

ESR 424, ESR 524
Wetland Ecology and Regulations
Spring 2008

Class Time: M, W 2:00-3:50pm
Room: 204 Clay Building

Instructor: Joe Maser, Ph.D.
Office: 218 Science Building 2
Office Hours: M, T, Th 9:00am to 10:00am, and by appointment
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Course Objective: The objective of this course is to expose the students to the science of wetlands, as well as man's intrusion (protection and development) into wetland systems.

Course Description: This course will introduce and discuss the definition of a wetland; characteristics of wetland systems; the principles of wetland ecology; the functions of wetlands; and regulations and permitting process regarding development near and within wetlands. This course will include a series of lectures, one field trip and student presentations and discussions.

Grading: Grades will be based on the two examinations and a term paper in the form of a research proposal (and a presentation for graduate students). There will be one in-class exam and one take home exam. Each student will be required to prepare research proposal (approximately 10 pages in length). The subject of the proposal is the student's choice, as agreed to by the instructor. In addition to the written proposal, graduate students will be required to present their proposal within a 15-minute time limit, to be followed by a 5 minute discussion. The required assignments and examinations are as follows:

In-class exam	100 points
Take home exam	100 points
Paper (for undergraduate students)	200 points
Paper and Presentation (100 points each) Grad Students	200 points
Total	400 points

Text and Readings:

Required text: Mitsch, W.J. and J.G. Gosselink. 2007. *Wetlands*, 4rd Edition.
John Wiley & Sons, Hoboken, NJ, 582 pp.

Supplemental readings: When appropriate, readings will be listed for each topic.

Course Web Site: Course announcements, lecture notes and additional reading assignments will be posted on the web at <http://web.pdx.edu/~maserj/ESR424-524/ESR424-524.htm>

Course Outline

<u>Date</u>	<u>Lecture</u>	<u>Chapters</u>
3/31	Introduction Definition of a Wetland Types of Wetlands	2, 3 (56-74)
4/2, 4/7, 4/9	Characteristics of a Wetland Hydrology Soils Organisms Delineation Methods	4 5 (163-177) 6 14 (477-481)
4/14, 4/16 4/21	Ecological Principles of Wetlands Nutrient Cycles Ecosystem Development Wetland Communities	5 (177-206) 7 8
4/23	Wetland Functions and Values	11
4/28	Field Trip (approximately 3 hours, including transportation)	
4/30	In-class Exam	
5/5	Man's Interaction with Wetlands Historic and Present Attitudes and Use	9 (287-305) 1 (3-18)
5/7, 5/12	Wetland Regulations Federal/State Local	14
5/14	Permitting	
5/19, 5/21	Mitigation Avoidance Enhancement Creation Restoration Monitoring Wetland Management Treatment Wetlands	12 9 (305-312) 13
5/28	Climate Change	10
5/28	Take Home Exam Due	
6/2, 6/4 6/11 (12:30pm) 6/4	In-Class Presentations of Papers Papers Due (All Students)	

The topics and schedule of discussions listed in this syllabus may change.