
WR/GR 204 SUSTAINABLE WATERSHEDS

INSTRUCTOR INFORMATION

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Communication Policy: Office hours by appointment.

I try to respond to emails and texts within 24 hours.

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PREREQUISITES FOR COURSE

Basic writing and word processing skills, basic skills in Excel or other data analysis software (i.e., R, Matlab etc.), and use of the Internet for research and data discovery. Additional references and Excel tutorials will be posted throughout the semester.

COURSE DESCRIPTION & OBJECTIVES

This course is designed to introduce you to watershed science and hydrologic processes, management actions, and sustainability concepts. We will discuss physical, chemical, biological, and social factors that affect water and watershed health and sustainability.

Objectives include: 1) Develop an understanding of the physical, chemical, and biological factors affecting water resources; 2) Build skill in collecting, evaluating, and analyzing watershed and hydrological data from various sources; 3) Learn science-based strategies for evaluating how human and natural disturbances and differing management actions affect water resources.

Upon the completion of this course, students will be able to:

- Define and delineate the boundaries of watersheds and evaluate watershed resources and management practices in terms of long-term sustainability
- Identify the components of the hydrologic cycle, the forces that drive the cycle, and evaluate each component in relation to resources of watersheds.
- Evaluate the water balance or water budget of a watershed
- Assess watershed stressors in terms of impacts to resources of the watershed
- Discuss watershed resources, processes, and management in relation to economics, environmental justice, and social justice.

- Connect watershed processes with basic concepts of water quality and ecology.
- Discuss watersheds in relation to human dimensions such as water law, water supply and demand, and water use in industry.
- Identify goals and strategies for stream reach assessment and restoration.

TEXTBOOK / COURSE READINGS

There is no required textbook for this course. Readings to supplement the recorded lectures will be made available as PDF files on Canvas or as links to web pages.

COURSE MATERIALS & EQUIPMENT

Students are expected to have access to a computer capable of accessing web sites, especially Canvas, the CSU Online learning platform. If students are unable to access certain web sites such as Google Earth or YouTube, they should notify the instructor who will make alternate arrangements as necessary.

PARTICIPATION/BEHAVIORAL EXPECTATIONS

Students are expected to have access to and regularly log in to Canvas, spending an average of 8-10 hours per week on activities related to the course. Important class information will be posted on Canvas. Lectures have been recorded using Kaltura and are posted directly on Canvas, which provides for helpful accommodations such as alternate caption tags for images on slides and written transcripts of lectures.

Please review the [core rules of netiquette](#) for some guidelines and expectations on how to behave in an online learning environment.

You will be able to fully participate in this course remotely. Lectures are pre-recorded and available on Canvas. All assignments, exams and quizzes will be completed online. Office hours will be conducted via Zoom. We are offering optional homework recitations three times each week during class hours (9:00 – 9:50 am Mountain Time), with about 1/3 of the class in each session. For those preferring in-person meetings for the homework recitations, the sessions on Mondays and Wednesdays will meet in person in the classroom, **Clark A102**. For those preferring to meet on a remote basis, the sessions on Fridays will be held via Zoom at <https://zoom.us/meeting/94203778591>.

Covid-19 Precautions and Logistics

If you decide to attend the homework recitation in person, please follow all COVID-19 safety measures outlined on the CSU Covid-19 Resources for Students web page

(<https://www.chhs.colostate.edu/covid-19-resources/information-for-students/>). Highlights to keep in mind include: All students, faculty and instructors will be required to follow state and county public health orders, guidance, protocols and University policies while on university grounds and in all buildings, including classrooms, laboratories, living, research and service spaces. These include:

- Once you choose a seat in your classroom, continue to use this seat any time you are in the classroom during the semester.
- Once you are assigned to a Monday or Wednesday homework recitation, attend only on your assigned day.

Course Schedule

As shown in the detailed course schedule available on Canvas, the course is organized into five modules, each covering a general aspect pertaining to sustainable watersheds:

Module 1: Physical aspects of the hydrologic cycle

Module 2: Physical aspects of watersheds

Module 3: Watershed disturbances

Module 4: Biological aspects of watersheds

Module 5: Human dimensions of watersheds

Each module has a duration of three weeks and includes seven lectures, two assignments, three weekly asynchronous online discussions (you must post to 5 of the total of 15 discussions during the course), a review session to prepare for the quiz for the module, and a free day. The 7 lectures, quiz review, and free day are designed to correspond to the Monday, Wednesday, and Friday class sessions in each of the 3 weeks, although the asynchronous nature of the course allows for some flexibility in when you actually watch each lecture. However, you are still expected to adhere to the due dates shown in the schedule and in the assignment guidelines, so that your homework assignments, discussion posts, and quiz submittals are made on time.

Homework Assignments

Assignments are designed to increase the student's understanding of watershed science and issues, further develop data collection and analysis skills, technical writing, and presentation skills. **Assignments are due by 5:00 pm on the due date specified** (see course schedule).

Quizzes

Four quizzes, covering each of the first four modules, will be given throughout the semester to test your knowledge of the current material, and to help support your grade for participation. The quizzes, each with ten questions, will be presented on Canvas and will be available online for a week. The quizzes will be open-book, with a generous time limit. Due dates for quizzes can be extended only under extreme extenuating circumstances with prior permission from the instructor. Each quiz will have a review session to prepare for the quiz. The review sessions can be viewed live in the classroom (M-W) or via Zoom (Fridays) during the optional homework

recitation sessions, or they may be viewed online asynchronously—your choice. **Quizzes are due by 11:59 pm on the due date** (see Course Schedule).

