

**Range Science/Natural Resources Management/Soil Science 454/654**  
**Wetland Resources Management**  
**Fall Semester**  
**3 Credits**  
**Hultz Hall 209; 1:00-1:50 W, 1:00-5:00 F**

- Instructor:** Dr. Shawn DeKeyser, Morrill Hall 205B, 231-8180, edward.dekeyser@ndsu.edu
- Textbook:** Wetlands (3<sup>rd</sup> Edition) by William J. Mitsch and James G. Gosselink (not required)
- Readings:** Wetland Soils: Genesis, Hydrology, Landscapes, and Classification by J.L. Richardson and M.J. Vepraskas (editors)
- Catalog Description:** Principles of wetland systems, wetland management, wetland functions, wetland delineation, wetland assessment, and wetland improvement.
- Goals of the Course:** Conduct a detailed survey of wetland systems and management by identifying their values to society and the role human and natural impacts play in wetland functioning within an ecosystem. Examine wetland processes and stressors and their effects on plants, wildlife, soils, and hydrology. Survey, inventory, delineation, and analysis of a wetland(s) system, including possible impact assessment will be conducted.

**Assessment:**

<b>Undergraduate 454</b>	
1. Exam I	100 pts
2. Exam II	100 pts
3. Exam III	100 pts
4. Field Assessment Report	100 pts
5. Attendance	25 pts
6. <u>Small Classroom Assignments</u>	<u>25 pts</u>
<b>TOTAL:</b>	<b>450 pts</b>
<b>Graduate 654</b>	
1. Exam I	100 pts
2. Exam II	100 pts
3. Exam III	100 pts
4. Field Assessment Report	100 pts
5. Research Paper	100 pts
6. Attendance	25 pts
7. <u>Small Classroom Assignments</u>	<u>25 pts</u>
<b>TOTAL:</b>	<b>550 pts</b>

Final grades will be assigned based upon:

<b>Undergraduate</b>	<b>Graduate</b>
A = 90 to 100% / 405 – 450 pts	A = 90 to 100% / 495 – 550 pts
B = 80 to 89% / 360 – 404 pts	B = 80 to 89% / 440 – 494 pts
C = 70 to 79% / 315 – 359 pts	C = 70 to 79% / 385 – 439 pts
D = 60 to 69% / 270 – 314 pts	D = 60 to 69% / 330 – 384 pts
F = <60% / < 269 pts	F = <60% / < 329 pts

**Makeup or extra credit work will not be available.**

The field assessment report will entail a technical write up on the delineation of a wetland utilizing hydrology, hydric vegetation, and hydric soils. Also, a statement on the wetland's biologic, chemical, and physical condition utilizing methods introduced in class. The report will be 4 – 5 pages, which will include some field data sheets.

There will be allowed 2 excused absences from lecture, after which there will be a 5 point per lecture reduction for each absence. There will be 1 excused absence from lab, and there will be a 10 point per lab reduction in points for each lab absence after. The lab is essential in this course and attendance is expected.

Small classroom assignments include 1 – 2 quizzes and 3 – 4 problem solving and data analysis assignments.

The graduate research paper will be a literature review on a current wetland management topic. The topic must be reviewed by, and agreed upon, by the instructor. The paper will be 4-5 double spaced pages, not including the literature cited section. A minimum of 4 peer-reviewed articles must be utilized in the literature review.

**Students With Special Requirements:**

Some students in any class will have special circumstances that can be identified and documented by the appropriate professionals. Students in the class with verified situations are encouraged to contact the Counseling and Personal Growth Center in Room 212 of Ceres Hall (231-7671) for assistance. Types of assistance that are available include having textbooks read into a tape recorder or taking examinations in the Center so that extra time may be provided. All students wishing to tape record lectures may do so with approval of the instructor.

**Veterans and student soldiers with special circumstances or who are activated are encouraged to notify the instructor in advance.**

**Attendance Policy**

*Attendance in classes is expected. Only the course instructor can excuse a student from course responsibilities. (The term course includes class, laboratory, field trips, group exercises, or other activities.) If class attendance is a component of the course grade, the course instructor must clearly communicate this to the class in writing in the syllabus. Information on the attendance policy and the responsibilities of the students and faculty can be found at <http://www.ndsu.edu/fileadmin/policy/333.pdf>.*

**Academic Honesty Statement:**

*The academic community is operated on the basis of honesty, integrity, and fair play. NDSU Policy 335: Code of Academic Responsibility and Conduct applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the Office of Registration and Records. Informational resources about academic honesty for students and instructional staff members can be found at [www.ndsu.edu/academichonesty](http://www.ndsu.edu/academichonesty).*

**Honor System:**

*The Honor System is a process of student self-governing for those enrolled in courses in the College of Agriculture, Food Systems, and Natural Resources. It operates on the premise that most students are honest and perform best in situations where their honesty, and the honesty of others, is not in doubt. Its primary function is to support the principles of integrity and honor, which are the cornerstones of academic success. The Honor System acts to limit academic dishonesty through the use of student self-supervision and to penalize those who are dishonest through the use of peer evaluation and penalty. Informational resources about the College's honor system can be found at [www.ag.ndsu.edu/academics/honor.htm](http://www.ag.ndsu.edu/academics/honor.htm) .*

*Under the Honor System, the chief responsibility for proctoring examinations, quizzes, and assignments lies with the individuals enrolled in the course. Under the Honor System, students themselves complete academic activities as assigned and counsel or report those who do not.*

**Honor Pledge:**

**On my honor, I have neither given nor received aid in completing this assignment.**

## **Wetland Resources Management / Lecture Outline Fall Semester**

Week 1	Introduction, History, Definitions of Wetlands, Wetland Law
Week 2	Wetlands Classifications, National Wetland Inventory, Status and Trends
Week 3	Prairie Pothole Region, Wetland Delineation
Week 4	Wetland Hydrology, Wetland Soils
Week 5	Wetland Soils
Week 6	Wetland Soils, Wetland Vegetation and Adaptations
Week 7	Wetland Vegetation
Week 8	Wetland Vegetation, Introduction to Wetland Assessment and Monitoring
Week 9	Stressor Identification, Natural Disturbance Impacts, Anthropogenic Impacts
Week 10	Hydrogeomorphic Model
Week 11	Index of Biological Integrity, Floristic Quality
Week 12	Predictive Modeling, Wetland Continuum Model
Week 13	Probabilistic Sample Design, Regional and National Wetland Assessments
Week 14	Wetland Restoration
Week 15	Wetland Creation
Week 16	Treatment Wetlands