

GEOGRAPHY 3434 – WATER RESOURCES MANAGEMENT TEXAS STATE UNIVERSITY, FALL 2004

Instructor: Mark A. Fonstad

Office: 383 Evans Liberal Arts (ELA) Building

Telephone: (512) 245-7809

Email: mfonstad@txstate.edu

Office Hours: 9:00 AM – 11:00 AM Tuesdays and Thursdays or by appointment

Class Time: 11:00 AM – 12:15 PM Tuesdays and Thursdays

Classroom: Evans Liberal Arts (ELA) Building, Room 311

Course Line Number: 270173

Lab Instructor: Alexis Buckley (there is a separate syllabus for the required lab section)

COURSE DESCRIPTION

This course is an introduction to use, conservation, and management of water resources. Through the use of professional sources, the students will develop a working knowledge of the hydrologic, water quality, legal, economic, political and social factors that determine water availability, hazards, use, demand, and allocation.

Water resources are among the most important and most disputed issues that affect the public today. This critical role is the result of the fact that water is absolutely necessary for almost all economic activities, is the habitat for legally protected species, and is one of the most valuable and desirable aesthetic resources. In this course we will study water resources from both the natural science and human management perspectives. On account of the importance of water resources and the fact that a working knowledge of water resources is required for many environmental professional positions, this will be a rigorous course that will provide students with professional experience in water resources.

LEARNING OUTCOMES

Knowledge outcomes.

1. Students will compile basic concepts affecting groundwater availability and water quality.
2. Students will discuss the major federal, state, and local laws affecting water resources.

Skills outcomes.

1. Students will analyze and utilize basic hydroclimatic relationships from published discharge and precipitation data.
2. Students will demonstrate the use of professional water resource data to critique water management policies.

COURSE PREREQUISITES

GEO 2410, Introduction to Physical Geography

REQUIRED COURSE MATERIALS (*Available at the University Bookstore*)

Cech, Thomas V., 2003, *Principles of Water Resources: History, Development, Management, and Policy*

Getches, David H., 1997, *Water Law in a Nutshell (3rd Edition)*

EVALUATION AND GRADING POLICIES

I will evaluate your performance and assign grades based on two major areas of work in this course. First, I will assess your knowledge of the lecture material with two examinations (a midterm and a final). Second, your performance in the laboratory section is also used to evaluate your final grade.

All students are expected to take exams at the scheduled time. Make up exams will be given to students who have excused absences; however, make up exams will be different than those given at the scheduled time, and make up exams for students with unexcused absences will be given on the same day as the Final Exam. Exams should be returned to students within one week of the exam date.

There is a maximum of 300 points for all of the lecture exams and lab exercises. The basis for grading will be as follows: 100 points for the midterm examination, 100 points for a final examination, and 100 points for the laboratory section grade. The final grades will be determined based on the following rules:

A	≥90% (≥270 points)
B	≥80% and <90% (240 – 269 points)
C	≥70% and <80% (210 – 239 points)
D	≥60% and <70% (180 – 209 points)
F	<60% (< 180 points)

CLASSROOM AND ATTENDANCE POLICIES

Good attendance in lecture and lab is key to your success in this course. First, the exams will be based on lecture material. Second, the lab schedule is rigorous, and you will quickly fall behind if you repeatedly miss labs. If you have an unexcused absence on an exam or assignment due day, you will receive a zero on that exam or assignment.

If you must miss class or an exam because of an illness, a personal emergency, or some other extenuating circumstance, please contact me as soon as possible so I can make alternative arrangements for you (this is key). Of course, good attendance means more than just showing up for class. Please read and adhere to the policy on classroom etiquette that appears below. These codes of conduct will allow everyone to participate equally as learners. Thank you for your cooperation.

In the Department of Geography, instructors strive to create an atmosphere of mutual trust and respect in which learning, debate, and intellectual growth can thrive. Creating this atmosphere, however, requires that instructors and students work to achieve a classroom in which learning is not disrupted. At the most basic level, this means that everyone should attend class, be prepared with readings and assignments completed, and that students pay attention. This means no conversations with friends, reading the newspaper, coming late, or leaving early. Such behavior is disruptive to the instructor and to your fellow classmates.

STUDENTS WITH DISABILITIES

Students with special needs (as documented by the Office of Disability Services) that will require compensatory arrangements must contact the instructor no later than the fourth class period to discuss specific arrangements and logistics. Students who have not already done so will be required to contact the Office of Student Disability Services located at LBJ5-5.1 (245.3451). *Texas State is dedicated to providing these students*

with necessary academic adjustments and auxiliary aids to facilitate their participation and performance in the classroom.

SWT ACADEMIC HONESTY POLICY

Learning and teaching take place best in an atmosphere of intellectual fair-minded openness. All members of the academic community are responsible for supporting freedom and openness through rigorous personal standards of honesty and fairness. Plagiarism and other forms of academic dishonesty undermine the very purpose of the university and diminish the value of an education. Specific sanctions for academic dishonesty are outlined in the *Texas State Student Handbook*.

Schedule by Week

Topics

Aug 24, 26	<i>No Class Monday</i> Introduction to Water Resources
Aug31, Sep 2	Hydrology
Sep 7, 9	Hydrology, Cont.
Sep 14, 16	Hydrology, Cont.
Sep 21, 23	Hydrology, Cont.
Sep 28, 30	Water Quality
Oct 5, 7	Exam 1 (Tuesday, October 5) Introduction to Water Law
Oct 12, 14	Water Law, Cont
Oct 19, 21	Water Law, Cont
Oct 26, 28	Federal Water Policy
Nov 2, 4	Federal Water Policy, Cont.
Nov 9, 11	Water Planning
Nov 16, 18	Water Supply
Nov 23, 25	Dams, Floods, etc.
Nov30, Dec 2	Dams, Hydro-electric, etc. (No Class W,F)

Dec 5, 7 Integrated Watershed Management
 No Class Thursday
Dec 9 **Final Exam, Dec 9, 11:30 am – 2:00 pm**

ABOUT THE INSTRUCTOR

The instructor is Mark A. Fonstad, assistant professor of geography. He is a specialist in spatial and hydrological analysis of river systems, theoretical geomorphology, and applied remote sensing. Mark received his Ph.D. in Geography from Arizona State University (2000) where he researched mountain fluvial systems and the prediction of channel change in New Mexico. For the past four years, Mark has directed the field research on channel morphology, watershed hydrology, and the remote sensing of rivers in Yellowstone National Park.

