

Class Schedule for Water Resources Engineering II (CGN 4933)

Lecture Number	Topic	Reading Pages	Homework Number
1	Hydrological Cycle: significance	None	
Introduction to Hydrology of the Vadose Zone			
2	The Vadose zone in the Hydrological cycle		
3, 4 and 5	Soil Physical Properties, Capillary Pressure, Water Retention in Soils	Instructor will distribute reading material	
6	Static Water Content Distribution above Water Table		1
7, 8 and 9	Introduction to Hydrological Processes in Vadose Zone: Infiltration, Drainage, Evaporation, Root Water Uptake, and Aquifer Recharge.		2, 3
10	Test 1		
Ground Water Engineering			
11 and 12	Aquifer Storage in Unconfined and Confined Aquifers	15-40	
13, 14, 15, and 16	Darcy's Law, Heterogenous and Anisotropic Aquifers, Various Form of Ground-Water Flow Equation	65-100	4
17, 18, 19 20, and 21	Steady Ground Water Hydraulics: Radial Flow, Flow in Leaky Aquifers, One Dimensional Flow with Accretion	116-156	5, 6
22	Test 2		
23, 24, 25 ,26 and 27	Unsteady Ground Water Hydraulics: Theis Solution (radial flow), Drawdown in a Pumping Field, and Stream Aquifer Interaction (base flow)	177-194 and 214-219	6, 7
28, and 29	(Time permitting) Aquifer Tests	194-209	
Final Exam			