CE/WR 524
MODELING WATERSHED HYDROLOGY
Course Outline -- Spring 2005

Instructors:	Jose D. Salas (CE) and Freeman Smith (ER)
Semester:	Spring 2005
Credits:	4
Class:	12:10-1:50 TR
Classrooms:	B 101 NESB and C143

Schedule of Lectures

18 Jan	Introduction, The Watershed System
20	The Modeling Process. Conceptualization and Abstraction
25	Problem Definition. Objective Formulation
27	Model Definition and Model Formulation
01 Feb	Calibration and Parameterization
03	Parameter Optimization
08	Model Evaluation and Sensitivity Analysis
10	Modeling the Watershed System
15	Modeling the Atmospheric System
17	Modeling the Hydrologic System
22	Modeling Watershed Hydrology at the Seasonal Time Scale (SEAMOD)
24	Stanford Watershed Model
01 Mar	Stanford Watershed Model
03	HSPF and BASINS
08	* Hydrology Days *
10	CASC2D
14-20	Spring Break
22	KINEROS
24	TOPMODEL
29	USGS-PRMS Model
31	USGS-PRMS Model Applications
05 Apr	National Weather Service Model
07	National Weather Service Model Applications
12	Exam/Take-Home
14	Hydrologic Engineering Center HMS, HEC-1 Model
19	HEC - Models Applications/
21	SWRRB Model Applications
26	Integrating Deterministic and Stochastic Models
28	Student Presentations
03 May	Student Presentations
05	Student Presentations

*	Class attend Hydrology Days sessions

Text: Recommended/not required

Singh, V.P. Computer Modeling of Watershed Hydrology, Water Resources Publications, 2003 (on Reserve)

Singh, V.P. and Frevert D.K., Mathematical Models of Small Watershed Hydrology and Applications, Water Resources Publications, 2003 (on Reserve)

Singh, V.P. and Frevert D.K., Mathematical Models of Large Watershed Hydrology, Water Resources Publications, 2003 (on Reserve)

Grading:

Assignments	25%
Exam	30%
Term Project	45%