

NR141 Intro to Forest Ecosystems Syllabus

Instructor

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Office Location

180-517

Office Hours

T/TH 9:30 – 11:00 am

Or by Appointment

Course Overview

This course introduces students to all aspects of multiple-use forest ecosystem management. Students will learn the terminology and concepts associated with forest ecosystems and leave the course with an improved understanding of forest conservation and management. The aim of the course is to provide students will an opportunity to explore the many aspects of and opportunities within this field of study.

Learning Objectives

This course:

- Provides an interdisciplinary, ecosystem perspective of forest management.
- Trains students to identify and describe the ecological, social, and economic factors of forest conservation and management.
- Introduces basic terminology and concepts of forest ecosystem ecology.
- Presents fields of study and potential career options related to forest ecosystems.

Prerequisites

A basic understanding of biology will help you in learning these new concepts, but no prior college-level science is required.

Required Text

No text required for this course. Required readings will be posted to PolyLearn.

Study Suggestions

- Attend class. Research shows that students with regular attendance receive (on average) one full letter grade higher than those who do not attend regularly.
- Take notes! You are responsible for the material presented and discussed in class, regardless of whether or not it is on the PowerPoint.
- We all learn differently. Find study methods that work best for you, and practice them.
- Meet with me if you are struggling. I'm here to help, and I love to talk about ecology.

Class Etiquette

- Cell phone use is not permitted in class. Keep the texting, emailing, and social media for your own personal time. If you are caught using your phone, you will be warned once and then asked to leave the class. Do not attend class if you feel you have better things to do.
- Refrain from socializing during class. It is distracting to both your peers and your professor. Catch up with your friends before or after class.

Readings and Assignments

Assigned Reading: You are expected to assume responsibility of some learning of new material on your own. Class time is meant to reinforce concepts and provide examples from real-world scenarios. Preparing for class includes completing the assigned readings. During each lecture, you will be asked to answer one question that applies knowledge from the assigned reading. These assessments will apply toward your participation grade. Readings will be posted to PolyLearn.

Assignments: There will be four assignments spaced throughout the quarter. Each will require writing and research. Answers are to be typed and submitted in class on the date due.

Case Study Presentations & Discussion: We learn best when we are able to connect abstract concepts to reality. To facilitate such learning, groups will be selected and assigned case study topics for in-class discussion. You will be tasked with selecting a scenario that exposes the class to real-world application. Case studies may come, for example, from scientific research publications or reports of on-the-ground management. Come chat with me about ideas. Each group is expected to present a 10-minute summary on the topic (and associated case study) and then lead the class in discussion. The format of the presentation and discussion are up to the group and may vary week to week (i.e. PowerPoint presentation, large group discussion, small group discussion, activities, etc.). Come prepared to participate.

Late Homework: Late assignments will be penalized at 20% per day and will not be accepted two days after the due date.

Academic Dishonesty

Homework must be individual work. It is okay to work with other students to understand the material, but you must write up your own homework assignments. Cheating will not be tolerated. Examples of cheating include, but are not limited to:

- Turning in identical homework assignments.
- Plagiarizing from sources outside of the course. You may use information from books, articles, or websites but must give correct attribution to the source.
- Using one student's homework and changing some words in your version is plagiarism.

Attendance and Participation

In-class activities and discussion count toward your final grade. Be an active part of your own learning experience. *Perfect attendance and active participation will be rewarded with an extra 2% added to your final grade in the class.*

Grading (500 possible points)

- Homework Assignments (100 points, 25 points each)
- Case Study Presentation and Discussion Lead (25 points)
- Midterm Exams (200 points, 100 points each)
- Final Exam (150 points)
- Participation and Attendance (25 points)

Exams will be short-answer format and cover the material from lectures (including everything discussed and written on the board), readings, and homework assignments. I assume that each of you is very good at memorizing information, but exams will evaluate your ability to apply knowledge rather than your retention of facts and definitions. Exams will ask you to think critically and synthesize material.

Make-up exams will only be offered to students who have extenuating circumstances and with proper documentation.

Grading Scale is as follows: 100 – 93% = A, 92 – 90% = A-, 89 – 87% = B+. 86 – 83% = B, 82 – 80% = B-, 79 – 77% = C+, 76 – 73% = C, 72 – 70% = C-, 69 – 67% = D+, 66 – 63% = D, 62 – 60% = D-, < 60% = F.

A curve may be generated at any time at the discretion of the instructor.

Tentative Lecture Schedule

Date	Section	Subject	Readings* & Assignments
Jan 7	<i>Forests & Trees</i>	Intro to Course & Forest Ecosystems	Perry Ch. 9 (pgs. 156 – 172)
Jan 9		Tree Physiology & Life History	Barnes Ch. 6
Jan 14		Species Evolution & Adaptation	Barnes Ch. 4
Jan 16		Climate & The Abiotic Environment Case Study: Migration & Adaptation	Barnes Ch. 7 Due: Tree Life History
Jan 21		NO CLASS	
Jan 23		Forest Stand Dynamics	Barnes Ch. 17
Jan 28		Forest Regions & Global Distribution	Perry Ch. 3 - 4
Jan 30		Midterm 1	
Feb 4	<i>Forest Environment</i>	Soils & Nutrient Cycling	Perry Ch. 14 Due: Journal Article Summary
Feb 6		Watershed Hydrology Case Study: Management Impacts on Watersheds	NRC 'Forests & Water' PDF
Feb 11		Forest Disturbances	Perry Ch. 7
Feb 13		Forest Fire & Insects Case Study: Disturbances of Western forests	Barnes Ch. 12
Feb 18		Invasion Ecology	Perry Ch. 7 Due: Invasive Species
Feb 20		Midterm 2	
Feb 25	<i>Management & Conservation</i>	History of Forest Management Forest Products & Use	
Feb 27		Forest Management & Silviculture Case Study: Conservation of Western forests	Kimmins – Primer on Forestry
Mar 4		Conservation	Perry Ch. 22 Due: Conservation Essay
Mar 6		Forests & Global Change Case Study: Climate change impacts	Millar et al. 2007
Mar 11		Wrap-Up	
Mar 13		Final Exam Review Session	
Mar 18		Final Exam (1:10 – 4:00 pm)	

*Readings should be completed prior to each date listed. These readings will be the basis of class discussion.