

Soils, Civilizations, and Societies: Soils 497H
Penn State University - Spring 2010
 Variable credits (3 to 6)

Course Outline

Date	Topic	Readings*
UNIT 1	What about soils? Soils and civilizations: intricate interconnections	
Jan. 12; 14	Intro, Syllabus, Expectations Soil...the beginning Soil and water: the essence of life	OE – ch. 1-2; selected readings
19; 21	Soils, agriculture, environment Clay, climate, and the Origin of Life Water and civilization	OE – ch. 3-4 TC – ch. 1
26; 28	Cycles and Balances; Soil, plant, atmosphere continuum	OE – ch. 5-7
UNIT 2		
Similar strata, diverse soils: Central Pennsylvania soils and landscapes.		
Feb. 2; 4	Ridges, Valleys, and Plateaus: Soils and landscapes of Central Pennsylvania	GP – ch. 1, 2, and 5 SGNV – ch. 4 <i>Handouts</i> <i>Field Trip</i>
UNIT 3		
Lessons of the past: great rivers...hostile land Transitions and technologies		
Feb. 9; 11	Beginnings and transformations Ecological domains The Neolithic revolution	OE – ch. 8-10 NHB – selected readings SC – selected readings TC – selected readings
16; 18	To gather, to grow – nomads and settlers How the rivers flow From Eden to barren land – the road to desolation	OE – ch. 11-12 CM – selected readings GGS – selected readings D – selected readings
23; 25	Arid lands, wetlands, and aquifers; human ingenuity abounds The promise and perils of ancient technologies	OE – ch. 13-16 D – selected readings GGS – selected readings
Special Interest Paper proposal due		

Course Outline (cont.)

Date	Topic	Readings*
Mar. 2	Feeding the hungry land	OE – ch. 17 CM – selected readings
Mar. 4	MID-TERM “EXAM”	
UNIT 4	What about soils? Lessons from the “New world” Problems of the present – gifts from the past	
Mar. 16; 18	Soil, oil, and constant conflict Diminishing returns: Soil loose and soil lost	GGS – selected readings OE – ch. 18-20 D – selected readings
23; 25	Deforestation, desertification: resources demise Research Paper assignment due	OE – ch. 21-28
UNIT 5	Challenges today; From sea to sea; from mountain to valley	
Mar. 30; Apr. 1	CASE STUDY I: TBA or Ground Water Conflict – The Jordan River Basin	<i>Handout</i>
6; 8	CASE STUDY II: TBA or Surface water conflict – The Nile River Basin	<i>Handout</i>
13; 15	CASE STUDY III: TBA or Surface water conflict – The Tigris/Euphrates River Basin	<i>Handout</i>
20; 22	Wrap-up and Discussion	
Apr. 27; 29	Review and final exam	

May 16- June 6	STUDY TOUR: Jordan
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**Supplemental readings, as handouts or on-line, will be made available for study throughout the semester. OE, Out of the Earth; CM, Crops and Man; GGS, Guns, Germs, and Steel; TC, Topsoil and Civilization; SC, Soils and Civilizations; NHB, Natural History of the Bible; D, Dirt – the Erosion of Civilization; GP, Geography of Pennsylvania; SGNV, Soils and Geology of Nittany Valley*