Syllabus for FNR-80 Watershed Management

Course Information

Semester & Year: Spring 2025
Course ID and Section number: FNR-80-E7716
Instructor's name: Liz McGee-Houghton
Day and time of required meetings: Friday, 10:05am to 3:25pm
Class organization:
    Lecture: approx. 2 hours from 10:05 to 12pm;
    Lab (always in the field, dress appropriately) from 12:30 to 3:25
Location: AT 127
Course units: 3 units

Instructor Contact Information

Primary Contact: Email or cell phone. Also use Pronto in Canvas
Phone number: 707-599-6138
Email address: liz-houghton@redwoods.edu
Alternate email: elizhoughton@gmail.com

Catalog Description

An introduction to hydrology and the science of managing watersheds. Topics include atmospheric inputs, run-off and erosion, storm-flow components, evapotranspiration impacts and groundwater use. Students participate in field exercises on evaluation and measurement of water resources

Course Student Learning Outcomes

1. Describe and classify features and hydrologic processes of watersheds

2. Explain potential impacts of management activities on streamflow, groundwater storage, sediment production, and water quality

3. Analyze the relationships between climate, weather, and vegetation and how these factors affect the movement of water through watersheds.

4. Lab specific outcome: Assess the physical and biological characteristics of watersheds.

Prerequisites/corequisites/ recommended preparation

None

Textbooks

The following text will be the primary reading material for this course and is available free. The text will be made available through Canvas along with short papers and articles.

Primer on Watershed Management edited by Pamela J. Edwards.

Evaluation & Grading Policy

- Your final grade will be calculated based on the following:
  - grade in the canvas gradebook (the highest percentage in the class will be used to calculate the final grade)
  - Overall participation and involvement in the course. For example: a grade of B could be bumped to a B+ based on:
    - Attendance
    - Active participation (i.e. asking questions, responding to emails etc)
- *All assignments will be graded on level of completeness. All answers must be written in complete sentences unless asking for a list or one word response*

Grading categories and percentages

- The lecture portion of the course is 40% of your grade and the lab is 60%. The most important content of the course will be done in lab.

Course category		Percent of total grade
lecture		
Lecture Activities	10%	
Reading response	10%	40%
Exams	20%	
Lab		
Lab Exercises/write-ups	25%	60%
Ryan summary report	35%	

Percentages and letter grades

A = 93-100% **A-** = 90 − 92%	**B +** = 88-89% **B** = 83-87% **B-** = 80-82%	**C +** = 76-79% **C** = 70 -75%	**D** = 51 − 69% **F** = 50% or below

Assignment Details

- **Weekly Activities** (10% of total grade).

There will be assignments during the lecture that will be turned in during class

- **Weekly reading responses** (10% of total grade)

  Each week you are expected to read the material provided in each module before coming to class on Friday. The reading responses are due on Thursday evening (11:59) each week. These are short answer to no more than five questions and again help me to know how prepared you are for the weekly lab.

- **Lab write-ups** (25% of total grade)

  Labs will occur both in the classroom and out in the field. After each lab activity you are expected to write a thorough report based on the prompts provided in Canvas. These reports will be submitted through Canvas and are due by the following Wednesday (11:59) each week.

- **Exams (20% of total grade)**

  This course is divided into three sections:
  1. Watershed description,
  2. Hydrologic processes
  3. Watershed management issues

  There will be exams after each section (2 for sure, one may be part of the final). These exams will be provided through Canvas. You will be given a specified amount of time to complete each.

