

MEMORANDUM FOR STUDENTS ENROLLED IN CENG 5330 CENG 4330

SUBJECT: Water Resources Planning & Management) Administrative Instructions

1. Water is an increasingly critical issue at the forefront of global policy change, management and planning. There are growing concerns about water as a renewable resource, its availability for a wide range of users, aquatic ecosystem health, and global issues relating to climate change, water security, water trading and water ethics. Our main objective in the course will be to gain a solid understanding of the technology, management, and political tools required in managing a resource that is under relentless pressure from development, pollution and climate change. We will explore multiple disciplines to understand and help resolve problems of water quality and scarcity from a global perspective. The focus of the course is on local and global problems, the water industry, water law, water security, natural systems protection, water use efficiency and management tools. I am confident that you will find this course to be interesting, challenging, and rewarding. Through the case studies and foundational material covered in the course.
2. Because of this course's emphasis on real world situations, case studies are used in conjunction with other supplier materials material. In addition to cases presented by the instructor, students will prepare a present their own case studies. Since this class is in an on-line format the cases will be presented in a discussion format.
3. I teach at the following times and locations throughout the week:

<u>Course</u>	<u>Time</u>	<u>Days</u>	<u>Room</u>
CENG 5330/4330	1730 – 1850	T-Th	RBS 2019
CENG 5330/4330	ZOOM (Same)	SAME	ZOOM

4. You are encouraged to seek assistance on any item assigned or presented in the course!
5. TEXTBOOK: *Water Resources Planning and Management*, by R. Quentin Grafton and Karen Hussey, Cambridge University Press. ISBN 978-0-521-76258-8 (2011) –version available from several on-line book dealers.
6. Exams and Grading:
 - a. Grade Breakout and Cutoffs: Undergraduate and Graduate

<u>Course Points</u>		<u>Grade Scale</u>
Mid-term Exams (400)	400 (20%)	A+ 96.67%..1933
Group Project with Peer contribution	500 (25%)	A 93.33%..1866
Individual Project	400 (20%)	A- 90.00%..1800
Professional Practice Grade (includes the problem assignment completions)	200 (10%)	B+ 86.67%..1733
Final Examination	<u>500</u> (25%)	B 83.33%..1666
	2,000 (100%)	B- 80.00%..1600
		C+ 76.67%..1533
		C 73.33%..1466
		C- 70.00%..1400

If you earn less than 65% on Exams or if you fail to earn at least 50% on the Final you may fail the course, **regardless of your course grade**. Of course, final grades are only A, B, C, F. Therefore, a C- is a C for a final grade. This distribution is to graphically remind you of how well you are doing.

- b. **Graduate students** will be required to complete an independent research on a specific Water Resource instance and present their findings to the class as part of their course grade. 1000 points broken down as follows
- 1) 500 points written report
 - 2) 300 points presentation to class
 - 3) 200 point for the production of a FGAQ document associate with your selected topic
Guidance and format for deliverable on this section of grading will be provided during the third week of class

- c. Mid-Term Exam and Final Exam:

- 1) The date for Mid-Term Exams are included in the course schedule. Attachment 1 Report any conflict to me as soon as possible prior to the exam.
- 2) The Mid-Term Exams and the Final Exam will be available 48 hours prior to the due time. Because you are to use your analysis skills in the course any resource you have is available for you to address the exam's questions. Citation of references will be required on the exam. The exam(s) must be submitted by the published deadline. Signature of honesty policy on exam will be required for grade consideration.
- 3) Solutions to all work will be posted on Blackboard.

- d. Collection of Student Work: Throughout the summer I will retain copies of students work for the course and outcomes notebooks. This will require me to make a copy of your work, keep your original and return a copy of the graded work to you. I will not draw attention as to what level of work you accomplished.

- e. Embedded indicators of accomplishment of program outcomes: At times throughout the semester, portions of student work will be analyzed to determine if our program is accomplishing stated program outcomes based on established metrics. **If your work is below the minimum established metric, you will be required to repeat the assignment or that portion of the assignment until you achieve the minimum acceptable standard based on the metric.**

7. Homework: When problem works are assigned the work is mandatory and becomes part of your professional practice grade. Failure to submit any required homework will result in an incomplete. As an engineer your goal is to make a clear, logical, and professional presentation of your work, which is both accurate and correct. As such, both your presentation and the accuracy of your work are important, and both will be graded. It is critical that you show all of your work and leave "foot prints" so that it can be easily followed. No guess work should be required to see what you did. All submissions are due by 8:00 p.m. on the assignment due date. Submissions should be sent to me at tnalbone@uttyler.edu .

