The University of Texas at Tyler
College of Engineering

CENG 5350.060: Watershed Restoration

Course Syllabus (Summer 2025)

Date: May 8, 2025. This version supersedes all earlier versions.

Time & Venue	Class Times: On-Line
Instructor	Dr. J. Torey Nalbone Office: RBS 2003 Email: tnalbone@uttyler.edu Phone: (903) 565-5520 Office hours: Standing ZOOM Office Hours 0730 to 0930 Tuesday/Thursday or by appointment
Textbook and resources	**Stream and Watershed Restoration, Roni, P., and Beechie, T. Wiley-Blackwell Press, 2013, ISBN 978-1-4051-9958-8.** Paperback available companion website provided by publisher at: www.wiley.com/go/roni/streamrestoration
Course Website	See UT Tyler's Canvas website. Canvas will be used to manage the course material for the semester. There you will find announcements, homework assignments, solutions, handouts, lesson videos, and other material pertaining to the class. **Please check there Daily or at least regularly.**
Catalog Description	Welcome to CENG5350 (Special Topics – Watershed Restoration) A course for reviewing methods and approaches to restore watersheds to improve water quality with an increased focus on renovation, restoration, resource and recreation. Focused consideration for different approaches with an emphasis on Riverine processes and habitats.

Course Outcomes	In this course, you will learn: 1. Identifying restoration needs of specific watershed characteristics 2. Selecting appropriate restoration techniques 3. Prioritizing restoration projects 4. Developing, designing and implementing restoration 5. Monitoring and evaluation restoration 6. Synthesis of comprehensive plans ***Topics Covered*** **1. What is restoration and why is it necessary (Needs Assessment)** **2. Structural components of watersheds and riverine systems** **3. Riparian and fluvial processes** **4. Comon alteration, functions and failures** **5. Issues of stream restoration** **6. Innovation and acceptance of restoration practices** **7. Sediment and hydrology and the impact/influence**
Exams	There will be authored assignments for this course provided during a scheduled class duration. The submissions are **TENTATIVELY** scheduled for: • Written assignment 1: Week 3 • Written assignment 2: Week 5 • Final Exam: TBD - Oral presentation of project items 5-week courses Assignment dates may be moved up or pushed back depending on the progress within the courses. No make-up opportunities will be given except for medical or other similar hardships where advanced arrangements are made with the instructor; or in case of non-selective medical emergencies with appropriate physician's note or documentation. Other than the circumstances described above, failure to take the exam at the scheduled time will constitute a grade of zero on the exam.

General Exam Rules & Cheat Sheet	All exams are closed book. Topics to be tested will be announced in class and on Canvas one week prior to the exam. Based on need an equation sheet will be provided. The instructor will set questions from material taught in class. The meaning of "taught in class" includes verbal instructions or written notes on the white board and Canvas, briefing/ presentation during field trips, observation during field work/ experiments. They do not necessary appear in the textbook, distributed class notes, or homework. It is very important that you attend the class activities and take additional notes. To discourage students from focusing narrowly on only a few questions, **no** practice exam will be given. There are enough self-practice problems in the textbook at the end of each chapter.
Decision Project	The decision project will be used to identify the process an decision making as part of a team/group and individual managerial processes in engineering design. This will be a written team submission which shall include attribution and review.
Homework	Mostly reflective answer and exploring question at the ends of the chapters assigned for individual work.
	Grading Distribution- Problem discussions – 100 points Written Assignments – 200 points each Final Presentation – 500 points A – 899 to 1000 Points B – 800 to 898 Points C – 700 to 798 points F – less than 699 Points