Class Schedule* for Soils 201 - Spring 2006 (updated 2/6)

*Relevant readings** from the course texts. As noted in the syllabus, you are welcome to use either text. The purpose of the readings is to help solidify your understanding of the topics – if they aren't helpful, explore additional sources!*

Week & Dates	Lecture Topic (T & Th am) (Meet in Johnson Hall Annex, C-105)	Soils Exploration Session (W/Th pm) (Meet in PBS1, 43)
1 Jan 10-12	T: - Introduction - What is Soil (& why should we care?) (R: Ch. 1 either book) **Writing Asst 1: Reflection Essay** *(due Thurs 1/12)* Th: - Soil Functions and Components; OM (R: Ch. 1 either book; and Elem Ch 11 or B&W Ch 12)	OBSERVING SOIL **R:** The *Student, the Fish, and Agassiz*; http://www.duke.edu/~trout/w20/scudder.html
2 1/17-19	PEDOLOGY T: - Soil Genesis (How soils form) (R: Elem Ch 2 thru p. 53; B&W Ch 2 thru p. 69) Th: (cont.)	OBSERVABLE PHYSICAL PROPERTIES -Parent Materials -Soil Structure -Soil Color
3 1/24-26	T: Soils and Geology in Washington State *Guest: Alan Busacca, CSS & Geology* Th: - Soil Morphology (What soils look like) (R: Elem Ch 2 pp. 54-73; B&W Ch 2 pp.69-end)	OBSERVABLE PHYSICAL PROPERTIES II -Soil Texture (Ch 1 & 4, parts)
4 1/31-2/2	T: - Soil Classification / Soil Orders (R: Ch.3 either book) SOIL PHYSICAL PROPERTIES Th: Soil Architecture, Aggregation, Density & Porosity (R: Ch 4: Elem thru p121, B&W13 thru p.159)	SOIL HORIZONS AND CLASSIFICATION (R: Ch 2 (end) and 3) ***Key Writing #2 due in one week*** *(in Expl Session packet), but okay to turn in by noon Fri. 2/10 – JSHN 231*
5 2/7-9	**T: EXAM 1** *(Thru texture & structure in Ch 4, incl. Exp Sess)* Th: Managing soil architecture (R: remainder of Ch. 4)	SOIL SURVEY EXERCISE (R: Elem pp.89-92; B&W pp. 859-863)
6 2/14-16	SOIL WATER T: Water Content and "Potential" (R: Elem Ch 5, pp 134-145; or B&W pp177-95) Th: Plant Available Water, Water Flow & Infiltration (R: Elem Ch 5, pp 146-end; or B&W pp.195-end)	MEASURING WATER CONTENT & BULK DENSITY (R: Chs. 5 & 4 respectively)
7 2/21-23	T: (cont.); Video - *Water Movement in Soil* Th: Soil-Plant-Atmosphere Continuum / Irrigation (R: Ch. 6 either book)	INSTRUMENTS FOR MEASURING SOIL WATER (R: Ch 5) ***Key Writing #3 due in one week (see ExS packet)***

Next page coming soon.

Upcoming important dates for you calendar include:

Exam 2 Thurs 3/23;

Field Trip 1 moved to Thursday 4/13, 1-4pm

Field Trip 2 Friday 4/21

**(exact schedule subject to change pending progress, unexpected opportunities, etc.)*

****R=** Relevant Reading(s). **Elem** = Elem. of Nature and Properties of Soil, 2nd ed. Simplified version of B&W; **B&W**= Brady and Wyle, 13th ed (2002); **SoilBiol**= Relevant Readings in *Soil Biology Primer*, SWCS (2000); **Asst** = Assignment to be turned in (may occasionally be due at the end of the class period)

8 2/28-3/2	SOIL CHEMICAL PROPERTIES T: – Silicate Clay Structure & Charge (R: Elem Ch. 8 thru p 249; or B&W Ch 8 thru p.339) Th: – Non-silicate Colloids (Oxide & OM); Sorption (R: Elem Ch 8, pp. 245-251, 259-262; or B&W pp.329-341, 354-357)	MEASURING & INTERPRETING SOIL PH
9 Mar 7-9	T: - Septic Systems *(Guest: Dr. Craig Cogger, WSU-Puyallup)* Th: - Soil Acidity, Alkalinity, and Salt-affected Soils (R: Elem Ch. 9; or B&W Ch 9 & 10)	CLAY MINERALOGY / ION EXCHANGE/CEC&AEC (R: Elem Ch 8, pp251-259; or B&WCh8 pp.336-353)
3/13-17	Spring Break ☺	Spring break ☺
10 3/21-23	SOIL BIOLOGY Th: Introduction to Soil Biology (video) R: Elem Ch 10 or B&W Ch 11 -skim for big picture) **Th: EXAM 2** *(thru 3/9)*	SOIL ORGANISMS I - Specific Organisms (Macro- and Meso-) (R: SoilBiol pp. 30-47; *and* Elem Ch 10, pp. 324-332 or BW pp. 459-472)
11 3/28-30	T: - Ecology and Functions of Soil Organisms (R: Elem Ch 10 or B&W Ch 11) Th: (cont.)	SOIL ORGANISMS II COMPOST
12 Apr 4-6	T: Techniques for Describing Microbial Communities *(Guest: Dr. Ann Kennedy, USDA-ARS)* SOIL FERTILITY T: -Plant Nutrients –Principles of Soil Fertility (R: Elem Ch. 14; or B&W Ch 16)	SOIL ORGANISMS III - Soil Organisms: Plating Microbes (R: SoilBiol pp. 18-29, and related text sec.)
13 4/11-13	T: Soil Fertility Management *Guest: Rich Koenig, WSU Extension Soil Fertility* (R: Elem Ch.14; or B&W Ch. 16) Th: Plant Nutrients – Examples for specific nutrients (R:Elem Ch 12 & 13; or B&W Ch. 13,14,15)	**FIELD TRIP 1** (Cunningham Agro. Farm) – **THURS 4/13 (1:10-5PM)** ***Key Writing #4 (Research) due 4/13*** *(No Exploratory Session W, Th)*
14 4/18-20	T: (cont.) SOIL EROSION Th: Video: Surviving the Dustbowl	**FIELD TRIP 2** (Compost Facility, Organic Teaching Farm)– **FRIDAY 4/21(1:10-5PM)** *(No regular Exploratory Session W, Th)*
15 4/25-27	T: Managing to Prevent Erosion (R: Elem Ch.15; or B&W Ch 17) Th: TBA	(FIELD TRIP RAIN DATE) – FRI 4/28, 1:10-5PM
Finals Wk	**COMPREHENSIVE Final Exam: Mon May 1, 10:10-12:10, in regular classroom**	

T: Soil Aeration and Temperature
(R: Ch. 7 either book)
Septic Systems -*C.Cogger, WSU-Puyallup*
*(*R: Properly Managing Your Septic Tank System
http://cru84.cahe.wsu.edu/cgi-bin/pubs/EB1671.html)