- a. Homework:

- 1) Use the template provided as Enclosure 4 for your homework assignments.
- 2) Label you homework file in the following manner:
lastname_assignmentnumber_datecompleted.
- 3) All submissions must be in MS WORD format. The assignment will be graded and returned as a .pdf document format with notations and a grade for the assignment. If the assignment includes calculations you may submit those as hand calculations in a .pdf (scanned) document format of your work or you may submit as a typed document, your choice.
- 4) Late Submissions. A “COORDINATED LATE” submission occurs when you will miss the suspense for a graded homework assignment and you contact me in advance. Notification immediately before the submission will not suffice. Point cuts up to the amounts below **may** be assessed for a “COORDINATED LATE” submission:
 1. <12 hours late a deduction of 25% of the earned grade
 2. 12-24 hours late a deduction of 50% of the earned grade
 3. More than 24 hours late No credit. **Assignments must be submitted.**

Obviously there are circumstances that will occur and make a timely submission impossible and I will work with you when and if they occur.

- 5) All homework in this course must be properly documented. As you are having your work reviewed it is likely that you might receive help just simply document it. Information from the course textbooks (equations and outlines of procedures), class notes, or me is considered immediately available to all students and need not be acknowledged or documented. **YOU ARE REQUIRED TO ACKNOWLEDGE AND DOCUMENT ALL OTHER ASSISTANCE AND REFERENCES USED other than those associated with the course.** Documentation will be accomplished in accordance with any manual for writing, footnote or endnote, for papers, but for written homework, just place the documentation right at the point you received help using Who and what assistance.

- b. Assigned readings. Doing the assigned reading will help you to understand the material presented during the instruction and will fill in gaps for things. **(Unfortunately with the short duration of the course, I will not cover everything in the textbook).** The additional reading will also make you more familiar with terms and concepts to be covered.

8. Professional Practice - During this semester, a portion of your grade in this course (10%) will be derived from a level of professional practice expectations. These expectations include a professional demeanor and work ethic (attitude), consistent daily preparation (assignment reading), commitment to learning and fulfilling obligations (attendance), quizzes, and being engaged in class activities (participation).

9. **Students Rights and Responsibilities:** To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link:
<http://www.uttyler.edu/wellness/rightsresponsibilities.php>

10. **Grade Replacement/Forgiveness and Census Date Policies:** Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will

be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- a. Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- b. Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- c. Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- d. Being reinstated or re-enrolled in classes after being dropped for non-payment
- e. Completing the process for tuition exemptions or waivers through Financial Aid

11. **State-Mandated Course Drop Policy:** Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.
12. **Disability Services:** In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact the Disability Services office in UC 3150, or call (903) 566-7079.
13. **Student Absence due to Religious Observance:** Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.
14. **Student Absence for University-Sponsored Events and Activities:** If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.
15. **Social Security and FERPA Statement:** It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

16. **Emergency Exits and Evacuation:** Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

J. Torey Nalbome
Ph.D. CIH
CENG 5330/ CENG 4330

Encls.

Enclosure 1: Course Schedule

Proposed CENG 5330 topics (subject to change or modification)

LESSON No.	Date	Material Covered	Reading Assignment	Assignment Distributed	Assignment Due	
		Understanding Water				
1	8/25	The worlds changing water picture	Chapters 1 & 2	Exercise #1		
2	8/27	Water quality above and below	Chapters 3 & 4			
3	8/31	Human effects on water resources	Chapter 6	Exercise #2	3	
		Water Resource Planning and Management				
4	9/2	Water regulations and sustainability	Chapters 8 & 9	Exercise #3	Exercise #1	
	9/7	Labor Day				
5	9/9	Accounting for Risk and uncertainty	Chapter 10			
6	9/14	Growing an advocacy community	Chapters 11 & 12	Exercise #4	Exercise #2	
7	9/16	Integrated water resource mgmt.	Chapters 13 & 14			
8	9/21	Applying IWRM in real world		Exercise #5	Exercise #3	
		Water Case studies				
9	9/23	Achievable outcomes	Chapter 15		Exercise #4	
10	9/28	Water supply limitations	Chapter 16	Exercise #6		
T1	9/30	Mid Term Exam #1				
11	10/5	Water and Agriculture	Chapter 17 & 20	Term paper	Exercise #5	
12	10/7	Drought and Flood Protection	Chapter 19	Exercise #7		
13	10/12	Urban Water Management	Chapter 23			
14	10/14	Groundwater hydraulics Review				
15	10/19	Groundwater Contamination	Chapter 25		Exercise #6	
16	10/21	Industrial water use/contamination	Chapter 26			
17	10/26	Rural water availability	Chapter 28	Exercise #8	Exercise #7	
18	10/28	Social Equity	Chapter 29			
19	11/2	Flood Management		Exercise #9	Exercise #8	
20	11/4	Water Management issues	Chapter 31			
21	11/9	Calculating water demands		Exercise #10		
22	11/11	Water consumption and coops	Chapter 32		Exercise #9	
23	11/16	International management failures	Chapter 34		Exercise #10	
24	11/18	Water Trading	Chapter 35		Paper Due	
	11/23 - 27	Thanksgiving Holiday				
		(Fall Break)				
23	11/30	World Consequences of Mgmt.				
24	12/2	Future Water Issues		Final Exam		
25	12/9	Final Exam Due 5:00 p.m. (1700 hrs)	Tenative		Final Exam	

Enclosure 2: Course Objectives

Course Objectives

1. Describe the fundamentals of the water cycle, hydrology, and water use as they relate to water resources planning.
2. Explain the issues and principles relating of integrated water resource management.
3. Apply planning and management tools to real-world water resource problems.
4. Analyze and evaluate local and global water policy and water resource management issues.
5. Explain planning and management strategies used to facilitate stakeholder involvement.
6. Derive and apply simulation models to prioritize water resource decisions.
7. Categorize emerging international issues in water resources management.



