

Geography 347: Water as a Resource

Lecture Schedule - Fall, 2012

Instructor: Dr. Allan James; Room 206, Callcott Building. 777-6117. Ajames@sc.edu
 Lectures: T-Th 12:30 to 1:45 in Room 202, Callcott Building

Week	Day	Topic	Readings
Section I. Physical Hydrology			
Aug.23			
1	Th	Introduction - Water: an essential resource	Ch.1
2	Tu	History of Hydrology; Physical Properties of Water	Ch.2
	Th	Global Hydrologic Change; Evaporation and Global Fresh Water	Ch.3&4
3	Sept.4 Tu	Infiltration and Surface Runoff	Ch.5
	Th	Concentrated Flow in Channels: discharge, hydrographs, fluvial geomorphology	Ch.6
4	Tu	Lakes, Reservoirs & Wetlands	Ch.7
		Ground-Water Hydrology: aquifers, flows,	Ch.8
	Th	Groundwater (continued): drawdowns & compaction; yields; management; major aquifers	-----
Section II. Water Quality and Treatment			
5	Tu	Principles of Water Quality: concepts; measures of water quality; dissolved & suspended solids; DO & nutrients; pathogens	Ch.9
	Th	Non-Point Source Pollution; soil erosion; sediment	Ch.10
6	Tu	NPS pollution (cont.): sediment budgets & waves; Acidification	Ch.10
	Th	Ground-Water Quality	Ch.11
7	Oct.2, Tu	Water Treatment, Protection, & Restoration	Ch.12
	Th	Water-Quality Characteristics & Trends (<i>if time</i>)	Ch.13
Section III. Water-Related Hazards			
8	Tu	Midterm exam , Oct. 9	-----
	Th	Flood Vulnerability	scan Ch.14
9	Tu	Flood Hazards Management	scan Ch.15 & 16
	Th	Fall Break , no classes	-----

Geography 347: Water as a Resource
Lecture Schedule - Fall, 2012

Week	Day	Topic	Readings
Section IV. Water Use; Supply & Demand			
10	Tu	Water Use; types, patterns & trends; Agricultural; Thermoelectric cooling and industry	Ch.17
	Th	Water use (cont.): municipal & public supplies; hydropower; inland navigation; Environmental maintenance	-----
11	Tu	Water Economics: concepts, increasing supplies	Ch.18
Nov.1,	Th	Water Economics (cont.): water demand management; privatization	-----
12	Tu	Election Day , no classes	-----
	Th	Sustainability; Global Water Scarcity; Demography & Food Security: sustainability; demography and water use	Ch.19
Section V. Judicial, Legislative, and Administrative Controls			
13	Tu	Water Rights Law: Types of laws and institutions	Ch.20
	Th	Water Law (cont.): allocation rights: reserved rights; international rights	-----
14	Tu	Guest Lecture or film: TBA	-----
	Th	Thanksgiving Break , Nov. 22	-----
15	Tu	Environmental Policy & Legislation: Federal jurisdiction; history of natural resources policy, intergovt. & interagency structures	Ch.21
	Th	Env. legislation (cont.): Clean Water & Safe Drinking Water Acts -----	-----
16	Dec.4, Tu	<i>Integrated Water Resources Management in the 20th Century</i>	Ch.22; handout
	Th	Course wrap-up and review for final exam	-----

Final Exam: Tuesday, December 11 at 4:00 pm in Room 202 Callcott Building