NRES 773: Applied Ecosystem Ecology and Management

Spring 2023
SYLLABUS

Course Information:
Entirely Online Course
Credits: 3
Readings, lectures, and assignments will be posted online and students are responsible to complete tasks as required.

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:
By appointment. Please contact me via email and we can setup a time to discuss any problems you may be having.

Course Description:
Investigate the flow of matter and energy through ecosystems, particularly focusing on carbon, nutrient, and tropic dynamics. Explore how humans have altered ecological processes and associated ecosystem services. Examination of ecosystem management through case studies.

Learning objectives:

- Understand the structure of basic terrestrial and aquatic ecosystems
- Describe the function ecosystems provide
- Describe how carbon and nutrients are cycled in various ecosystems
- Use ecological concepts to make sound management and/or restoration decisions

Required text:
Chapin III, FS, Matson, PA, and PM Vitousek. 2011. Principles of Terrestrial Ecosystem Ecology, 2nd Edition. Springer, New York.

Dodds, WK, Whiles, MR. 2017. Freshwater Ecology, 3rd Edition. Academic Press, San Diego.

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)

Late Policy:

All assignments can be turned in late and will be accepted. However, depending on the extent of the tardiness points will be deducted accordingly.

Grades:

Scale:

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

Assignments:

	Number	Points	Total Points	Percent of Total
Discussion Questions	14	5 or 10	120	27.3%
Journal Article Summary	12	10	120	27.3%
Exams	2	100	200	45.5%

Discussion Questions

For each section you will be given discussion questions that you must respond to in a thoughtful and clear manner. Most weeks these questions will rely on your readings and additional research to properly answer the discussion questions. Be sure you answer each question in a thorough and detailed manner. The best responses to these questions will utilize citations when needed to justify your response. Occasionally the discussion questions will be geared towards a general audience and will not require citations.

Journal Article Summary

For each section a different journal article has been selected for you to read as supplemental material for the lecture topic. After reading each article you must provide a summary of the article. Please do not repeat the abstract as I am more interested in the application of the article's findings. In your response I want you to summarize the design and scope of the study and provide a thorough discussion of its findings. In addition to the summary, I will sometimes provide a prompt or question related to the article. Once again, your response to this prompt needs to be answered in a thorough and detailed manner.

Exams

You will be required to complete a mid-term and final exam in this class. The exams will require to apply the knowledge you have gained through the readings to answer applied questions based on ecosystem topics. You should feel free to use citations to answer questions but be sure you properly cite any material you use in your response. Exams will be assessed in a variety of formats so please look over the questions carefully. If you are unclear on how to respond to a question, then please reach out to me. I will be happy to answer any clarifying questions.