CR COLLEGE OF THE REDWOODS

Syllabus for FNR 5 Forest Ecology

Course Information

Semester & Year: Spring 2022
Course ID & Section #: FNR-5-E3117
Instructor's name: Dr. Tim Baker
[if synchronous] Day/Time of required meetings: T/TH 11:40-12:45 TH 1:15-4:25
[if in-person] Location: AT 127
[if needed] Number of proctored exams: 0
Course units: 3

Instructor Contact Information

Office location or *Online: Timothy-Baker@redwoods.edu
Office hours: By appt.
Phone number:
Email address:

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 forestrs 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 *(from course outline of record)*

1. Discuss the use of ecological knowledge in forest management.

2. Analyze the application of silvicultural techniques in achieving different forest outcomes.

3. Describe the life cycle of trees and the interaction of trees and the environment.

4. Lab Specific Outcome: Measure and analyze the ecological characteristics of the forest.

Prerequisites/co-requisites/ recommended preparation

[If applicable]

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, 1st 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 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

You must grasp the basic concepts of the course and demonstrate basic proficiency with that knowledge to get a C. The better you can demonstrate understanding and proficiency, the higher your grade will be. Your grade will be determined by the percentages indicated.

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

Grades are assigned on a standard cumulative % scale (e.g. F <60%; D 60-69%; C 70-77%; C+ 78-79%; B- 80-82%; B 83-87%; B+ 88-89%; A- 90-92%; A >92%).

Late assignments are penalized 10% per class session. Module Quizzes will have a hard deadline after which they cannot be taken.

Each student must do their own original work unless specifically told otherwise. While studying in groups is encouraged any assignment or essay quiz question that has identical answers with another student or with any internet source will get a 0 on that assignment or question for all students involved.

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 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.

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 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

General Course Information:

Course structure: This course for Spring 2022 is built around lectures and discussions combined with field labs to reinforce concepts. The field labs will be held mostly on campus though a few off-campus field trips may be included depending on circumstances. Masks are required and you must follow College COVID protocols. Some lectures may be held via Zoom during the normal class period.

Course Objective: Forest ecology and management explores the basic processes of a functioning forest and examines how manipulating these processes changes the direction of forest development. In other words, the theory and practice of understanding forest establishment, composition, structure and growth. This is essentially what silviculture is though we explore more of the underlying ecology than in a traditional silviculture course. In addition, the laboratories associated with this course will introduce you to basic forest ecology studies, data handling, simple statistics and field exercises in the application of silvicultural practices (e.g. marking trees for thinning).

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

Biogeochemistry (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. Several 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. Each student is responsible for their own transportation to the field sites. You must have filled out a field trip waiver form before participating in any off-campus field trip.

Virtual labs - *Some of the labs this semester will not be held physically on campus. Instead you will be given assignments to complete on your own in the field to view, measure, research and analyze.*

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.

Drop Policy: You may be dropped from the class for missing 3 or more labs or missing any exam without a valid excuse before the 10th week of the semester.

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