

Syllabus - FORS 4140, Introduction to Wetlands; Spring, 2006

This class provides an introduction to all aspects of wetlands including occurrence, morphology, hydrology, soils, ecology, and regulation. This class is appropriate for students planning careers in natural resource management while working in either consulting, industry, government, or a non-profit organization. This class is not a training class for wetland delineation or wetland functions assessment, but it provides students with the basis for conducting such assessments. There are no specific prerequisites for this class, but it is expected that students are familiar with basic principles of chemistry, physics, and biology.

Instructor: C. Rhett Jackson, Forestry Bldg 4, room 114, 542-1772,
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Lectures: Mondays and Wednesdays, 11:15-12:05, Room 517, Building 4, Forest Resources

Lab: Wednesdays, 1:25-4:25, variable locations

Text: *Wetlands*. William J. Mitsch and James G. Gosselink. John Wiley, NY. 2000.

Lecture/Reading Schedule

Duration (weeks)	Topic	Book Chapters
1/2	Introduction - What is a wetland? Why do wetlands deserve a course? Overview of wetland regulation and history	1,2
1	Wetland formation and occurrence (hydrology and geomorphology of wetlands)	3,4
1/2	Wetland types	
1	Wetland hydrology	5
1	Hydric soils (Larry West)	
1	Wetland biogeochemistry (Larry West and Rhett Jackson)	6
4	Wetland Ecology ecotones, sources of vegetation data (Rhett Jackson) vegetation and waterfowl of floodplain wetlands (Karl Miller) vegetation and waterfowl of Coastal Plain wetlands (Sarah Schweitzer) macroinvertebrates and food webs (Darold Batzer) vertebrates birds (Bob Cooper) herpetofauna (John Maerz) mammals (Steve Castleberry) Water level management for waterfowl (Karl Miller)	7,8
1/2	Wetland interactions with adjacent upland/riparian areas	16
1/2	Impacts of land use change	17
1/2	Artificial wetlands for water quality treatment	20
1	Wetland regulation - wetland usage and loss, wetland laws and regulation wetland classification schemes wetland functional assessment	18
1	Wetland mitigation	19

The above totals 12.5 weeks of lectures. The remainder of the semester will be spent on student presentations of papers or case studies

Laboratories:

Most lab periods will be spent in the field looking at wetlands or conducting wetland surveys. Students should supply their own waders and be prepared for adverse weather conditions during laboratories. After the

first few weeks, students will be assigned to groups, and each group will be assigned a particular wetland. For the remainder of the course, each group will conduct field surveys and GIS analysis to characterize their wetland. Each group will prepare a report describing their wetland in terms of geomorphology, hydrology, biology, and ecosystem function.

Week	Date	Lab Activity
1.	Jan 11	Look at Clarke County wetlands with NWIS (whole class)
2.	Jan 18	Walk around Whitehall wetlands (whole class)
3.	Jan 25	Off. No lab this week. (I have to go to Tifton!)
4.	Feb 1	Walk around Sandy Creek wetlands (whole class)
5.	Feb 8	Classify soils in and around wetlands (whole class)
6.	Feb 15	Install piezometers or water level recorders (groups)
7.	Feb 22	Map soils around wetlands with GPS (groups)
8.	March 1	Create maps of wetlands in GIS (groups)
9.	March 8	Macroinvertebrate sampling (groups)
10.	March 22	Conduct herp surveys (groups)
11.	March 29	Map vegetative communities (groups)
12.	April 5	Survey birds (groups)
13.	April 12	Develop vegetation taxa list (groups)

Student Products:

Each group will prepare a comprehensive report describing their wetland. In addition, students may have to prepare several laboratory write-ups over the course of the semester.

Each student will be required to write a review paper on some aspect of wetlands or wetland regulation. The review paper should be 8 to 15 pages in length and cite material from at least 10 sources, at least 6 of which must be journal articles. First drafts of papers will be due in the 8th week of class, and the instructor will review the papers and provide comments for improving the papers. Final versions of the paper will be due in the 12th week of class, and students will have to present their papers to the class.

There will be no mid-term examination, but there will be a comprehensive final exam.

There will be a reading assignment from the text associated with each lecture topic, and students will turn in a brief set of reading notes associated with each reading assignment.

Grading:

Participation	5%
Reading notes	10%
Wetland description and lab writeups	35%
Paper, presentation	30%
Final	20%

ACADEMIC HONESTY

All academic work must meet the standards contained in the University's academic honesty policy (see "A Culture of Honesty"; www.uga.edu/ovpi). All students are responsible for informing themselves about those standards before performing any academic work. The penalties for academic dishonesty are severe (see "Sanctions for Dishonesty"; www.uga.edu/ovpi), and ignorance is not an acceptable defense.