Fall 9-1-2005

FOR 385.01: Watershed Hydrology

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SYLLABUS

FALL 2005 FOR 385 POTTS

WATERSHED HYDROLOGY

MEETING TIME: MWF 8-9 AM; Forestry 106

WEEK	DISCUSSION TOPIC	READING
08 / 29	Introduction - Water in the West, NEPA, CWA and CWE's	Chapter 1
09 / 07	The Watershed / Statistical Methods **No class 09/05**	Handouts / Chapter 18
09 / 12	Precipitation and Interception	Chapter 2
09 / 19	Evapotranspiration and Soil Water Storage	Chapter 3
09 / 26	Infiltration, Runoff & Streamflow	Chapters 4, 17, 18
10 / 03	Groundwater and Wetlands **EXAM** (10/07)	Chapters 5, 14
10 / 10	Vegetation Management and Water Yield	Chapter 6
10 / 17	Cumulative Watershed Effects	Handouts
10 / 24	Surface erosion and Control	Chapter 7
10 / 31	Gullies and Mass Movement	Chapter 8
11 / 07	**EXAM** (11/07) Sediment Yield & Channel Processes **No class 11/11**	Chapter 9
11 / 14	Channel Classification and Channel Stability	Chapter 10, Handouts
11 / 21	Catch-up **Thanksgiving Holiday**	
11 / 28	Water Quality, BMP's, SMZ Law	Chapter 11, Handouts
12 / 05	Riparian and Water Quality Management	Chapters 12, 13

TEXTBOOK: Brooks, et al. 2003. Hydrology and the Management of Watersheds 3d Edition. Iowa State University Press. 502 pp.

GRADING:

Quizzes and Homework	10% of final grade
First Examination	30% of final grade
Second Examination	30% of final grade
Final Examination, Dec. 14, 8 - 10AM	30% of final grade

I will use the + / - grading option

COURSE OBJECTIVES:

1. Acquire a fundamental understanding of the hydrologic cycle; understand how climate, soils, vegetation and land-use affect the amount, timing and quality of water flow from a watershed.

2. Develop the ability to quantitatively determine or estimate the magnitude of hydrologic entities with emphasis on small watersheds. Become familiar with analytical procedures for evaluating precipitation, evapotranspiration, infiltration, and streamflow.

3 Understand how hydrologic information can be used in land management, including forest resource management; determine where water resource management objectives are compatible and where they conflict with other natural resource management objectives.

4. Understand the role of watershed management in dealing with cumulative watershed effects and the relationship between watershed management and multiple use in planning and implementing natural resource programs.

5. Become familiar with State and Federal laws and requirements and current issues in watershed management and water resources.