## NRES 151 Lab Syllabus - Ecological Basis for Natural Resources Management

## **Spring 2023**

Section: 5 Wed 10:00am - 11:50am TNR 153

Instructor: Sophie Demchik

Office: TNR 375

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Office Hours: Wed 9:00am-9:50

## **Critical Thinking Learning Outcomes**

This course is designated as a **Critical Thinking Course** in the UWSP General Education Program. Critical Thinking courses should meet the following learning outcomes (CTLOs):

- Recognize critical thinking as a process of identifying, analyzing, evaluating, and constructing reasoning in deciding what conclusions to draw (argumentation) or actions to take (decision-making and problem-solving).
- 2) Identify, analyze, evaluate, and construct reasoning as it is applied to general or discipline-specific questions or issues.
- 3) Communicate the analysis, evaluation, or construction of reasoning orally, visually, or in writing.

# **NRES 151 Course Learning Outcomes**

The learning outcomes specific to NRES 151 are as follows:

- Develop fundamental knowledge of the basic principles of ecology.
   <u>Assignments and assessments:</u> Lecture readings, lab exercises, lecture and lab exams.
- 2) Recognize critical thinking as a process of identifying, analyzing, evaluating, and constructing reasoning in deciding what conclusions to draw (argumentation) or actions to take (decision-making and problem-solving).
  Assignments and assessments: Lab/Lecture discussions and online tutorial quizzes [aligns with CTLO 1]
- 3) Use observations, experimentation, and simulation to gain knowledge of the natural world and management outcomes.

<u>Assignments and assessments:</u> Field trips, weekly lab activities, computer lab simulations, and a semester-long experiment in ecological competition.

- 4) Identify, analyze, evaluate, and construct reasoning regarding the application of basic ecological principles to natural resource management.
  - <u>Assignments and assessments:</u> Lab discussions, Library Resource, Assignment, various lab assignments [aligns with CTLO 2]
- 5) Communicate the analysis, evaluation, or construction of scientific reasoning in writing.

<u>Assignments and assessments:</u> Lab discussions, Scientific Paper Assignment [aligns with CTLO 3].

As you can see, the lab experience and assignments are critical to the overall learning outcomes of the course as well as to the alignment of this class with the learning outcomes of the Critical Thinking designation within the General Education Program.

**CONDUCT**: An environment of respect and cooperation is expected during this lab. Comments, questions, and discussions are encouraged, but disruptive behavior will not be tolerated.

**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.

**SPECIAL NEEDS**: I will be glad to help if you need special accommodations to succeed in this lab. Please see me as soon as possible if you require special accommodations due to physical limitations, a learning disability or other issues.

**<u>FIELD TRIPS</u>**: We will be out in the field for at least two labs. Field trips will go regardless of the weather (except for extreme weather, such as wind or tornado warnings), so be sure to dress accordingly.

**PROFESSIONALISM**: As a student in this class, you represent UWSP and the College of Natural Resources. You are expected to adhere to the CNR Principles of Professionalism (see end of this syllabus). Failure to adhere to this code will result in loss of part or all of your professionalism points.

<u>CELL PHONE USE</u>: Cell phones are not allowed in lab (unless I specifically state otherwise). Points will be deducted from your professionalism grade if you choose to ignore this.

**GRADING**: Your overall grade for this course will be based on performance in both lecture and lab. Out of a total of 100 points for the course, 60 points are available in lecture and 40 points are available in lab.

The **Lab Report** is to be submitted one week from your section's *greenhouse concluding lab*, as a *Word Document* (.docx) through Canvas.

Your lab **Professionalism** grade includes your participation and conduct during labs, as well as your attendance.

The **Lab Final** is taken during your lab time the week of May 8-12.

