Syllabus for FNR-60 Forest Health & Protection

Course Information

Semester & Year: Spring 2021
Course ID & Section #: FNR-60-E0820
Instructor's name: Valerie Elder
Lecture: Asynchronous: Canvas Modules
Lab: Varies
If a lab is held face-to-face, they will be offered on Friday's 10:05-2:20 look for dates in CANVAS.
Some labs will be completed virtually.
Location: Various
Course units: 3

Instructor Contact Information

Zoom "Walks in the Woods" Office Hours:
Office hours: Monday 1:30-2:30
Link: https://cccconfer.zoom.us/j/94724339797?pwd=OUpPRXlmNG54aDBCZzJ5aEViR25Ldz09
Password: 476618
Email address: Valerie-elder@redwoods.edu, or message in CANVAS.

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: Fi*eld 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.

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 (3-4) 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 and evaluation and recommendation via the discussion board.

Course Textbook:

Forest Health and Protection

Author: Edmonds, Agee, and Gara. 2010

ISBN 978-1-57766-652-3

Prerequisites/co-requisites/ recommended preparation

This course is being taught in a hybrid format for Spring 2021 which means all of the lectures and some of the lab activities will be online-based and the remainder of the labs will be in-person field labs with COVID-19 health protocols in place. Because of this format 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*
- *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*

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 <u>Disability Services and Programs for Students</u> (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

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

During COVID19—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 your instructor 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

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

Grades: The Quizzes and Discussions will have limited availability which means you must complete them before the deadline to get credit for them. Discussions are due by midnight Sunday after they were assigned. Lab reports are due the following lab (Friday's) by the start of lab. Late assignments will be penalized. The semester project is due at the end -- more details about this in the assignment itself to come.

Late Assignments: Assignments turned in after the deadline will be deducted 10%*, each additional week the assignment is late an additional 10% will be deducted. Late work will not be accepted after December 11th. Please stay in communication with me regarding late work.

*Due to some unpredictable variables related to COVID-19, please discuss late or missing work with me.

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.

Late Assignments: Assignments turned in after the deadline will be deducted 10%*, each additional week the assignment is late an additional 10% will be deducted. Late work will not be accepted after April 30th. *Please stay in communication with me regarding late work*

Admissions deadlines & enrollment policies

Spring 2021 Dates

- *Classes begin: 1/16/21*
- *MLK Jr. Birthday (all campuses closed): 1/18/21*
- *Last day to add a class: 1/22/21*
- *Last day to drop without a W and receive a refund: 1/29/21*
- *Census date: 2/01/21 or 20% into class duration*
- *Last day to petition to file P/NP option: 2/12/21*
- *Lincoln's Birthday (all campuses closed): 2/12/21*
- *President's Day (all campuses closed): 2/15/21*
- *Last day to petition to graduate or apply for certificate: 3/04/21*
- *Spring Break (no classes): 3/15/21 – 3/20/21*
- *Last day for student-initiated W (no refund): 4/02/21*
- *Last day for faculty-initiated W (no refund): 4/02/21*
- *Final examinations: 5/08/21 – 5/14/21*
- *Semester ends: 5/14/21*
- *Grades available for transcript release: approximately 5/31/21*

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 or call 707-476-4160
Canvas Help for students: https://www.redwoods.edu/online/Help-Student
Canvas online orientation workshop: https://www.redwoods.edu/online/Home/Student-Resources/Canvas-Resources

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.

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 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.

Del Norte Campus Emergency Procedures

Please review the Crescent City campus emergency map for campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information, see the Redwoods Public Safety Page.

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.

Klamath Trinity Campus Emergency Procedures

Please review the responsibilities of, and procedures used by, the College of the Redwoods, Klamath-Trinity Instructional Site (KTIS) to communicate to faculty, staff, students and the general public during an emergency. It is the responsibility of College of the Redwoods, Klamath-Trinity Instructional Site (KTIS) to protect life and property from the effects of emergency situations within its own jurisdiction.
1. In the event of an emergency, communication shall be the responsibility of the district employees on scene.
   a. Dial 911, to notify local agency support such as law enforcement or fire services.
   b. If safe to do so, notify key administrators, departments, and personnel.

    c. If safe to do so, personnel shall relay threat information, warnings, to ensure the school community is notified.

    d. Contact Jolene Gates 530-625-4821 to notify of situation.

    e. Contact Hoopa Tribal Education Administration office   530-625-4413

    f. Notify Public Safety 707-476-4111.

2. In the event of an emergency, the responsible district employee on scene will:

    a. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet.

    b. Lock all doors and turn off lights if in lockdown due to an active shooter or similar emergency.

    c. Close all window curtains.

    d. Get all inside to safe location Kitchen area is best internal location.

    e. If a police officer or higher official arrives, they will assume command.

    f. Wait until notice of all is clear before unlocking doors.

    g. If safe to do so, move to the nearest evacuation point outside building (Pooky's Park), directly behind the Hoopa Tribal Education Building.

    h. Do not leave site, unless it has been deemed safe by the person in command. Student Support Services (required for online classes)

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

Other information:

***You will be required to (use course discussion boards and/or email, zoom, phone, google doc) to communicate with peers to complete the group project. Expect to need to be online/checking email/CANVAS several days during the week throughout the semester. ***

Field Equipment: We will have several outdoor field labs this Spring with safety protocols in place. These labs require appropriate clothing and closed-toe, traction footwear for conditions, field notebook, and miscellaneous items (sunscreen/bug repellant/ 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.

This Spring every field lab will require you to wear a mask at all times while participating in the class. Course Objective: The course will introduce you to forestry and natural resource management. We will examine the cultural and societal forces shaping the profession, technical aspects of ecological management and develop an understanding of the forces shaping forest management today. Labs are designed to give you hands-on exposure to various kinds of field ac>vi>es within forestry and natural resource management and common safety protocols used in the field. Labs are **REQUIRED** and count for almost 1/3rd of the course grade. **This Spring many of the labs will be "virtual" while a few will be In-Person outdoors. This will vary by week so you must pay attention to Canvas announcements for each week.**

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: Some of the labs this Spring will be *Virtual Labs* where you will be given an assignment to complete on your own. I may also record videos and other prompts to guide us in these virtual experiences. The presentation labs will be held on ZOOM.

The rest of the labs will face-to-face either 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 thats 3 hours per week.

Note in February I am going to split the class and half so you won't attend all 4 F2F in February but will need to attend 2 session with a smaller cohort.

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