

**AGR 383: Soil and Water Conservation Engineering**  
**Course Syllabus – Spring 2008**

**Instructor:** Douglas M. Kingman, Ph.D.

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**Office Hours:** MW: 1:30 – 5:00PM

**Text:** none, materials will be available on the web/BB as necessary

**Lecture:** M and W – 11:noon – 12:20

**Location:** AMC – Ag Mechanization and Technology Center

**Scope:** AGR 383 Soil and Water Conservation Engineering. Principles of water supply, water distribution and water control for agricultural uses. Plane surveying, mapping, G.I.S. and G.P.S. are explored through laboratory experiences in design of soil and water conservation measures. (2-2), Credit 3.

**Objectives:** Students are expected to be capable of the following at the end of the semester:

1. Analyzing word problems that require algebraic solutions and manipulation of units.
2. Applying basic principles of soil and water management to reduce erosion.
3. Understanding proper use of basic soil and water conservation techniques.
4. Understanding principles of hydrology.
5. Understanding factors that affect erosion and the universal soil loss equation.
6. Determining amount of runoff given a watershed area and rainfall potential.
7. Applying basic surveying skills.
8. Determining topography of a given area from observations obtained during surveying activities.
9. Working with a group of classmates to identify, analyze, and determine a solution for a soil erosion or water problem.

**Course Assignment Breakdown and Grade Ranges:**

Assignment	Points	Percentage
Quizzes	120	16.67%
Homework	150	20.83%
Labs	50	6.94%
Exams I	100	13.89%
Exam II	100	13.89%
Exam III	100	13.89%
Final Exam	100	13.89%
<b>Total</b>	<b>720</b>	<b>100%</b>

Grade	Points	Ranges by Percentage
A	648 or more	90-100%
B	576 - 647	80-89%
C	504 - 575	70-79%
D	432 - 503	60-69%
F	Less than 432	Under 60%

**Group Project:** Each student will be expected to participate in a 4-member group project that will culminate in a written report and a 10-minute oral presentation. The written report will include at least these key components: 1) an executive summary, 2) cost of project, 3) description of problem, 4) description of solution, and 5) timetable for solution implementation. The oral presentation should include visuals that will be used to assist in the presentation. The goal of this activity is to identify, analyze, and determine a proposed solution for a soil erosion or water problem.

Week 1	16-Jan	1st Day - Introduction
Week 2	21-Jan	No Class Martin Luther King, Jr. Day
	23-Jan	Solving Problems
Week 3	28-Jan	Solving Problems
	30-Jan	Soil Erosion
Week 4	4-Feb	Soil Erosion
	6-Feb	Review Exam I
Week 5	11-Feb	<b>Exam I</b>
	13-Feb	Drainage
Week 6	18-Feb	Drainage
	20-Feb	Water Control Techniques
Week 7	25-Feb	Erosion Assessment and Prediction
	27-Feb	Water Impoundment Strategies
Week 8	3-Mar	Review Exam II
	5-Mar	<b>Exam II</b>
Week 9	10-Mar	Spring
	12-Mar	Break
Week 10	17-Mar	Measuring Area
	19-Mar	GPS
Week 11	24-Mar	GPS
	26-Mar	GPS/GIS
Week 12	31-Mar	GPS/GIS
	2-Apr	Wastewater Collection
Week 13	7-Apr	Recycling Wastewater from Rainfall
	9-Apr	Group Project Preparation
Week 14	14-Apr	Group Project Preparation
	16-Apr	Group Project Preparation
Week 15	21-Apr	Review Exam III
	23-Apr	<b>Exam III</b>
Week 16	28-Apr	Group Project Presentations
	30-Apr	Group Project Presentations
Week 17	5-May	Group Project Presentations
	7-May	Group Project Presentations
	05/10-	
Week 18	15/08	Finals

**Study Tips:** A comprehensive set of class notes are recommended. Review sheets will be distributed and a review session will be conducted before each major exam.

**Academic Dishonesty:** All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic exercises both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on and examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

**Classroom Rules of Conduct:** Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins and will not be permitted for use as calculators. Students are prohibited from using tobacco products in the classroom and laboratory. Inappropriate behavior will not be permitted in the classroom or laboratory and disruptive students may be reported to the Dean of Students for disciplinary action in accordance with university policy.

**Visitors in the Classroom:** Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.

**Americans with Disabilities Act:** It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request help with academically related problems stemming from individual disabilities from their instructors, school/department chair, or by contacting the Chair of the Committee for Continuing Assistance for Disabled Students and Director of the Counseling Center, Lee Drain Annex, or by calling (936) 294-1720.

If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Counseling Center.

**Religious Holidays:** Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other related activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the

religious hold day(s). This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence(s) will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.