

Environmental Studies 128
Spring 2024
Thursdays 3:00 – 5:45 PM

San Jose State University
Environmental Studies Department
EnvS 128-01, Water Resources Management Spring 2024

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Office Hours:	By appointment
Class Days/Time:	Thursdays, 3:00 – 5:45 pm
Classroom:	Hugh Gillis Hall Rm 225 (HGH225)
Prerequisites:	Upper division standing or graduate student status; EnvS 129 and STAT 095 or appropriate math course; or instructor consent

Course Description

This course covers water uses and supplies; hydrology; flood control; groundwater and groundwater aquifers; water quality; water resource measurement and data methods; environment impacts and mitigation of water management

Learning Objectives

- water supply reliability
- water quality for public health and the environment
- watershed management
- environmental restoration
- flood control
- water treatment
- anticipating and responding to climate change

This course will expose you to both quantitative and qualitative aspects of these areas using a variety of teaching techniques including lectures, problem sets, discussions, a field trip, and guest lectures. We will investigate cases within California, the U.S. and internationally.

Over the semester, you will:

- gain a working familiarity of major aspects of water resources management (e.g., hydrology, water pollution, irrigation) and their quantitative parameters;

- have an opportunity to explore the role of a water resources manager or stakeholder through a course project;
- practice communicating (both orally and in writing) your findings to others.

Required Text, Reading, and Film

The following book is used extensively throughout this course. Please purchase or rent a hardcopy or an electronic copy of it. The book is available at the Spartan Bookstore, Amazon.com, and from the publisher, Wiley, as an ebook.

Cech, Thomas V. 2018. **Principles of Water Resources: History, Development, Management and Policy**, 4th ed. John Wiley and Sons Inc., Hoboken, NJ.

ISBN-10: 1118790294 ISBN-13: 9781119396574

Other required readings and videos will be available to students through Canvas.

Student Responsibilities

Active participation in the course material and staying current with assignments enhance the learning journey and contribute to academic success. To optimize your experience, ensure you complete assigned readings before online discussions and in-person meetings. Engage meaningfully in class discussions and regularly check the Canvas announcements section throughout the week.

For a well-rounded approach, establish a weekly schedule for this semester that allocates a minimum of three hours per week for studying this course. Additionally, allocate extra time for more extensive writing assignments as needed.

Office Visits

Please reach out through email or Canvas message for an appointment to meet through Zoom.

Additional Etiquette and Advice

- Attendance at in-person class sessions is crucial, as essential information not found in the textbook will be presented. If you cannot attend, ensure to acquire class notes and handouts from a classmate.
- Complete assigned readings **prior** to attending class.
- Please silence cell phones and refrain from messaging during face-to-face class meetings. Additionally, avoid using computers or tablets in class.
- Demonstrate respect for the instructor, classmates, and guest speakers by consistently arriving punctually for in-person class meetings. Late arrivals may be at the instructor's discretion and could result in restricted entry. Similarly, show courtesy to online discussion participants by contributing timely and thoughtful insights.

Assignments and Grading Policy

Assignments

The course assignments listed below will help you enhance your knowledge of water resource management issues and strengthen your data analysis and critical thinking skills. Also indicated below is the number of course points (out of 100) that each assignment is worth. Specific instructions will be available on the class website for each assignment, including grading criteria.

- 4 problem sets 20 points (5 points each)
- Group Reading Summary and Presentation 15 points
- Midterm Exam 10 points
- Viewing a Valley Water Board Meeting Review 5 points
- Purification Center visit 5 points
- Final Exam 15 points
- Discussion participation, other assignments, quizzes 15 points
- Colorado River Workshop Assignment 15 points

Extra Credit

Up to 2 points for attending a local water-related event and writing a 250- to 500-word summary.

Course Grading

Your course grade is determined by summing the number of course points you earn through completing course assignments. The maximum number of course points is 100. The scale below shows how final letter grades correspond to your total course points.

98 - 100	A+	73 – 77	C
93 - 97	A	70 – 72	C-
90 - 92	A-	68 – 69	D+
88 - 89	B+	63 – 67	D
83 – 87	B	60 – 62	D-
80 – 82	B-	59 and less	F
78 – 79	C+		

Assignment Due Dates and Late Assignments

Generally, assignments are due at the beginning of class on the date specified in the assignment description. You will be told in writing when each assignment is due and whether you should submit a paper or electronic version of your work. Please make every effort to submit assignments on time and make regular contributions to class discussions. Late work throws everyone off and is disruptive to your fellow students and course instructors.

