

BIOLOGICAL ENGINEERING 7304

SPRING SEMESTER 2013

4:30 - 7:30 P.M. Tuesday

COURSE DESCRIPTION: BE 7304 Advanced Natural Resource Engineering
hydrology, flow theory, evapotranspiration, transport of
pollutants, drainage, irrigation, erosion.

OBJECTIVE: To equip the student to analyze and design natural
resource control systems.

INSTRUCTOR: Dr. Richard L. Bengtson, Room 177, R. K. Noran
Building, Phone: 225-578-1056,
e-mail: bengtson@lsu.edu

REFERENCE: MICROCLIMATE, THE BIOLOGICAL ENVIRONMENT, AND
RESEARCH, Diane L. Diaz, and Basil B. Verita.

GRADING OUTLINE		
Homework and Quizzes		25%
Mid-Term Examination		25%
Research Paper		25%
Final Examination		25%

RESEARCH PAPER: Subject to be announced.

Homework will be due one (1) week after it is assigned.

Quizzes and tests cannot be made up.

ACADEMIC MISCONDUCT

"Academic Misconduct, as defined in the Code of Student Conduct, will not be an adequate defense in such cases. Go to <http://app1003.lsu.edu/lsu/judicialaffairs.nsf/index> for a copy of the current Code of Student Conduct."

BIOLOGICAL ENGINEERING 7304

CREDIT HOURS: 3 (3 HOURS LECTURE),
 SPRING SEMESTER 2013
 ROOM 115 E.B. DORAN BUILDING
 4:30 - 7:30 P.M. Tuesday

<u>CLASS</u>	<u>DATE</u>	<u>TOPIC</u>
1	JAN 15	Introduction to soil erosion
2	JAN 22	Sedimentation Predicting rainfall erosion
3	JAN 29	Universal Soil Loss Equation
4	FEB 5	Introduction to terraces Design of terraces
5	FEB 12	sediment transport
6	FEB 19	sediment transport
7	FEB 26	The radiation balance Soil heat flux and temperature
8	MAR 5	MID-TERM EXAMINATION
9	MAR 12	sensible heat transfer
10	MAR 19	Atmospheric humidity Evaporation, Evapotranspiration
11	MAR 26	Water balance method Mass transport method
12	APR 2	SPRING BREAK
13	APR 9	Energy balance method Climatological methods
14	APR 16	Van Bavel method
15	APR 23	Resistance methods
16	APR 30	Class presentations
17	MAY 7	FINAL EXAMINATION THURSDAY 4:30 to 6:30 P.M.

Read one week ahead. Homework will be due one (1) week after date assigned.