Enclosure 3: Introduction to Dr. J Torey Nalbone

I was born on Staten Island, New York and lived there until the age of 10, when I moved to Spring, Texas a suburb 20 miles north of Houston. I completed high school in 1977 and was accepted to Baylor University in Waco, Texas. Originally as Pre-Med, I earned a B.S. in Biology with a minor in Chemistry in 1981 and more importantly met my future wife (Katherine). After graduating from Baylor, I entered graduate school at the University of Texas Health Science Center at Dallas (Southwestern) for graduate study in Forensic Sciences and began working at the Dallas County Crime Lab (Southwest Institute of Forensic Sciences, SWIFS). In that program I learned toxicology and legal proceedings for the investigation of death and accidents. I then transferred to the University of Texas at Dallas and pursued a Master's degree in Environmental Science Engineering and also becoming a first-time Dad with the birth of our daughter (Adrienne). In 1987 we moved to Medford, Oregon where I took a position as Enforcement Manager for the Oregon Accident Prevention Division (Oregon's OSHA program).

In Oregon, I was responsible for the enforcement program for over 50% of the state. In 1989 my second daughter (Sarah) was born and the following year I joined the State of Oregon State Fire Marshal as a Deputy and focused on Fire-Life Safety inspections and Hazardous Chemical storage. I was also part of the State-wide HAZ-MAT response team. This provided me with a great opportunity to practice in the areas of fire suppression systems, fire safety and plant safety for fire and explosion.

I moved back to Texas in 1992 the Texas Department of Criminal Justice (state prison system) was looking for an Industrial Hygiene Manager so joined the faculty of Sam Houston State University to teach and provide consulting services to the Texas prison system. A series of prisons located across the entire state and which was in the middle of a prison building boom. The system increased from 30 to 114 facilities and nearly 30,000 employees and over 160,000 offenders (inmates) in my time with them from 1992 till 1999. In addition, in order to be considered part of the university faculty I went back to graduate school at Texas A&M University this time to pursue a Ph.D. in Engineering.

In 1999, I accepted a full-time faculty appointment at the University of Texas Health Center at Tyler as Assistant Professor of Occupational Health Science and became the Director of the Environmental Science Graduate program, so I moved my family from Huntsville, Texas to Tyler. This graduate program was in cooperation with Stephen F Austin University and provided a Master's degree in Environmental/Occupational Science with our emphasis being on physicians wanting to be certified in Occupational Medicine. Then in 2007 I joined the faculty of the Civil & Environmental Engineering Department at the University of Texas at Tyler.

The best thing now is that both daughters have grown finished college and are both married to wonderful sons-in-law and my oldest (Adrienne) has made me a grandfather on September 12, 2013 Adelle Grace was born and she is the most wonderful thing in the world.

My areas of research interest are environmental risk assessment, air pollution systems and analysis of environmental contaminants, especially particulates pollution and the design of cleaning systems. I also have interest in human health exposure, exposure prevention/control and indoor air quality. I look forward to getting to know you this semester and take seriously my responsibility to help you learn as much as possible.

My contact information is for you to use as you have questions. My email is delivered to my phone and you may call or text me, but it must be before 10:00 p.m. (2200 hrs.) after that hour you'll face the wrath of the Mrs.

Position: Associate Professor, Chair Depts. of Civil Engineering and Construction Management
Email: tnalbone@uttyler.edu
Personal Phone: (903) 312-2029 cell
Office and Phone: 1005 RBS (CE/CM Office) (903) 565-5520

I look forward to getting to know you this summer and take seriously my responsibility to help you learn as much as possible about Water Resources Planning and Management.

Enclosure 4: Example of Required Memorandum Format for Homework Exercises:

MEMORANDUM

To: Dr. Torey Nalbone
Professor, University of Texas at Tyler

From: John Smith
Student, University of Texas at Tyler

RE: Problem #1 Evaluation of Recent Changes in the Worlds Water Picture

Date: October 7, 2020

I have completed the evaluation and review of the above referenced assignment and would like to share my findings with you. Please note that all related tables, graphics, and calculations can be found in the attached appendices for your reference

Part I Description of problem

Part II Applying knowledge to problem analysis

Part III Discussion and conclusion based on materials reviewed

Appendices (as needed)