

SYLLABUS - FOR 332

Forest Ecosystem Ecology

Fall 2023

General Course Information:

Lecture: 12:00 – 12:50p Mon. & Fri., TNR-120

Discussion-1: 12:00 – 12:50p Wed., TNR-352 & Schmeeckle Reserve

Discussion-2: 1:00 – 1:50p Wed., TNR-352 & Schmeeckle Reserve

Instructor: Dr. Mike Tiller

Office: TNR-367

Office Hours: Mon. & Tue. 1:00 - 2:00p, or by appointment

Office Telephone: (715) 346-2153

Email: mtiller@uwsp.edu

Required Textbook: Forest Ecology, 4th edition 1998. by Burton V. Barnes et al. – Supplemental readings from peer-reviewed journals and other sources will be posted in Canvas to accompany lecture and discussion topics.

Course Objectives:

The overall objective for the course is to provide a broad ecological understanding of forest structure, function, and dynamics. Upon successful completion of this course, you will be able to:

- 1) explain important interactions among organisms and plants;
- 2) understand the influence of site on forest community structure and composition
- 3) explain how nutrient availability, climate and other factors influence patterns of vegetation
- 4) describe and discuss community structure, diversity, and dynamics;
- 5) explain factors that influence succession and community response to disturbance;
- 6) describe and explain landscape structure, and its relevance to resource management;
- 7) understand the linkages between carbon cycles in forests and global carbon cycles;
- 8) explain the influence of climate change on forest ecosystems as well as strategies for mitigating and adapting to climate change.

The course's focus is the temperate zone and on ecological principles that provide the foundation for resource management.

Content and learning outcomes associated with FOR 332 are aligned with the following SAF competencies:*Ecology and Biology*

- acquire an aptitude to make ecosystem and forest stand assessments;
- attain knowledge of tree physiology and the effects of climate, pollutants, moisture, nutrients, genetics, insects, and diseases on tree and forest health and productivity.

Conduct: An environment of respect and cooperation is expected during this class. Comments, questions and discussions are encouraged, but disruptive behavior will not be tolerated. Electronic devices are not allowed (unless I specifically state otherwise).

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.

Grading:

Assessment	% Grade
Lecture exams (3 @ 20%)	60%
Site assessment exercises (7 assignments)	20%
Final site assessment report	15%
Professionalism	5%
	100%

Grading scale

Percent and corresponding letter grade

≥93	A
87-92	A-
81-86	B
74-80	B-
67-73	C
61-66	C-
55-60	D
<54	F

Attendance Policy: Attendance will not be taken in lecture and no penalty will be imposed for missing a lecture. However, discussion attendance is strongly encouraged and is required to complete group assignments. For each unexcused absence you will incur deductions in your professionalism grade. Furthermore, if you are not pulling your weight as a group member, you will be deducted professionalism points and possibly assignment points depending on the situation.

Student Responsibility: To keep up with the readings, to get ALL notes if you miss a lecture and to turn in your assignments on time. If you have an emergency or are ill, extensions will be provided, but it is your responsibility to inform me, **in writing or by e-mail**, why you missed class. Also, if any material is not clear, YOU must let me know; I will be happy to sit down with you one-on-one and discuss it as much as you need.

Students with Disabilities: The university has a legal responsibility to provide accommodations and program access as mandated by Section 504 and the Americans with Disabilities Act (ADA). The university's philosophy is to not only provide what is mandated, but also convey its genuine concern for one's total well-being. If accommodations are needed, please contact the instructor as well as the Disability Resources Center, 609 Albertson Hall (ALB)/the Library room 108 in Collins Classroom Center (CCC): phone (715) 346-3365 or email: drc@uwsp.edu.

Professionalism: Students in the College of Natural Resources are pursuing courses of study that prepare them for careers as natural resources professionals. Thus, CNR students and faculty/staff are expected to exhibit conduct and attitudes appropriate to professionals. Conduct and attitudes appropriate for professionals include, but are not restricted to,

- Appreciation for ethnic and gender diversity in the workplace;
- Respect for others and for their ideas;
- Adherence to professional ethics, e.g. the Society of American Foresters or Wildlife Society Code of Ethics.
 - SAF Code of Ethics: <https://www.eforester.org/CodeofEthics.aspx>
 - Wildlife Society Code of Ethics: <https://wildlife.org/wp-content/uploads/2017/07/Code-of-Ethics-May-2017.pdf>

FOR 332 TENTATIVE SCHEDULE 2023

Week	Date	Topic	Readings
1	Sept 6-8	Course introduction, ecology definitions	Chapter 1
	Sept 6	Introduce site assessment assignment	
2	Sept 11-15	Physiography	Chapter 10:224-233
	Sept 13	<i>Site assessment: Stand delineation</i>	
3	Sept 18-22	Light; temperature	Chapters 8 and 9
	Sept 20	<i>Site assessment: Stand map/soils</i>	
4	Sept 25-29	Soil; tree structure and growth	Chapter 11 Chapter 6
	Sept 27	<i>Site assessment: Habitat type</i>	
5	Oct 2-6	Regeneration ecology; invasives	Chapter 5
	Oct 4	<i>Site assessment: Understory Diversity</i>	
6	Oct 9-13	Community interactions and competition	Chapter 4 Chapter 15
	Oct 11	<i>Site assessment: Overstory and understory survey</i>	
7	Oct 16-20	Northern and southern forests of WI Lecture exam 1 due Oct 20	
	Oct 18	<i>Site assessment: Wildlife survey</i>	
8	Oct 23-27	Climate; hydrologic cycle	Chapter 7
	Oct 25	<i>Site assessment: Basal area/CWD</i>	
9	Oct 30-Nov 3	Landscape ecology; physiographic diversity	Chapter 21 Chapter 10: 234-248
	Nov 1	<i>Site assessment: Work on site summary</i>	
10	Nov 6-10	Disturbance ecology; fire	Chapters 12 and 16
	Nov 8	<i>Site assessment: Work on site summary</i>	
11	Nov 13-17	Forest Succession	Chapter 17
	Nov 15	<i>Discussion: Forest Fire Management</i>	
12	Nov 20	Forest wildlife; diversity	Chapters 14 and 20
	Nov 22-24	THANKSGIVING BREAK	
13	Nov 27-Dec 1	Site quality; nutrient cycling Chapters 13 and 19	Chapters 13 and 19
	Nov 29	<i>Discussion: Deer and Forest Mgt.</i> Site assessment assignment due	
14	Dec 4-8	Carbon balance; climate change Lecture exam 2 due Dec 8	Chapter 18
	Dec 6	<i>Discussion TBD</i>	
15	Dec 11-15	TBD	
	Dec 13	<i>Review</i>	
16	Dec 19	FINAL EXAM WEEK	

Adherence to the following code of conduct is required of the faculty and staff of the College of Natural Resources and of all students enrolled in the College of Natural Resources courses.

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.