

**NRES 151MW: Ecological Basis for Natural Resource Management**  
**For Natural Resources Majors**  
**Syllabus Spring 2021**

**Important Note:** This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check Canvas for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement or through email.

**Instructor:** Sophie Demchik

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**Office Hours:** No set hours. If you need help, email me and I will set up a time via Zoom.

**COURSE MATERIALS** There is no required textbook for this class. All course materials, including assigned readings, will be accessed through Canvas. However, if you would like to increase your background understanding of ecology, the suggested text is **Smith, T.M., and R.L. Smith. 2012. Elements of ecology. 8th ed. Benjamin Cummings, Boston.**

**COURSE DESCRIPTION** This course will explore the basic principles of ecology and application of those principles to the management of natural resources. The weekly lab will give you hands-on experience in scientific writing, use of library resources, use of data to make management decisions, and development of your critical thinking skills. The course is challenging and covers a wide range of topics.

**COURSE LEARNING OUTCOMES**

At the end of this course, you will be able to:

1. Describe and discuss basic ecological principles that underlie natural resources management.
2. Use data to make informed management decisions.
3. List and describe the parts of a scientific paper.
4. Write a scientific paper.

**STUDENT EXPECTATIONS**

- communicate via email
- read documents online
- download and upload documents to Canvas
- view online videos
- complete exams online

**COURSE DESIGN**

This course will be delivered synchronously via Zoom, with some asynchronous components in Canvas. You will use your UWSP account to login to the course from the [Canvas Login Page](#). If you have not activated your UWSP account, please visit the [Manage Your Account](#) page.

**CONDUCT** An environment of respect and cooperation is expected during this class.

**ACADEMIC INTEGRITY** Academic dishonesty in any form will not be tolerated. You will adhere to the Student Academic Standards outlined in Chapter UWS 14 of the Wisconsin Administrative Code (<http://www.uwsp.edu/dos/Documents/CommunityRights.pdf>). Cheating or plagiarism related to any of the course assessments will result in a score of zero for that assessment.

**ACOMMODATIONS** I will be glad to help if you need accommodations to succeed in this class. Please email me as soon as possible if you require accommodations.

**GRADING:**

<b>LECTURE</b>		<b>*Breakdown of the scientific paper:</b>	
Exam 1	15%	Title	2%
Exam 2	15%	Abstract	2%
Exam 3	15%	Introduction	2%
Lecture Final	15%	Methods	2%
		Results	2%
		Discussion	3%
		Literature Cited	2%
<b>LAB</b>			
Library Exercise	5%		
Scientific Paper*	30%		
Quizzes (4 x 1.25pts)	5%	Final Paper	15%
<b>Total</b>	<b>100%</b>	<b>Total</b>	<b>30%</b>

**Final grades** will be based on the percentage that you earn in lecture and lab. The grading scale listed below indicates what percentages are required to earn a certain grade.

Percentage	Letter Grade
93-100%	A
90-92.5%	A-
87-89.5%	B+
83-86.5%	B
80-82.5%	B-
77-79.5%	C+
73-76.5%	C
70-72.5%	C-
67-69.5%	D+
60-66.5%	D
0-59.5%	F

## Tentative Lecture Schedule

Date	Topic
T Jan 26	<b>Introduction to Ecology</b>
Th Jan 28	<b>Climate and biomes</b>
T Feb 2	<b>Natural selection and fitness</b>
Th Feb 4	<b>Adaptations to the environment</b>
T Feb 9	<b>Populations</b>
Th Feb 11	<b>Populations</b>
T Feb 16	<b>Population growth and carrying capacity</b>
Th Feb 18	<b>Exam 1</b>
T Feb 23	<b>Species interactions</b>
Th Feb 25	<b>Herbivory</b>
T Mar 2	<b>Predation</b>
Th Mar 4	<b>Competition</b>
T Mar 9	<b>Competition</b>
Th Mar 11	<b>Parasitism</b>
T Mar 16	<b>Mutualism</b>
Th Mar 18	<b>Exam 2</b>
<b>SPRING BREAK</b>	
T Mar 30	<b>Ecosystem development: primary succession</b>
Th Apr 1	<b>Ecosystem development: primary succession</b>
T Apr 6	<b>Ecosystem development: secondary succession</b>
Th Apr 8	<b>Ecosystem development: secondary succession</b>
T Apr 13	<b>Ecosystem development: succession and soil development</b>
Th Apr 15	<b>Ecosystem development: succession and soil development</b>
T Apr 20	<b>Ecosystem development: succession and soil development</b>
Th Apr 22	<b>Exam 3</b>
T Apr 27	<b>Energy Transfer and Biogeochemical Cycling</b>
Th Apr 29	<b>Energy Transfer and Biogeochemical Cycling</b>
T May 4	<b>Energy Transfer and Biogeochemical Cycling</b>
Th May 6	<b>Conservation Biology</b>