Make-up and Absence Policy

- In general there are no make-ups for missed lab **activities**
- Planned and unplanned absences should be communicated to your instructor and some consideration for emergencies and sickness will be considered in making up work

Posting grades and Feedback

- **Posting grades:** Grades will be posted within 10 days after turning in any assignment.
- **Feedback:** Feedback for assignments will be provided through the Canvas grade book. Please be sure you know how to check your grade and feedback in Canvas. (see the "know Canvas' and "Getting started" module)

Class schedule and daily organization

The first two hours of class will be devoted to lecture. We will be traveling to the McKay community Forest in Eureka for the final 4 hours of class. Always come prepared for the weather and bring the following:
- Clipboard
- Map (provided the first day of class)
- Writing utensils
- Day pack, snack, gloves and hat

Course Calendar

This is the tentative calendar. Depending on student understanding and mastery of topics some subject matter may be extended

Week	Date	Watershed Topic	Assignments due dates		
			Wed.	Thurs.	Fri.
1	1/24	What is a watershed?			Student survey reading questions due
2	1/31	Watershed characterization: Location, Vegetation, topography	Lab write-up	Reading Questions	
3	2/7	Watershed Characterization: Geology and Soils	Lab write-up	Reading Questions	
4	2/14	No in-class meeting			**Exam 1 Due**
5	2/21	Hydrologic cycle and processes	Lab write-up	Reading Questions	
6	2/28	Hydrologic processes: Interception and evaporation	Lab write-up	Reading Questions	
7	3/7	Hydrologic processes: Infiltration and soil water movement	Lab write-up	Reading Questions	
8	3/14	Hydrologic processes: Groundwater	Lab write-up	Reading Questions	
9	3/21	*Spring Break*			
10	3/28	Streamflow	Lab write-up	Reading Questions	
11	4/4	Watershed management issues	Lab write-up	Reading Questions	**Exam 2 Due**
12	4/11	Erosion and roads	Lab write-up	Reading Questions	
13	4/18	Water Quality	Lab write-up	Reading Questions	
14	4/25	Fish life cycle and management	Lab write-up	Reading Questions	
15	5/2	Social aspects of watershed management	Lab write-up	Reading Questions	
16	5/9	Final tour of Ryan Creek. Summarize the report on Ryan Creek	Lab write-up	Reading Questions	**Exam 3 Due**
Final	5/16	Final Ryan Creek report due			

College of the Redwoods Important dates Calendar

Spring 2025

Calendar of Important Dates		
Description	**Full Term classes**	**Other Than Full Term Classes**
Semester begins	1/18/2025	
Last Day to Register for Classes	1/17/2025	Day before first class meeting
Last Day to Add a Class	1/24/2025	Friday of the first week of class
Last Day to Drop & Receive a Refund	1/31/2025	Business day before 20% of class
Last Day to Drop w/out a "W"	2/2/2025	
Census Date	2/3/2025	20% of class
Last Day to Petition to Graduate & Petition for Certificate	3/6/2025	First Thursday of March
Last Day for Student/Faculty Withdrawal	3/28/2025	62.5% of Class
Final Examinations	5/10/25-5/16/25	
Last Day to File P/NP Option	5/16/2025	Last Day of Class
Semester Ends	5/16/2025	Last Day of Class
Grades Due	5/23/2025	One week after class ends
Grades Available for Transcript Release	5/30/2025	Viewable on Webadvisor Day after instructor enters Grade
Holidays		
Martin Luther King's Birthday	1/20/2025	All Campuses Closed
Lincoln's Birthday	2/14/2025	All Campuses Closed
President's Day	2/17/2025	All Campuses Closed
Spring Break	3/17/25 – 3/22/25	No Classes
Cesar Chavez Day	3/31/2025	All Campuses Closed
Memorial Day	5/26/2025	All Campuses Closed

Support for Academic Success

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, bipolar disorder, and ADHD
- 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
- A learning disability (such as dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
- Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, tutoring, counseling and advising, alternate formats of materials (such as audio books or E-texts), assistive technology, on-campus transportation, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact Student Accessibility Support Services (SASS). If you are unsure whether you qualify, please contact SASS for a consultation: sass@redwoods.edu.

SASS office locations and phone numbers
Eureka campus
- Phone: 707-476-4280
- Location: Student Services Building, first floor

Student Support Services

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.

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

CR Online Learning Support

Tech support, laptop loans, guides to using Canvas, installing Office 365 for free, and more.

Library Articles & Databases

Find the best library databases for your research.

Online Tutoring Resources

Participate in tutoring over Zoom.

