Spring 2026

College of the Redwoods

Course Information

Semester & Year: Spring 2026

Course ID & Section #number: FNR-5-E9973 Forest Ecology and Management

Instructor’s name: Valerie Elder

Day/Time of required meetings:

Lecture: M/W 11:40-12:45 AM,

Lab: Monday's 1:15-4:25 PM

Location: AT-127

Course units: 3

Instructor Contact Information

Office location or Online AT-134 (around the corner from AT-127)

Office hours: M-TH 9-10 AM or by appointment/zoom

Phone number: 707-476-4328 (office phone doesn’t receive texts)

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

Pronto is usually the fastest way to get ahold of me, but I strive to respond in 24 hours M-F.

Required Material

Field Notebook:

Lab Assignments must be turned into a lab notebook. This can be a three ring binder, or composition style notebook, Rite-in-the Rain etc. Check the basic needs center or dollar store if you are having hard time acquiring a decent priced notebook. You will need this notebook by the first lab 1/26. The notebook will be turned in at the end of each lab and it should not be used for notes/other purposes.

Textbook: Forest Ecology 5th Edition

by Daniel M. Kashian, Donald R. Zak, Burton V. Barnes, Stephen H. Spurr
ISBN: 978-1119476085

Other PDF readings and weblinks to required readings are posted in modules or handouts.

Catalog Description

An introduction to the basic theories of forest ecology and best management practices. This course focuses on disturbance, competition, and regeneration ecology of forests and how these relate to environmental factors such as climate, soils, and biota. Laboratory exercises provide collaborative and experiential learning opportunities in the field where the linkages between theory and application are explored.

Course Student Learning Outcomes

- Discuss the use of ecological knowledge in forest management.

- Analyze the application of silvicultural techniques in achieving different forest outcomes.
- Describe the life cycle of trees and the interaction of trees and the environment.
- Lab Specific Outcome: Measure and analyze ecological characteristics of the forest.

Course Calendar

****This is a tentative course schedule, subject to change with fair notice, due to weather or other events we may need to be flexible. Check email/canvas announcements and pronto before coming to class **** Not all assignments are listed below but this serves as a reference for most*** Carpooling is encouraged for field trips you don't need a car to take this course. When possible we use 1-2 FNR vans for field trip transport.

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

The general pattern of topics will likely be:

Scientific Method

Introduction and definitions (Chapter 1)

Regeneration Ecology (Ch. 5)

Light (Ch. 8)

Temperature (Ch. 9)

Climate (Ch. 7)

Major Forest Types of the U.S. (Ch. 22)

Soils (Ch. 11)

Mineral Nutrients

Biochemistry (Ch. 19)

Site Quality (Ch. 13)

Disturbance and succession (Ch. 16 and 17)

Fire ecology (Ch. 12)

Forest Health

Ecosystem Management (Ch. 21)

Laboratories

A 3-hour lab each week is an essential part of this course. Most of these labs will be outdoor labs, so come prepared for rough terrain and inclement weather. Various lab reports, field studies, and participation will account for 30% of your total grade. A number of these labs will be *off-campus* field trips to locations like the old-growth redwoods along Bull Creek, the Arcata Community Forest and Horse Mountain. We plan carpools to these off-campus sites.

Reading: The modules will have additional reading assignments that are related to the topic covered by the module. These will frequently be peer-reviewed journal articles that will require you to read and summarize key take-away points and unanswered questions you might have.

Project : A semester long project will be included in this course and will count for 10% of the total grade. The project for this semester will focus on the challenges we face in managing different species in the face of a changing climate. Each student will pick a forest tree species and research the basic ecology and life history of the species, the management and utilization and the possible influence that a **changing climate** might have on the species in the future. Each student will then generate a report that will be in the form of a **web page** outlining the species and its ecology. Any resources should be referenced and cited and proper credit given for any photos or links you use. The web site should specifically have pages/links on:

- life history
- range and distribution
- habitat (environment and ecology including associated wildlife species)
- insects and disease pests
- management (silvicultural techniques)
- utilization
- climate change impacts

Evaluation & Grading Policy

Your grade will be determined by the percentages indicated.
Module Quizzes 30%

Module Assignments 20%
Lab Assignments 30%
Semester Project 10%
Final Exam 10%

Assignments are listed in Canvas modules 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. Most assignments will be turned in via canvas. You are responsible for knowing when your work is due.

Attendance is expected at all lectures and lab meetings. Absences from courses meetings with prior notice can sometimes be made-up at the instructors digression but some assignments cannot be made up.

An absence from an exam will receive a 0 score. If you know you will be absent from an exam discuss with instructor at least 48 hours prior to the exam so we can attempt to make alternate arrangements.

Late Work: Assignments in canvas has a **due date**- when you are expected to turn it in and a **turn-in date** the last possible date you can submit an assignment. If you cannot turn in an assignment by the due date and want to submit by the turn-in date you must email me before the assignment is due and outline your plan for submitting the assignment by the turn-in date. Otherwise, 10% per day will be deducted from your assignment grade. After using two turn-in date grace periods late assignments will be deducted 10% per day.

Note that canvas is set to assign a 0 score for assignments. So late work will temporarily show a 0 score until it is graded.

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.

Assignments will be graded typically within one week of submission, depending on instructor workload.

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

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

Educational Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, or bipolar disorder
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- Neurodevelopmental disorders such as a learning disability, intellectual disability, autism, acquired brain injury, or ADHD
- Vision, hearing, or mobility conditions

Available services include extended test time, quiet testing environments, academic assistance and tutoring through the **LIGHT Center (https://www.redwoods.edu/services/sass/light.php)** , counseling and advising, alternate formats of course materials (e.g. audio books or E-texts), assistive technology, learning disability assessments, approval for personal attendants, interpreters, priority registration, on-campus transportation, adaptive physical education and living skills courses, and more. If you believe you might benefit from disability- or health-related services and accommodations, please

contact **Student Accessibility Support Services (SASS)** (https://www.redwoods.edu/services/sass/index.php) .

If you are unsure whether you qualify, please contact SASS for a consultation: **SASS@redwoods.edu** (mailto:SASS@redwoods.edu) .

SASS office locations and phone numbers

Eureka campus

- Phone: 707-476-4280,
- Locations: Student Services building, first floor SS113

Del Norte campus

- Phone: 707-465-2353
- Location: Main building, near the Library

Klamath-Trinity campus

- 707-476-4280

Academic Integrity

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic integrity, 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 a lack of academic integrity, 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 2025-2026 College Catalog and CR Board and Administrative Policies.

AI Use Class Policy

Recent advancements in generative artificial intelligence (AI) have made large language models such as ChatGPT and Google's Bard widely available. We may use some of this

technology in our analysis in class. However, overuse of these tools in this class can undermine your learning and curtail the development of your critical and creative thinking skills. In addition, AI outputs are often unreliable and frequently subject to bias. For these reasons, the policy of this class is that **AI cannot be used at any point in the completion of class assignments unless otherwise specified**, including discussion posts. Any or all of your assignment submissions and discussion posts may be screened by AI detection software, but the real penalty for AI misuse is that you will miss out on an opportunity to learn. In Forestry and Natural Resources, we so often reference on the ground conditions to ensure environmental protections- so critical thinking is essential!

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.

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. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the **2025-2026 College Catalog (https://redwoods.elumenapp.com/catalog/2024-2025/home)** and **CR Board and Administrative Policies (https://go.boarddocs.com/ca/redwoods/Board.nsf/Public?open&id=policies)** .