

CONSTRUCTED WETLANDS FOR WATER QUALITY CONTROL

Course Outline

Instructor: Paul McGinley TNR 224F (Inside the “Groundwater Center”) 346-4501 / pmcginle@uwsp.edu

Meetings: 4 – 5 PM Tuesday & Thursday in TNR 252

The timetable course description is “design and construction of wetland areas for water quality control.” Our focus in this course will be to:

- 1) Review examples of wetlands used for water quality control
- 2) Examine water quality functions of wetlands and their potential for water quality improvement
- 3) Apply different methods of quantifying wetland treatment function
- 4) Critically evaluate the likely treatment of a specific compound in a wetland

We plan to examine different wetland treatment systems within a discussion of the physical, chemical and biological processes that occur within treatment wetlands. The course will meet twice weekly for lecture, discussion and problem-solving. Grading is based on the in-class problems/assignments (15%), short quizzes on the 2nd and 4th Thursdays (10%), an individual project (40%) and a final quiz (35%).

Week	Topic
1	<i>Introduction to Treatment Wetlands Terminology & Examples Hydrology & Hydraulics</i>
2	<i>Treatment Wetlands in the Watershed Hydrology/Hydraulics Continued</i>
3	<i>Design & Construction Physical Removal of Contaminants - Suspended Solids</i>
4	<i>Introduction to Chemical / Biological Removal Oxygen Demanding Substances / Organic Compounds</i>
5	<i>Biological Pathogens Nitrogen</i>
6	<i>Nitrogen & Phosphorus</i>
7	<i>Phosphorus & Presentations</i>
8	<i>Presentations & Final Quiz (Thursday March 12)</i>