WLDL/WATR 360/560: Wetlands Ecology and Management Spring Semester 2019 SYLLABUS

Course Information:

Lecture Time: Monday/Wednesday 8:00 am - 9:15 am

Lecture Location: TNR 120

Credits: 3

Prerequisite: NRES 250, 251

Instructor Information:

Dr. Kyle Herrman

Email: Kyle.Herrman@uwsp.edu (preferred contact method)

Office: 263 Trainer Natural Resources Building

Office Phone: 715-346-4832

Office Hours:

Time: Tuesday 10:00 am - 12:00 pm

Location: 263 Trainer Natural Resource Building Or by appointment if the assigned hours do not work

Course Objective:

The objective of this class is to expose students to the basic principles of wetland ecology. This will be accomplished using direct instruction methods (i.e., powerpoint lectures) but also guest lectures, group projects, and student led presentations. After completing this course a student will understand how a wetland properly functions and be able to value the services these unique ecosystems provide. We will cover a variety of topics ranging from soils to hydrology to plant biology to wildlife habitat so it is vital that students stay up to date on reading and seek help if they are unsure of course material. DO NOT wait until the last minute to get help because all of the material we will cover throughout the semester is comprehensive.

Learner Objectives:

- Identify how a proper wetland functions
- Describe the importance of hydrology in wetland ecosystems
- Implement the basic procedures of the Army Corps of Engineers wetland delineation method
- Describe the unique habitat wetlands provide and identify specific threats wetlands face

Required text:

WJ Mitsch and JG Gosselink. 2007. Wetlands (3rd Edition). John Wiley and Sons, Inc. New Jersey.

Grades:

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| A | 93-100 | C | 73-76 |
|----|--------|----|-------|
| A- | 90-92 | C- | 70-72 |
| B+ | 87-89 | D+ | 67-69 |
| В | 83-86 | D | 63-66 |
| B- | 80-82 | D- | 60-62 |
| C+ | 77-79 | F | < 60 |

Assignments:

| C | | | Percent of Total Grade | |
|----------------------------|---------------|--------------|------------------------|-------------|
| | Points | <u>Total</u> | <u>Undergrad</u> | <u>Grad</u> |
| Exams (4) | 25 | 100 | 100% | 67% |
| Paper (grad students only) | 50 | 50 | | 33% |

Exams:

Four exams will be given in class and consist of multiple choice and fill in the blank questions. Because of the nature of wetlands ecology all material covered in the exams will be comprehensive.

Paper (graduate students only):

The paper will be a 20 page (includes figures and tables) literature review on an issue facing wetland ecosystems. More details will be given later in the semester but generally this literature review will require a hypothesis to be introduced and defended using papers found in the wetland literature. Examples of accepted forms of literature are text books and articles found in peer reviewed journals - online sources will not be accepted. Because more than one student may be writing on the same topic DO NOT plagiarize. I will catch any form of plagiarism and you will not get away with it!

Attendance:

If you are going to miss a lecture or an exam please contact me as soon as possible. I will provide a make-up exam if the absence if appropriately documented and I am contacted prior to the exam. If you do not have an approved excuse for your absence you will lose one letter grade each day until you take your make-up exam.

Late Policy:

Exams cannot be made up without a valid excuse. If you have not checked with me beforehand the ONLY valid excuse would be an official note from a doctor.

Academic Misconduct:

Violations of academic integrity will result in automatic failure of the class and referral to the proper university officials. The work a student submits in a class is expected to be the student's own work and must be work completed for that particular class and assignment. Students wishing to build on an old project or work on a similar topic in two classes must discuss this with the professor. Academic dishonesty includes but is not limited to: cheating on an examination and submitting an assignment as your own work when all or part of the assignment is the work of another without proper citation. Sanctions can be applied whether the violation was intentional or not so please know how to properly cite references for a scientific paper.

For further information regarding UWSP policy please refer to Chapter 14 in the University Handbook (http://www.uwsp.edu/admin/stuaffairs/rights/rightsChap14.pdf)

Tentative Schedule (subject to change):

| Syllabus and Wetland valuation Wetland history Classification and types | Pg 571-604; Costanza et al. 1997 Ch 1 | |
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| | Ch 1 | |
| Classification and types | 1 * | |
| Classification and types | Ch 4; Pg 725-746 | |
| Wetland formation | Ch 8; Mitsch et al. 2005 | |
| Hydrology | Ch 5 | |
| Exam I | | |
| Redox reactions | Reading | |
| Wetland soils | Pg 155-164 | |
| | D 151 155 104 105 | |
| Wetland Biogeochemistry | Pg 171-177; 184-187; Jansson et al. 1994 | |
| | Jansson et al. 1994 | |
| Exam II | | |
| Wetland plants | | |
| NO CLASS | Pg 205-224 | |
| NO CLASS | | |
| Macroinvertebrates | | |
| Waterfowl (Van Horn) | | |
| Wetland management | Readings | |
| Mead Wildlife Area (Eyers) | | |
| Herpetofauna ecology | | |
| Exam III | | |
| Treatment wetlands | Ch 20 | |
| Wetland restoration (Gumtow) | | |
| Wetlands in the Mississippi River Basin | Mitsch et al. 2001 | |
| Wetland laws and mitigation | Ch 18 | |
| Watland delineation | Pandings | |
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| Everalades video | | |
| Evergiades video | | |
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