

**HYDR/ENVE 430 Texas Water Resource Management**

**Credit Hours: 3**

**Department: Mathematics, Physics and Engineering**

**Required or Elective (circle one)**

**Current Catalog Description:**

**Texas Water Resource Management (3-0)** The ecological relation of water in this biosphere with special reference to the human role; the role of behavioral sciences (social, legal, economic, political, and psychological) in the development, conservation, regulation, and utilization of water resources; current political structure and laws pertaining to the administration of water resources in the state of Texas.

**Course Schedule:**

3 lecture hr/ wk, 0 lab hr/wk

**Textbook(s):**

**Coordinator:**

Name: Beth Jones, P.E.  
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**Pre/corequisites by Topic: (list course number, title, and specify if co-requisite)**

ENVE/ HYDR 310 - Basic Hydrology  
POLS 202 – Texas Government

**Course Grading:** This course is designated as a Writing Intensive Course. As a Writing Intensive Course, at least 25% of the final grade will be based on demonstrated writing skill. However, students will fail the course if they fail the Writing Intensive portion of the course. Course evaluation will be at the discretion of the teaching faculty, unless specifically mentioned herein, and expressly outlined in the course syllabus. Evaluation will be based on performance in:

1. Exercises;
2. Examinations;
3. Presentations; and
4. Papers.

**Program Outcome and Course Learning Goals Map:**

The Program Outcomes for Environmental Engineering are:

- A. an ability to apply knowledge of math, engineering & science
- B. an ability to design and conduct experiments, as well as to analyze and interpret data
- C. an ability to design system, component or process to meet needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- D. an ability to function on multi-disciplinary teams
- E. an ability to identify, formulate, and solve engineering problems
- F. an understanding of professional and ethical responsibility
- G. an ability to communicate effectively
- H. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- I. a recognition of need for, and ability to engage in life-long learning
- J. a knowledge of contemporary issues
- K. an ability to use techniques, skills, and modern engineering tools necessary for engineering practice.

Course Goals	Program Outcome(s):
Upon completion of this course with a C or better, students will	
1. Students will demonstrate their familiarity and understanding of various agencies and organizations with which the practicing	D, F, G, H, I, J

hydrologist and environmental engineer in the state of Texas may have to interact.	
2. Students will demonstrate their familiarity and understanding of the rules, laws and regulations that govern Texas water resources and their development.	B, D, F, G, H, I, J
3. Students will demonstrate their familiarity and understanding of the history of the present day structure of Texas water regulations and policies and the agencies that come into play in their implementation and enforcement.	D, G, H, J
4. Students will demonstrate their understanding of the limits of law in developing environmental and water policy based on scientific principles.	D, G, H, I, J
5. Students will demonstrate their understanding of how science and politics interact in the field of environmental and water law. They will demonstrate their knowledge of to apply legal principles to engineering problems.	B, C, D, F, G, H
6. Students will demonstrate their understanding of why science, politics and law are uneasy bedfellows.	D, G, H, J
7. Students will demonstrate their knowledge of the Texas Board of Professional Engineers regulations and that licensing board regulations vary from state to state.	F, G, H, I, J

**Contribution of Course to Meeting the Professional Requirement:**

Engineering Topics: 100%

**Other Information:** Unless otherwise stipulated in this master syllabus, the following items are subject to faculty discretion as described in each faculty member's individual course syllabus:

1. Class policies;
2. Exams;
3. Papers;
4. Homework/Quizzes/Classwork; and
5. Projects.

**Absence policy:**

**Unexcused absences:** Students who miss class without prior approval of their instructor will receive a grade of zero on missed in class assignments, quizzes, and/or exams.

**University excused absences:** Authorized absences must be approved by your instructor in advance of the absence, unless you have an emergency or illness, which still must be approved *immediately* upon your return. Make-up work must be completed outside of normal class hours within ONE WEEK following an excused absence. IT IS YOUR RESPONSIBILITY to see your instructor and make arrangements for make-up work.

**Academic Honesty:**

Cheating, plagiarism (submitting another person's materials or ideas as one's own), or doing work for another person who will receive academic credit are all-impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure of give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged material as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

**Students with Disabilities Policy:**

It is the policy of Tarleton State University to comply with the Americans with Disabilities Act (ADA) and other federal, state, and local laws relative to the provision of disability services. Students with disabilities attending Tarleton State University may contact the Office of Disability Services at (254) 968-9478 to request appropriate accommodation. Furthermore, formal accommodation requests cannot be made until the student has been officially admitted to Tarleton State University.

**Status of Continuous Improvement Review of this Course:**

**Prepared by:** *Beth Jones*

**Date:** *August 23, 2007*

**Reviewed by:** *Denise Martinez*

**Date:** *August 24, 2007*