## **Lab Points Breakdown**:

CT#1-3 Quizzes	5 points
CT#4 Quiz Evaluating Reasoning	2.5 points
CT#5a Quiz Introduction Sentence Organization	2.5 points
CT#5b Quiz Methods Section	2.5 points
Library Assignment	2.5 points
Content Quizzes (2 @ 2.5 pts.)	5 points
Final Lab Report with Discussion	7 points
Professionalism	3 points
Lab Final	10 points
Total Lab Point	40 points

Section	Time	Day	Room	Instructor
4	10-11:50am	Monday	TNR 153	Shannon Finnerty
7	1-2:50pm	Monday	TNR 153	Jason Lins
1	8-9:50am	Tuesday	TNR 153	Jason Lins
9	2-3:50pm	Tuesday	TNR 153	Dr. Diane Lueck
5	10-11:50am	Wednesday	<b>TNR 153</b>	Sophie Demchik
8	1-2:50pm	Wednesday	TNR 153	Shannon Finnerty
3	9-10:50am	Thursday	TNR 153	Mi Yan
2	8-9:50am	Friday	TNR 153	Jacob Bergstrand
6	10-11:50am	Friday	TNR 153	Jacob Bergstrand

# NRES 151 – Tentative Laboratory Schedule Spring 2023

Dates	Topic Spring 2023	Location
Jan 23-27	Introduction to lab (Launch CT 1)	Meet in Lab
Jan. 30-Feb 3	Introduction to Hypotheses and Experimental Design; Begin Competition Study (CT 1 Due; Launch CT 2)	Meet in Lab
Feb. 6-10	Population growth and wolves of Isle Royale. (CT 2 Due; Watch Wolf Video before class)	Meet in Lab
Feb 13-17	Reading a Scientific Paper; Summarizing Sections of a Scientific Paper (Launch CT 3)	Meet in Lab
Feb. 20-24	Library Exercise; Making an argument in a Scientific Introduction (CT 3 Due; Launch Lib)	Meet in Lab
Feb. 27-Mar. 3	Species Concept (Lib Exercise Due: Launch CT 4) (Content Quiz 1)	Meet in Lab
Mar. 6-10	Keystone Predator. (CT 4 Due; Launch CT 5a)	Meet in Lab
Mar. 13-17	TBD	TBD
Mar. 20-24	Spring Break	Spring Break
Mar. 20-24 Mar. 27-31	Spring Break  Conclude greenhouse experiment. Graphing in EXCEL. (CT 5a Due; Launch CT 5b)	Spring Break Meet in Lab
	Conclude greenhouse experiment. Graphing in	
Mar. 27-31	Conclude greenhouse experiment. Graphing in EXCEL. (CT 5a Due; Launch CT 5b)	Meet in Lab
Mar. 27-31 April 3-7	Conclude greenhouse experiment. Graphing in EXCEL. (CT 5a Due; Launch CT 5b)  Intermediate Disturbance Hypothesis. CT5b Due  Biotic index for assessing water quality of	Meet in Lab  Meet in Lab  FIELD TRIP: Plover River
Mar. 27-31 April 3-7 April 10-14	Conclude greenhouse experiment. Graphing in EXCEL. (CT 5a Due; Launch CT 5b)  Intermediate Disturbance Hypothesis. CT5b Due  Biotic index for assessing water quality of Plover River.  Data analysis and interpretation of aquatic	Meet in Lab  Meet in Lab  FIELD TRIP: Plover River Meet in Lab
Mar. 27-31 April 3-7 April 10-14 April 17-21	Conclude greenhouse experiment. Graphing in EXCEL. (CT 5a Due; Launch CT 5b)  Intermediate Disturbance Hypothesis. CT5b Due  Biotic index for assessing water quality of Plover River.  Data analysis and interpretation of aquatic invertebrates.  Community structure, diversity, vegetation,	Meet in Lab  Meet in Lab  FIELD TRIP: Plover River Meet in Lab  Meet in Lab  Meet at
Mar. 27-31 April 3-7 April 10-14 April 17-21 April 24-28	Conclude greenhouse experiment. Graphing in EXCEL. (CT 5a Due; Launch CT 5b)  Intermediate Disturbance Hypothesis. CT5b Due  Biotic index for assessing water quality of Plover River.  Data analysis and interpretation of aquatic invertebrates.  Community structure, diversity, vegetation, and litter invertebrates. Final Papers Due.  Processing Invertebrates, Data Analysis, and Interpretation of Biotic Diversity	Meet in Lab  Meet in Lab  FIELD TRIP: Plover River Meet in Lab  Meet in Lab  Meet at Schmeeckle Reserve

## 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.