Final Exam

The final exam will cover primarily the final module in the course, it but will also include some material from earlier in the semester. Test format will generally include multiple choice, true/false, and matching questions. As with the quizzes, a generous time limit is provided. The exam is due by 11:59 pm on the due date.

Online Discussion Forums

Online, asynchronous discussion forums will be available for each week of the course except for Spring Break. Each student will select five of these 15 discussion forums and post, in those 5 selected forums, responses to questions about the key points covered in the lectures during that week. These forums will help to underscore the key points in the lectures, and to demonstrate course participation.

COURSE POLICIES (LATE ASSIGNMENTS, MAKE-UP EXAMS, ETC.)

Out of fairness to fellow students as well as the instruction/grading team, adherence to due dates for assignments and quizzes is critical. Homework assignments submitted up to 7 days late will be accepted but will be penalized by one grade level. Late submittals must be emailed to the TA, grader, and/or instructor as Canvas will not accept them after the due date. Homework assignments cannot be accepted more than 7 days after the due date. Assignments 8, 9, and 10 are group assignments for which due dates must be met in order to avoid penalizing the whole group. Adequate time will be allotted for quizzes and the final exam; therefore quizzes and the final exam will not be accepted after the due date.

If a student has extremely extenuating circumstances that make it impossible to turn in an assignment or a quiz on time, the student must bring this to the attention of the instructor prior to the due date to determine whether an accommodation can be made.

GRADING POLICY

Grade	Range
A+	100% to 96.67%
A	<96.67% to 93.33%
A-	<93.33% to 90.0%
B+	<90.0% to 86.67%

B	<86.67% to 83.33%
B-	<83.33% to 80.0%
C+	<80.0% to 76.67%
C	<76.67% to 70.0%
D	<70.0% to 60.0%
F	<60.0% to 0.0%

As a student enrolled in this course, one of your responsibilities is to submit course work by the due dates listed in Canvas. With that said, we take our roles as your instructor, grader, and teaching assistant very seriously, and, in fact, we care about how well you do in this course and that you have a satisfying, rewarding experience.

To that end, it is our commitment to you to respond individually to the work you submit in this class and to return your work in a timely manner. Smaller, weekly assignments and quizzes will be returned within 10 days and major assignments, exams, and essays will be returned within 14 days. (If, however, due to unforeseeable circumstances, the grading of your work takes longer than the times listed here, we will keep you informed of our progress and make every effort to return your work with feedback as soon as we can.)

The distribution of grade percentages among the various assignments and performance measures is shown in the table below.

ASSIGNMENT	GRADE POINTS (EACH)	GRADE PERCENTAGE
Discussions (5 required out of 15 available, 0.4% each)	100	2%
Written assignments (10 required, 5% each)	40	50%
Quizzes (4 required, 6% each)	100	32%
Final exam (1)	100	16%
Total:	N/A	100 %

*Keep a copy of all work created for the course, including work submitted through Canvas course learning management system.

CANVAS INFORMATION & TECHNICAL SUPPORT

Canvas is the location where course content, grades, and communication will reside for this course.

- Login: canvas.colostate.edu
- Support: info.canvas.colostate.edu



- For passwords or any other computer-related technical support, contact the [Central IT Technical Support Help Desk](#).
 - (970) 491-7276
 - help@colostate.edu

The [Technical Requirements](#) page identifies the browsers, operating systems, and plugins that work best with Canvas. If you are new to Canvas quickly review [the Canvas Student Orientation](#) materials.

ACADEMIC INTEGRITY & CSU HONOR PLEDGE

This course will adhere to the CSU [Academic Integrity/Misconduct](#) policy as found in the General Catalog and the [Student Conduct Code](#).

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course.

Further information about Academic Integrity is available at CSU's [Academic Integrity - Student Resources](#).

UNIVERSAL DESIGN FOR LEARNING/ACCOMMODATION OF NEEDS

We are committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from [The Student Disability Center](#) may be required before any accommodation is provided.

The Student Disability Center (SDC) has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodations specialist in the SDC.

THIRD-PARTY TOOLS/PRIVACY

Please note that this course may require you to use third-party tools (tools outside of the Canvas learning management system), such as Skype and others. Some of these tools may collect and share information about their users. Because your privacy is important, you are encouraged to consult the privacy policies for any third-party tools in this course so that you are aware of how your personal information is collected, used and shared.

COPYRIGHTED COURSE MATERIALS

Please do not share material from this course in online, print, or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are also subject to copyright protections. Posting course materials on external sites (commercial or not) violates both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor's express permission, including with online sites that post materials to sell to other students, could face appropriate disciplinary or legal action.

UNDOCUMENTED STUDENT SUPPORT

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit [Student Support Services for Undocumented, DACA & ASSET](#) for resources and support. Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

TITLE IX/INTERPERSONAL VIOLENCE

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and the retaliation policy please go to: [Title IX – Sexual Assault, Sexual Violence, Sexual Harassment](#).

If you feel that your rights have been compromised at CSU, several resources are available to assist:

- Student Resolution Center, 200 Lory Student Center, 491-7165
- Office of Equal Opportunity, 101 Student Services, 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological and legal aftermath of interpersonal violence. Contact the Victim Assistance Team at: 970-492-4242.

RELIGIOUS OBSERVANCES

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to fill out the [Religious Accommodation Request Form](#) and turn it in to the Division of Student Affairs, located on the second level of the Administration building.

Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

CSU PRINCIPLES OF COMMUNITY

Inclusion: We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.

Integrity: We are accountable for our actions and will act ethically and honestly in all our interactions.

Respect: We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

Service: We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

Social Justice: We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

DIVERSITY AND INCLUSION

The [Mission, Vision, and Focus](#) webpage of the Vice President for Diversity includes a comprehensive statement of CSU's commitment to diversity and inclusion.