

<b>Wk</b>	<b>Date(M)</b>	<b>Lecture (M &amp; W)</b>	<b>Lab (F)</b>	<b>Reading (see website)</b>
1	8/17	Introduction: Agriculture and Civilization	<i>(Meet in classroom)</i>	Diamond, 85-130; Hillel, 55-77
2	8/24	Geologic & Accelerated Erosion	<i>Soil sampling (field trip, Whitehall)</i>	Hudson, 19-33; Morgan, 1-10
3	8/31	Hydrology: Rainfall and Infiltration [No class M: Labor Day]	<i>Rainfall Energy and Erosivity (Rm. 1201)</i> [write up]	Morgan, 11-73
4	9/7	Soil Erodibility	<i>Rainfall simulation: Infiltration and Erodibility</i> (at Blockhouse) [write up]	Morgan, 11-73 (cont)
5	9/14	Erosion Agents and Processes	<i>Field Trip: Erosion and Sediment in Field</i>	Morgan 11-73 (cont)
6	9/21	Canopies and Cropping	<i>Rainfall simulation: Residue and Canopy</i> [write up]	Morgan, 175-199
7	9/28	Tillage and Residues	EXAM 1	Morgan, 200-211; handouts
8	10/5	Structural Practices	<i>Using RUSLE (Indoors)</i>	Morgan, 212-243
9	10/12	Erosion Models	<i>Using RUSLE, cont. (Indoors)</i> [write up]	RUSLE documentation
10	10/19	Sediment as a Pollutant	<i>Field Trip: Water Sampling and Turbidity</i>	Handouts
11	10/26	Sediment Transport and Deposition [No class F–Fall Break]	<i>Aggregation and Flocculation (Indoors)</i>	-----
12	11/2	Erosion on Disturbed Lands	<i>Field Trip: Erosion on Construction Sites</i>	Ga SWCC readings
13	11/9	Sediment Control on Disturbed Lands	<i>Erosion Control Planning (Indoors)</i> [write up]	Ga SWCC readings
----	11/16	Wind Erosion		Hudson, 266-280
14	11/23	<i>Thanksgiving</i>	None	
15	11/30	Topics in Soil Erosion	EXAM 2	-----
	12/7,8	Review; Student Presentations	<i>FINAL: Wed, Dec 17, 12:00</i>	----

READINGS: RPC Morgan, "Soil Erosion and Conservation", 3<sup>rd</sup> Ed.

**SOIL EROSION AND CONSERVATION**  
**CRSS 4580/6580**  
Fall 2015

Course Description: This is a senior/graduate level course focusing on soil erosion and sedimentation, with an emphasis on practical application in land management (agriculture, forestry, urban land management) and environmental (water) quality. It is assumed students have a basic background in soil science and hydrology as pre-requisites for the course (CRSS/FANR 3060 or equivalent).

Course Objectives: Overall, the course objective is to enable students to understand basic processes of soil erosion and sediment production on agricultural, forest, and urban lands, and to propose management options that reduce erosion and sediment loading to surface waters. Specifically, at the conclusion of the course students should be able to:

- 1) describe basic soil, landscape, and hydrologic factors that determine soil erosion levels, and how specific management practices influence erosion;
- 2) utilize mathematical models to predict erosion and runoff and use them to suggest soil management on a field scale;
- 3) explain processes leading to sediment generation and transport to surface waters, and the influence of sediment control practices (BMP's) on sediment loads;
- 4) discuss how farm/site planning strategies can be formulated to control in-field erosion and off-site impacts;
- 5) discuss and critique the history of man-induced soil erosion on earth, and our moral and/or practical (economic) imperative to control soil erosion.

Course Mechanics: Classes will be held M and W 1:25-2:15 in Rm. 3203 Plant Sci. Bldg; labs are scheduled F 1:25-3:20 in Rm. 1201. Attendance is mandatory; absences should be cleared with the course instructor. Reading materials will be passed out or posted on the class web site (soils.uga.edu). Labs will involve in-class exercises, computer model runs, and field trips/exercises. Grading will be based on lab exercises/reports done on lab activities, two hourly exams, and comprehensive final, as well as class participation. Graduate students (CRSS 6580) will be expected to write and present a term paper, as well as prepare superior reports and exam papers. Final grade assignment will be based on a 90/80/70 distribution, with course points assigned as follows:

Two hourly exams @100 pts each:	200	(40%)
Final exam (comprehensive):	100	(20%)
Lab exercises/reports:	150	(30%)
Class attendance/participation:	50	(10%)

*All academic work must meet the standards contained in "A Culture of Honesty". All students are responsible to inform themselves about those standards before performing any academic work.*

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Office hrs: 9-11 daily, others by appt.

*The course syllabus is a general plan for the course; deviations announced to the class by the instructors may be necessary. Students with disabilities or special needs can be accommodated by contacting the instructor.*