

Sustainable Landscape Ecology K207

Instructor: Judy Preston

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Class: Tuesday and Thursday 11:00 – 12:15

Classroom: B210

Text: Teaming with Microbes: The Organic Gardener's Guide to the Soil Food Web (Revised Edition)

http://www.timberpress.com/books/teaming_microbes/lowenfels/9781604691139

Text: Practical Ecology

Author: Perlman

ISBN: 9781559637169

Copyright Year: 2005

Publisher: Island Press

Online Texts:

The Sustainable Sites Initiative, The Case for Sustainable Landscapes

<http://www.sustainablesites.org/report/>

Northeast Organic Farmers Association (NOFA) Standards for Organic Land Care

<http://www.organiclandcare.net/accreditation/standards>

Course Description and Objectives:

This course is designed to provide an interdisciplinary understanding of the practical applications of sustainability: aligning land development, protection, and management practices with the functions of healthy ecosystems. Students will apply the practical understanding of ecology, including aquatic environments and the soil food web, to solutions to common environmental problems. Emphasis will be placed on the applications of the soil food web to the stewardship of both agricultural and non-agricultural lands. Skill objectives include environmental site evaluation, impact analysis, problem solving, stewardship, and communications.

Week	In Class Topic	Reading/Assignments
TH Jan 23	Course Overview and Introductions	--
TU Jan 28	Introduction to Landscape Ecology Sustainable Landscapes	http://www.sustainablesites.org/why/
TH Jan 30		The Case for Sustainable Sites (on line)

TU Feb 4	Ecological Concepts	Intro to Ecology and Biodiversity (Perlman, Milder) Ch2
TH Feb 6	No Class	Writing Assignment: Change Through Time – Perlman Ch4
TU Feb 11	The Ecology of Landscapes Landscape Ecology Principles	The Ecology of Landscapes (Perlman, Milder) Ch6 NOFA @ TRCC
TH Feb 13		
TU Feb 18	Aquatic Landscapes QUIZ I	Aquatic Environments (Chiras) Teaming with Microbes Ch 1,2
TH Feb 20		
TU Feb 25	Introduction to Soils (physical properties) Soil Ecology (organic matter)	Soil Biology Primer Teaming with Microbes Ch 3-8
TH Feb 27		
TU Mar 4	Group Project	TBD
TH Mar 6		
TU Mar 11	Soils and Landscape Phytoremediation	The Hidden Forest (handout) Mycorrhizae and Plants, Glomalin Writing Assignment
TH Mar 13		
Mar 17-23	Spring Break	
TU Mar 25	Writing Assignment Discussion Organic Land Care	NOFA standards for Organic Land Care
TH Mar 27		
TU Apr 1	Planning and Designing Open Spaces Benefits of Nature	Planning and Designing Open Spaces (Perlman)
TH Apr 3		Study for Quiz
TU Apr 8	QUIZ II Green Design	http://new.usgbc.org/ Sustainable Sites
TH Apr 10		
TU Apr 15	Invasive Species and Landscapes (field)	Supplemental reading
TH Apr 17		
TU Apr 22	Sediment & Aquatic Habitats (field)	Supplemental reading
TH Apr 24		
TU Apr 29	Sustainable Agriculture Agriculture in Connecticut	Writing Assignment
TH May 1		
TU May 6	Climate Change and Landscapes NOFA Exam review	http://climate.nasa.gov/index
TH May 8		
TU May 13	Semester Review FINAL EXAM	Study for Final
TH May 15		The end

EVALUATION AND GRADING

20% - QUIZZES (2)

25% - FINAL EXAM

15% - ASSIGNMENTS

20% - PRESENTATION

20% - ATTENDANCE AND PARTICIPATION

Course Policies:

- ***Regular attendance and class participation is expected of each student.***
- *Electronic Devices (cell phones, MP3 players, etc.):* These devices must be turned off when entering the room to maintain a respectful class atmosphere. You will be asked to leave if you disregard this requirement.
- *Late/Missed Work:* All assignments are due the following week after it has been assigned unless otherwise specified. After this time the assignment will not be accepted and the student will receive a zero.
- *Quizzes* will be based on lecture, reading material, and supplementary materials. There will be ***no make-up of quizzes*** without prior approval.
- Last day to select *Pass/Fail option* is April 14, 2013.
- *Withdrawal:* The last day to withdrawal from this course is May 12, 2013.
- *Academic Conduct:* It is expected that each student will turn in only his or her own work. Violations of the Student Code are taken seriously. This includes copying or sharing answering on tests or individual assignments, plagiarism, or having someone other than yourself do your work. Depending on the act, a student could receive an F grade on the test/assignment, an F grade for the course, or could be suspended or expelled.

For Your Knowledge, cheating and plagiarism are defined below:

Cheating is defined as the giving of assistance to another or the receiving of assistance from another person, another examination paper, other written material, or any source not explicitly permitted by the instructor, is cheating. Thus, you may not look at another's paper or answers; you may not show your paper or answers to another or leave your paper or answers around for others to look at; and, you may not verbally read or reveal your answers to another. It is also cheating to have access, without the instructor's approval, to examination, quiz, or test questions prior to the administration of the examination, quiz, or test.

Plagiarism is the submission or presentation of ideas or work in any form that are not one's own without appropriate acknowledgement of the source(s). Even with the acknowledgement, close paraphrasing can constitute plagiarism. You may quote the work of others if properly referenced.

Special Needs: Please inform me as soon as possible if you require any accommodations in addition to those provided here.

Useful Websites

Go Botany. Want to know what that plant is? Using a Simple Key, you can identify over 1,200 common native and naturalized New England plants. Observe closely, collect a sample or take a photo, answer some questions, and narrow down to the correct identification. <http://gobotany.newenglandwild.org>

CT ECO provides a variety of tools for sharing natural resource and environmental information. Types of information include water resources, soils, open space, geology and aerial imagery. <http://www.cteco.uconn.edu/>

Soil Biology Primer http://soils.usda.gov/sqi/concepts/soil_biology/biology.html

Wild Ones: Native Plants, Natural Landscapes promotes environmentally sound landscaping practices to preserve biodiversity through the preservation, restoration and establishment of native plant communities. Wild Ones is a not-for-profit environmental education and advocacy organization. www.wildones.org/

Mycorrhizae and Plants www.wildones.org/download/.../mysterymycorrhizaeandplants.pdf

Glomalin: Hiding Place for a third of the world's stored soil carbon
www.wildones.org/download/mysteries/mysteryglomalin.pdf