T May 11	<b>Conservation Biology</b>
Th May 13	<b>Review</b>
May 17-21	<b>FINAL EXAM</b>

## NRES 151MW – *Tentative* Laboratory Schedule Spring 2021

<b>Date</b>	<b>Topic</b>	<b>Assignments</b>
Jan 25-29	<b>Introduction to lab Introduce greenhouse competition study Scientific Writing: Title and Introduction</b>	
Feb 1-5	<b>Scientific Writing: Methods</b>	
Feb 8-12	<b>Conclude greenhouse experiment. Graphing in EXCEL Scientific Writing: Results</b>	<b>Draft of title and introduction due Feb 12</b>
Feb 15-19	<b>Scientific Writing: Discussion</b>	<b>Draft of methods due Feb 19</b>
Feb 22-26	<b>Scientific Writing: Literature Cited</b>	<b>Draft of results due Feb 26 Quiz 1 (due Feb 26)</b>
Mar 1-5	<b>Scientific Writing: Abstract</b>	<b>Draft of Discussion due Mar 5</b>
Mar 8-12	<b>Putting the paper together</b>	<b>Draft of literature cited and abstract due Mar 12</b>
Mar 15-19	<b>Polishing the paper</b>	<b>Final Paper due Mar 19 Quiz 2 (due Mar 19)</b>
Mar 22-26	<b>Spring Break</b>	<b>Spring Break</b>
Mar 29 – Apr 2	<b>Comparison of Three Communities</b>	
Apr 5-9	<b>Sampling vegetation and litter invertebrates</b>	
Apr 12-16	<b>Data analysis and interpretation of biotic diversity</b>	<b>Quiz 3 (due Apr 16)</b>
Apr 19-23	<b>Library Exercise</b>	
Apr 26-30	<b>TBA</b>	<b>Library Exercise due Apr 30</b>
May 3-7	<b>TBA</b>	<b>Quiz 4 (due May 7)</b>
May 10-14	<b>Review</b>	

# University of Wisconsin Stevens Point College of Natural Resources-Principles of Professionalism

The College of Natural Resources at the University of Wisconsin – Stevens Point prepares students for success as professionals in many fields. As a professional, there are expectations of attainment of several personal characteristics. These include:

## Integrity

Integrity refers to adherence to consistent moral and ethical principles. A person with integrity is honest and treats others fairly.

## Collegiality

Collegiality is a cooperative relationship. By being collegial you are respecting our shared commitment to student education through cooperative interaction. This applies to all involved in the process: students, staff, faculty, administration and involved community members. You take collective responsibility for the work performed together, helping the group attain its goals.

## Civility

Civility refers to politeness and courtesy in your interactions with others. Being civil requires that you consider the thoughts and conclusions of others and engage in thoughtful, constructive discussion to express your own thoughts and opinions.

## Inclusivity

Inclusivity requires you to be aware that perspective and culture will control how communication is understood by others. While many values are shared, some are quite different. These differences in values should be both considered and respected.

## Timeliness

Timeliness is the habit of performance of tasks and activities, planned in a way that allows you to meet deadlines. This increases workplace efficiency and demonstrates respect for others' time.

## Respect for Property

Respect for property is the appreciation of the economic or personal value an item maintains. Maintaining this respect can both reduce costs (increase the operable life of supplies and equipment) as well as demonstrate respect for others' rights.

## Communication

Professional norms in communication require that you demonstrate the value of your colleagues, students, professors, or others. The use of appropriate tone and vocabulary is expected across all forms of communication, whether that communication takes place face to face, in writing or electronically.

## Commitment to Quality

Quality is the ability to meet or exceed expectations. By having a commitment to quality, we intend to provide a learning environment that is conducive to learning. Intrinsic to this commitment to quality is defining expectation

(committed to in a syllabus through learning outcomes), implementation (with quality control in place) and assessment (where meeting of learning outcomes is determined).

### **Commitment to Learning**

**Learning is a lifelong process. By being committed to learning you are providing a model for all to follow. This model is not only professor to student but involves all combinations of people within our university and broader community**

Adherence to this compact is required of the faculty and staff of the College of Natural Resources and of all students enrolled in College of Natural Resources courses.