Learning Resource Center

The Learning Resource Center includes the following resources for students:

Library Services

Library Services promotes information literacy and provides organized information resources.

Multicultural and Equity Center (MCE)

The [Multicultural and Equity Center](#) is a dynamic and inclusive place that supports all students in their academic and personal journeys at the college. We do this by creating community, home away from home, and a safe place for cultural expression, cross-cultural learning, access to college and dignity resources, and social justice work opportunities. The MEC is committed to retention and student success by offering activities related to leadership development, student connectedness and student equity. We are a student-centered program that fosters respect for all people.

Academic Support Center

The [Academic Support Center](#) offers tutoring and test proctoring for CR students.

Student Tech Help

[Student Tech Help](#) provides students with assistance around a variety of tech problems.

Extended Opportunity Programs and Services (EOPS)

[Extended Opportunity Programs and Services](#) (EOPS) provides services to eligible income disadvantaged students including: textbook awards, grants, career academic and personal counseling, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!

TRiO Student Success Program

The TRiO Student Support Services Program provides eligible students with a variety of services including academic advising, career assessments, assistance with transfer, and peer mentoring. Students can apply for the program with the [Eureka TRiO office](#) or the [Del Norte TRiO office](#).

Veterans Resource Center

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.

<u>Taking care of your mental and physical wellbeing</u>

Community College Student Health and Wellness

National Suicide Prevention Lifeline

If you are in distress or are with someone at risk right now, call or text the National Suicide Prevention Lifeline.

Call the National Suicide Prevention Lifeline
1-800-273-TALK (8255)

Text the National Suicide Prevention Lifeline
741-741

Timely Care

When you're not feeling well physically or distressed mentally, Timely Care can offer the help you're looking for in just a few quick taps. Students can schedule an appointment anytime via phone, video, and chat. [Log in or set up an account with Timely Care](#).

Mental Health Counseling

Students should text, email, or fax Shawna Bell directly for scheduling and/or services.

- Text: 707-496-2856
- Email: shawnabmft@gmail.com
- Fax and voicemail: 707-237-2318

Wellness Central

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 [Wellness Central](#).

Counseling

[Counseling and Advising](#) can assist students in need of academic advising and professional counseling services. Call, email or stop by one of our offices to make an appointment!

Counseling and Advising office locations and contact info

Eureka campus
- Phone: 707-476-4150
- Location: Student Services Building, first floor
- Email: counseling@redwood.edu
- Hours: Monday through Friday, 9am to 4pm. Summer hours may vary

Basic Needs Center

[The Basic Needs Center](#) provides for the health and safety of students by providing access to healthy food, financial resources, and referrals to safe and secure housing. [Submit a request for services and information](#).

Basic Needs Center contact info
- Phone: 707-476-4153
- Email: the-grove@redwoods.edu

CalWORKS

California Work Opportunity & Responsibility to Kids ([CalWORKs](#)) provides supportive services to student parents with children under the age of 18, who are receiving cash assistance (TANF benefits), to become self-sufficient. Services include: transportation assistance, basic student supplies, tutoring, priority registration, laptop and calculator loans, career, academic, and personal counseling, and more!

Your Responsibilities as a student

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 [2023-2024 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. 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, 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.

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 [2023-2024 College Catalog](#) and [CR Board and Administrative Policies](#).

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.

Canvas Information

- Log into Canvas at [My CR Portal](#)
- For help logging in to Canvas and general tech help, visit [Student Technical Support](#)
- Once you're logged in to Canvas, you click on the Help icon on the left menu
- Canvas online orientation workshop: [Canvas Student Orientation Course](#)

Setting Your Preferred Name and Pronouns in Canvas

Students have the ability to display personal pronouns and an alternate first name in Canvas. Students may change their pronouns on their own in Canvas (Account :: Settings :: Edit Settings). To request a change to

your preferred list name, contact [Admissions & Records](#). 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 (pdf)](#).

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](#) 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 visit [Redwoods Public Safety.](#)

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

This syllabus is subject to change at any time….I will let you know.