussion, assignments or labs prior to the end of week 10. If you stop participating in class after week 10 you will be graded for participation and may receive an F.

### **Admissions deadlines & enrollment policies**

#### **Spring 2022 Dates**

- *Classes begin: 01/15/22*
- *Last day to add a class: 01/21/22*
- *Martin Luther King, Jr's Birthday (all campuses closed): 01/17/22*
- *Last day to drop without a W and receive a refund: 01/28/22*
- *Census date (or 20% into class duration): 01/31/22*
- *Last Day to file P/NP (only courses where this is an option) 02/11/22*
- *Lincoln's Birthday (all campuses closed): 02/18/22*
- *Presidents Day (all campuses closed): 02/21/22*
- *Last day to petition to graduate or apply for certificate: 03/03/22*
- *Spring Break (no classes): 03/14/22-03/19/22*
- *Last day for student-initiated W (no refund): 04/01/22*
- *Last day for faculty-initiated W (no refund): 04/01/22*
- *Final examinations: 05/07/22-05/13/22*
- *Semester ends: 05/13/22*
- *Grades available for transcript release: approximately 05/30/22*

### **Academic dishonesty**

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct ([AP 5500](#)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [College Catalog](#) and on the [College of the Redwoods website](#).

### **Disruptive behavior**

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to

adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct ([AP 5500](#)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [College Catalog](#) and on the [College of the Redwoods website](#).

### **Inclusive Language in the Classroom**

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

### **Setting Your Preferred Name in Canvas**

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact [Admissions & Records](#) to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. This does not change your legal name in our records. See the [Student Information Update form](#).

### **Canvas Information**

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class.

Log into Canvas at <https://redwoods.instructure.com>

Password is your 8-digit birth date

For tech help, email [its@redwoods.edu](mailto:its@redwoods.edu) or call 707-476-4160

Canvas Help for students: <https://webapps.redwoods.edu/tutorial/>

Canvas online orientation workshop: [Canvas Student Orientation Course \(instructure.com\)](#)

### **Community College Student Health and Wellness**

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges [Health & Wellness website](#).

[Wellness Central](#) is a free online health and wellness resource that is available 24/7 in your space at your pace.

Students seeking to request a counseling appointment for academic advising or general counseling can email [counseling@redwoods.edu](mailto:counseling@redwoods.edu).

## **Emergency procedures / Everbridge**

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor

<https://webadvisor.redwoods.edu> and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or [security@redwoods.edu](mailto:security@redwoods.edu) if you have any questions. For more information see the [Redwoods Public Safety Page](#).

In an emergency that requires an evacuation of the building anywhere in the district:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

## **Eureka Campus Emergency Procedures**

Please review the [campus emergency map](#) for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the [Redwoods Public Safety Page](#) It is the responsibility of College of the Redwoods to protect life and property from the effects of emergencies within its own jurisdiction.

In the event of an emergency:

1. Evaluate the impact the emergency has on your activity/operation and take appropriate action.
2. Dial 911, to notify local agency support such as law enforcement or fire services.
3. Notify Public Safety 707-476-4111 and inform them of the situation, with as much relevant information as possible.
4. Public Safety shall relay threat information, warnings, and alerts through the Everbridge emergency alert system, public address system, and when possible, updates on the college website, to ensure the school community is notified.
5. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet, (evacuation to a safe zone, shelter in place, lockdown, assist others, if possible, cooperate with First Responders, etc.).
6. If safe to do so, notify key administrators, departments, and personnel.
7. Do not leave campus, unless it is necessary to preserve life and/or has been deemed safe by the person in command.

## **Student Support Services**

The following online resources are available to support your success as a student:

- [CR-Online](#) (Comprehensive information for online students)
- [Library Articles & Databases](#)

- [Canvas help and tutorials](#)
- [Online Student Handbook](#)

[Counseling](#) offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- [Academic Support Center](#) for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- [Library Services](#) to promote information literacy and provide organized information resources.
- [Multicultural & Diversity Center](#)

Special programs are also available for eligible students include

- [Extended Opportunity Programs & Services \(EOPS\)](#) provides services to eligible income disadvantaged students including: textbook award, career academic and personal counseling, school supplies, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in [Eureka](#) or in [Del Norte](#)
- The [Veteran's Resource Center](#) supports and facilitates academic success for Active-Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

## **Inclement Weather**

In case of weather-related delays at the University, online portions of this course will proceed as planned. Your instructor will inform you if there are any extenuating circumstances regarding content or activity due dates in the course due to weather delays. If you are affected by a weather-related emergency, please contact your instructor at the earliest possible time to make special arrangements.

## **Course Copyright**

All course materials students receive, or to which students have online access, are protected by copyright laws. Students may use course materials and make copies for their use as needed, but unauthorized distribution and uploading of materials without the instructor's express permission is strictly prohibited.

Students who engage in the unauthorized distribution of copyrighted materials may be held in violation of the College of the Redwoods Code of Conduct, and liable under Federal and State laws.

**Disclaimer**

The specifics of this Course Syllabus can be changed at any time, and you will be responsible for abiding by any such changes. Significant changes to the syllabus will be communicated to you via Canvas announcements.

**Course Schedule**

The course schedule is posted to Canvas, and is subject to change. Please see Canvas for the most current version.