Assignments arriving more than an hour past the due date will incur a grading penalty of 10% with an additional 10% deducted every 24 hours after that. Assignments, especially problem sets, submitted later than seven days are not accepted without previous instructor consent and will require documentation from a third party (e.g., a physician). The only acceptable excuses for late work are illness and extenuating family or personal circumstances. Work is not considered an extenuating

personal circumstance. Due dates for assignments and quizzes may change. To make sure you get your work in on time, visit the class website regularly.

General Class Schedule

Subject to change without notice. Attend class to stay current.

Date	Topic	Reading (Due before class date)	Assignments
25-Jan	Course Overview, significant figures and unit conversions	Chapter 1 - History	Sign up for Group reading summary
1-Feb	Hydrologic cycle, climate, and weather; hydrology averages, data patterns	Chapter 2 - Hydrologic cycle, climate, and weather	Problem Set #1 assigned
8-Feb	Surface Water Hydrology	Chapter 3 - Surface Water Hydrology	Group reading summary (Chapter 3)
15-Feb	Groundwater	Chapter 4 - Groundwater	Problem Set #1 due Problem set #2 assigned Group reading summary (Chapter 4)
22-Feb	Dams	Chapter 7 - Dams	Group reading summary (Chapter 7)
29-Feb	Local water supply system/ Water Conservation/ Water Demand/Imported Water	VW Water Supply Master Plan	Problem Set #2 due Problem Set #3 assigned Watch a VW Board Meeting, write reaction
7-Mar	The Economics of Water/ Colorado River System Background	Chapter 13 - The Economics of Water	Summary/Reaction to video due Group reading summary (Chapter 13) Assign the end of year project (Colorado River Workshop)
14-Mar	Climate Change and Water Sustainability	https://archive.ipcc.ch/pdf/technical-papers/climate-change-water-en.pdf : Section 3.2 and 3.3, pages 38-51	
21-Mar	MIDTERM REVIEW		Problem set #3 due
28-Mar	MIDTERM		
4-Apr	SPRING BREAK WEEK		
11-Apr	Environmental impacts	Chapter 12 - Water, fish and wildlife	Problem set #4 assigned

			Group reading summary (Chapter 12) Visit to the Purification Center in person or https://prezi.com/view/uvtrDq73PpbTIR0sbcfv/
18-Apr	Water Quality	Chapter 5 - Water Quality	Group reading summary (Chapter 5)
25-Apr	Water Treatment	Chapter 11 - Drinking/Wastewater Treatment	Group reading summary (Chapter 11) Purification Center Review Due
2-May	Colorado River Presentations/Workshop		Problem set #4 due
9-May	Course Review		Workshop Reflections Due
16-May	FINAL EXAM		

Other Important University Policies and Resources

General Expectations, Rights and Responsibilities of the Student

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. To learn about these rights and responsibilities, please read the Student Rights & Responsibilities Policy S16-15 [pdf]: Students' Rights and Responsibilities and SJSU's current semester's Policies and Procedures. These Policies and Procedures include links to relevant information should questions or concerns about a class arise. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not address the issue, it is recommended that the student contact the Department Chair as the next step. At any point, a student may contact the University Ombudsperson.

Academic Integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The Academic Integrity Policy F15-7 [pdf] requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. Visit the Student Conduct and Ethical Development website for more information.

Accommodation for Students' Religious Holidays

The Religious Holidays Accommodation Policy S14-7 [pdf] states that San José State University shall provide accommodation on any graded classwork or activities for students observing religious holidays that require absence from class. It is the responsibility of the student to inform the instructor, in writing, about such holidays before the add deadline at the start of each semester. If such holidays occur before the add deadline, the student must notify the instructor, in writing, at least three days before the absence. It is the responsibility of the instructor to make every reasonable effort to honor the request without penalty, and of the student to make up the work missed.

Adding and Dropping Classes

Students are responsible for understanding the policies and procedures about add/drop. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars

webpage. Students should be aware of the current deadlines and penalties for dropping classes (Late Drop Information).

