

LAND 689 Special Topic in Design and Planning for Stormwater Management

Fall 2008

Instructor

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Office hours: to be determined

Course Time and Location

TR 3:55-5:10; Langford A302

Course Description

This is a broad, multi-disciplinary course that introduces design and planning principles and techniques for soil and water management in urban and suburban watersheds. Topics of the course include:

- hydrology of urban and suburban watersheds,
- stormwater management,
- urban soils,
- erosion and sediment control,
- bioretention, and
- soil bioengineering for slope and streambank stabilization.

Learning Objectives

After completing this course, students will possess:

- Knowledge of soil- and water-related environmental laws and regulations affecting land development
- Knowledge of stormwater quality and quantity issues
- Knowledge of soil erosion and sediment control
- Skill of calculating frequency and magnitude of storm runoff
- Skill of integrating stormwater mitigation techniques with planning strategies
- Ability to select effective best management practices for soil erosion and sediment control
- Ability to apply design and planning principles to land development with sound soil and water management

Required Textbook

Landscape Planning – Environmental Applications, 4th Edition. By W. M. Marsh (2005).

Suggested Reference

Design Hydrology and Sedimentology for Small Catchments. By C.T. Hann, B.J. Barfield and J.C. Hayes (1994).

Soil and Water Conservation: for Productivity and Environmental Protection, 4th Edition. by Frederick R. Troeh, J. Arthur Hobbs, Roy L. Donahue (2004).

Course Logistics

You are required to bring a scientific calculator to the class. You are also encouraged to bring your personal notebook PC. Course materials such as handouts, homework, in-class assignments and supplemental readings will be stored in the “class folder” of the College of Architecture or WebCT Vista. You must check on new releases constantly and download them for use.

Evaluation

Homework	20%
In-class assignments	10%
Term Paper	15%
Presentation (reading summary and term paper)	15%
Quizzes (or class participation)	10%
Exam (2)	30%

Grading Policy

A = 90%+, B = 80 to 89.9, C = 70 to 79.9, D = 60 to 69.9, F = below 60.

Homework – Homework assignments should be neatly finished. All calculations and units should be clearly written. The due date for each homework will be indicated when it is assigned. Late homework will be graded for half credit. Any homework not turned in two weeks after the due date may be turned in for evaluation, but will receive a grade of zero.

In-class assignments – Portions of the scheduled class meeting time will be used for in-class assignments. These assignments will be designed to illustrate concepts and problem solving techniques. In-class assignments may be worked individually or in groups and will be due at the end of the class when assigned. In-class assignment may not be made up. The lowest grade of in-class assignments will be dropped at the end of the semester.

Oral presentation and term paper – Each student is required to make a 15-minute PowerPoint presentation on one of the subjects covered in the course material or a related topic. A list of subject areas will be distributed at the beginning of the term. In advance of the presentation, the student will supply the instructor with a final outline of their presentation. At the latest, this must be supplied by the morning of the day before the presentation. Even earlier is preferable since that will give you more time to make suggested adjustments to the presentation.

The student is also required to write a comprehensive literature review on that topic. The due date of the paper will be determined after class discussion.

In addition, the student will be appointed as the lead discussant when a specific paper or reading is assigned to the class. The lead discussant should formally present the summary of the reading in 10 to 12 minutes. Class discussion will follow after the presentation.

Quizzes – Quiz is a means that ensures the student to read assigned materials. Depend upon the class participation throughout the semester, quizzes may be given occasionally. If the class

participation exceeds instructor's expectation, no quiz will be given. All quizzes will be closed-book, closed-notes and should require approximately 20-30 minutes of class time.

Exams – Two exams will be given. Exams will focus on application of technical concepts. Exams may be open-book, open-notes and will be limited to one class period.

Extenuating circumstances – If, at any time, extenuating circumstances interfere with your ability to meet class requirements, students are encouraged to contact Dr. Li prior to passage of a due date, giving of a quiz or exam, etc. The ability to make up missed work and the terms of any allowed make-up will be determined on a case-by-case basis.

Scholastic Honesty

Aggies do not lie, cheat or steal nor do they tolerate those who do.

The Aggie Code of Honor states that the students at Texas A&M University should value honesty and person integrity. Therefore, it is the responsibility of students and faculty members to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty.

ADA Policy

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for people with disabilities. Among other things, this legislation requires that all students be guaranteed a learning environment that provides reasonable accommodation for any disability they may have. If you believe you have a disability requiring an accommodation, please talk with the instructors if you feel comfortable with that or contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building, telephone 845-1637.