Syllabus for FNR 54 Inventory Tech.

Course Information

Semester & Year: Spring 2023
Course ID & Section #: FNR-54-E4815
Instructor's name: Dr. Tim Baker
[if synchronous] Day/Time of required meetings: T/TH 10:05-11:10 and T/TH 11:40-2:50
[if in-person] Location: AT 127
[if needed] Number of proctored exams: 0
Course units: 4

Instructor Contact Information

Office location or *Online: N/A
Office hours: By appointment
Phone number: 707-497-7126
Email address: Timothy-Baker@redwoods.edu

Catalog Description

An introduction to the various techniques used in the measurement and inventory of natural resources. Topics include map reading and drawing, land navigation, tree measurement, sampling methods, and data analysis. Students will work with a variety of biometric devices in field settings and gain practical experience in their application and use.

Course Student Learning Outcomes *(from course outline of record)*

1. Explain the principles of land descriptions and develop and use functional maps of forest stands that include those land descriptions.
2. Explain common measurement techniques used in natural resource inventories and their strengths and limitations.
3. Use critical thinking to derive appropriate solutions to natural resource inventory problems both in and out of class.
4. Lab specific outcome: Conduct field inventories, analyze field data, and develop useful reports.

Prerequisites/co-requisites/ recommended preparation

None

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.

Grades for this semester will be based on the following assignment categories:

Module quizzes 20%

Problem sets 20%

Lab assignments 35%

Final field project 15%

Final Exam 10%

Grades are assigned on a standard cumulative % scale as calculated in Canvas (*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 (problem sets and lab assignments) are penalized 10% for every class session they are late. Module quizzes will have hard deadlines after which they cannot be taken.

Each student must do their own original work *unless specifically told otherwise*. While studying in groups is encouraged, your are responsible for the originality of your own work.

Admissions deadlines & enrollment policies

Spring 2023 Dates

- *Classes begin: 01/14/23*
- *Martin Luther King's Birthday (all campuses closed): 01/16/23*
- *Last day to add a class: 01/20/23*

- *Last day to drop without a W and receive a refund: 01/27/23*
- *Census date: 01/30/23 or 20% into class duration*
- *Last day to petition to file P/NP option: 02/10/23*
- *Lincoln's Birthday (all campuses closed): 02/17/23*
- *President's Day (all campuses closed): 02/20/23*
- *Last day to petition to graduate or apply for certificate: 03/02/23*
- *Spring Break (no classes): 03/13/23 – 03/18/23*
- *Last day for student-initiated W (no refund): 03/31/23*
- *Last day for faculty-initiated W (no refund): 03/31/23*
- *Final examinations: 05/06/23 – 05/12/23*
- *Commencement: 05/15/23*
- *Semester ends: 05/12/23*
- *Grades available for transcript release: approximately 05/26/23*

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.

Canvas Information

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 My CR Portal
For help logging in to Canvas, visit My CR Portal.
For help with Canvas once you're logged in, click on the Help icon on the left menu.
For tech help, email its@redwoods.edu or call 707-476-4160
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.

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 CR Police Department-Public Safety 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
- Online Tutoring Resources

General Course Information

Course structure: This course for Spring 2023 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.

Drop Policy: You may be dropped from the class if you miss 3 or more labs or fail to complete 2 or more Modules before the Friday of the 10th week of the semester.

Field Equipment: You will need appropriate field clothing and traction footwear (closed-toe). Hard hats will be required as well although the College will supply them this semester for each student if you do not have your own. Additional equipment (e.g. cruising vest, ranger compass, etc.) that will be useful this semester will be covered in the first lab. You'll also need rain gear because we will have outside labs and this spring looks like it'll be wet. Come prepared EVERY lab unless you've been told otherwise.

Text: *Forest Measurements* 6th Edition by Burkhart, Avery, and Bullock (ISBN 978-1-4786-3618-2) This text is ***strongly recommended (technically it's required but I know students) -*** it will not only serve as a good reference for this semester but also down the road when you start your career and forget some of the basics that you haven't used in a while.

Course Objectives:
We will learn how to measure trees, estimate biomass, and how to analyze the data to come up with meaningful estimates of natural resources. This will include using spreadsheets and basic statistics. Preliminary coursework

in mathematics (statistics) will be helpful but we'll go over all of the basic steps involved so you can succeed even without a prior stats course. We will do some Excel work this semester as well.

We will also learn field navigation techniques, map reading, sampling strategies, point location, and timber cruising. We'll also discuss how to apply these inventory techniques to other kinds of natural resources (i.e. birds, herbaceous plants, etc..).

Topics include:

- - Land navigation, boundary descriptions, distance, direction and elevation
- - Map sketching, reading, and interpretation\
- - Area measurements and GPS
- - Tree measurements and Log Scaling
- - Basic statistics of field data
- - Fixed-area plots
- - Point sampling
- - Cover estimation
- - Stand descriptions

Final Field Project: During the last 3-4 weeks of the semester each student will participate in conducting an inventory of an assigned stand from planning to analysis and reporting. This entails working a small group (2-3) in the field on campus and starts with a sketch map of the assigned stand, area calculations, pre-cruise plots, sample design, plot measurements, data analysis and finally report writing. This assignment is 15% of the overall grade. The output from the project will include an executive summary of the work, a statistical analysis of the data for confidence limits, and a stand and stock table summarizing your findings. We'll go over each of these in more depth as the time approaches.