For more information on how to add/drop classes visit the Office of the Registrar's website.

Attendance and Participation

Attendance is the responsibility of the student. However, attendance itself may not be used as a criterion for grading. Students are expected to attend all meetings for their courses, as they are responsible for all material covered, and active participation is frequently essential to ensure maximum benefit to all class members. Participation may be used as a criterion for grading when the parameters and their evaluation are clearly defined in the course syllabus and the percentage of the overall grade is stated. The full policy language can be found in the Presence in Class Policy F15-3 [pdf].

Accommodations for Students with Disabilities

Presidential Directive 97-03 [pdf] requires that students with disabilities requesting accommodations register with the Accessible Education Center (AEC) to establish a record of their disability. AEC will contact the instructor with further details, if needed.

If special arrangements are needed in cases of emergency or if the building must be evacuated, please make arrangements with the instructor.

Consent for Recording of Class and Public Sharing of Instructor Material

The Recording & Sharing Class Material Policy S12-7 [pdf] requires students to obtain instructor's permission to record the course. The following criteria define expectations relating to recording a course.

Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without approval. You may not publicly share or upload instructor generated material such as exam questions, lecture notes, or homework solutions without instructor consent. This prohibition includes sharing information with third parties and on websites.

You must obtain the instructor's permission to make audio or video recordings in class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.

Permission from the instructor, whether in writing or orally, may extend to either a single class or the entire semester.

In classes where active participation of students or guests may be on the recording, permission of those students or guests must be obtained as well.

Timely Feedback on Class Assignments

Per Timely Feedback on Assignments Policy S20-2 [pdf], all students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades.

Workload and Credit Hour Requirements

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course-related activities including but

not limited to internships, labs, and clinical practice. Other course structures will have equivalent workload expectations as described in the syllabus.

University Resources for Students

Counseling and Psychological Services

The SJSU Counseling and Psychological Services is located on the corner of 7th Street and San Carlos in the new Student Wellness Center, Room 300B. Professional psychologists, social workers, and counselors are available to provide confidential consultations on issues of student mental health, campus climate, or psychological and academic issues on an individual, couple, or group basis. We also offer numerous workshops for students every semester.

To schedule an appointment or learn more information, visit the Counseling and Psychological Services website.

Peer Connections

Peer Connections is your campus-wide resource for mentoring (time management, note taking, learning strategies, adjusting to college, etc.) and tutoring (including over 200 different courses and undergraduate writing). In addition, Peer Connections provides classroom support through Supplemental Instruction Leaders, Learning Assistants, Peer Mentors, and Embedded Tutors. Your instructor will announce if a Peer Educator is in your class. Peer Connections also has a welcoming space for studying in the Student Services Center right near parking. All services are FREE to SJSU students.

Please visit the Peer Connections website for more information on services, hours, locations, or a list of current student success workshops. To make appointments for mentoring or tutoring, you may visit Spartan Connect and log in using your SJSU student ID number and password.

SJSU Cares

Students experiencing challenges meeting their basic needs including, but not limited to, access to food, shelter, and a safe space are encouraged to contact SJSU Cares. Students who feel that their class performance may be affected by these challenges are encouraged to notify their professors, if comfortable doing so. Faculty members may be able to provide flexibility within the course for students working with a case manager.

Student Technology Resources

Computer labs and other resources for student use are available in:

Associated Students Print & Technology Center in the Student Union (East Wing 2nd floor Suite 2600)
The Spaces and Technology page at the MLK Library.

Student Computing Services

Computers at the Martin Luther King Library for the public at large
Additional computer labs may be available in your department/college
A wide variety of audio-visual equipment is available for student checkout from Collaboration & Academic Technology Services located in IRC Building. These items include DV and HD digital camcorders; digital still cameras; video, slide and, overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens, and monitors.

Writing Center

The SJSU Writing Center offers a variety of free resources to help students become better writers. The center offers writing resources, workshops, and one-on-one and small-group tutoring sessions. Services support writing for students in all disciplines and at all levels. The SJSU Writing Center has two in-person locations, Clark Hall, Suite 126 and MLK Library, 2nd floor. Workshops and tutoring are also available through online platforms.

Visit the Writing Center website to make an appointment, or to use the many resources available online.