

SOIL GENESIS 4134 - Spring 2007

<u>Date</u>	<u>Instructor</u>	<u>Topic</u>	<u>Reading/Handout</u>
1/17	Daniels	Introduction, review syllabus	21-27 (Review as necessary)
1/19	Daniels	Basic concepts of soils and pedons	1,2,3,20
1/22	Daniels	Soil genesis and soil forming processes	4, Simonson Process Paper & Table
1/24	Daniels	Mineral weathering basics	5, Clayton Feldspar Weathering Paper
1/26	Daniels	Mineral weathering and the soil solution	Weathering Handouts
1/29	Orndorff	Sulfidicization/Sulfuricization	10, Term Paper Assignment
1/31	Orndorff	Acid Sulfate weathering	Acid-S Handout
2/2	Daniels	Weathering Indices and Products	Term Paper Assignment
2/5	Daniels	Organic matter accumulation	Litter Layer Chapter
2/7	Daniels	Organic matter turnover and nutrient cycling	7
2/9	Daniels	Eluviation/illuviation/lessivage	6,13, Scrivner et al. paper
2/12	Daniels	Soil structure formation	8
2/14	Daniels	Podzolization/Erosion and Alluviation	14,9
2/16	Merrill	Introduction to library research	
2/19	TEST #1	Through 2/14 lecture materials	
2/21	Daniels	Gleization and mottling	16
2/23	Daniels	Hydric soil genesis	Wetland soils handout
2/26	Baker	Saline/sodic/calclie soil processes	11,12
2/28	Baker	Latosolization and lateritization	15
3/2	Merrill	Library research follow-up	
3/12	Daniels	Colluvial processes	Genthner Colluvium Handout
3/14	Daniels	Pedoturbation/shrink-swell	Shrink/Swell Handout
3/16	Daniels	Pans and indurated layers	22,23, Bryant Fragipan Chapter
3/19	Daniels	State factor analysis	38
3/21	Daniels	Soil parent material-basics	39
3/23	Daniels	Virginia parent materials	Va PM handout & PowerPoints
3/26	Daniels	Soil/PM/Landscape Relations	
3/28	Daniels	Soils and climate	41
3/30	Daniels	Soil genesis on young surfaces	40, Haering et al. Paper
4/2	TEST #2	Through 3/28 lecture materials	
4/4	Kostyanovskiy	Soils climosequences of Russia	41, Handouts
4/6	Daniels	Soil chronosequences	Harris et al. & Howard et al. papers
4/9	Daniels	Soils and organisms	42
4/11	Daniels	Influence of organisms and man	43, Forest/Pasture Paper
4/13	Daniels	Soils and topographic influences	44
4/16	Daniels	Basics of soil classification	17, Cline Class. Paper
4/18	Daniels	Origins of soil classification	18, Simonson Lessons Paper
4/20	Daniels	Evolution of USA Soil Taxonomy	19, Whiteside Changes Paper
		<u>Term Paper Due</u>	
4/23	Daniels	Recent developments in Soil Taxonomy	21,22,23,25,26 (review)
4/25	Daniels	Distribution and genesis of soil orders	27, World Soils Handout
4/27	Daniels	Soil orders - Pedogenic basis	28,29,30
4/30	Daniels	Soil orders - Pedogenic basis	31,32,33
5/2	Daniels	Soil orders - Pedogenic basis	34,35,36, 37, Handouts
5/5 (Sat.)	Final Exam	1:05 pm	