Biology 462: Plant Ecology
Spring 2003

Dr. Nakamura
Bio. Sci. 214
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lecture: Tues. and Thurs. 1:30-2:45 pm, BS 245
lab: Tues. 2:55-5:25 pm, BS 220
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Office Hours: Monday 3:00-5:00 pm, Wednesday 3:30-5:00 pm or by appointment
Textbook: *The Ecology of Plants* by Gurevitch, Scheiner and Fox, 2002

The learning objectives of Biology 462 are for you to understand the interactions of plants with their environment and each other, to apply the fundamental concepts and theories of plant ecology, and to become acquainted with the research literature of this field. We will examine the distribution and abundance of plants from the viewpoints of ecophysiology, demography, species interactions, community ecology and ecosystem function. The prerequisite is completion of Biology 360, General Ecology.

Date	**Topic**	**Assigned Reading**
April 1	On Being a Plant Introductory lab on seed experiments	pp. 143-146
April 3	Growth and Reproduction	pp. 146-150
April 8	Light and Photosynthesis Lab to set up seed experiments	Chapter 2
April 10	Temperature and Water Relations	Chapter 3
April 15	Field Trip to Towsley Canyon	
April 17	Nutrient Acquisition	Chapter 4
April 22	Pollination Lab on field trip and Oral Reports	pp. 150-161
April 24	Seeds	pp. 161-165
April 29	Plant Enemies and Defenses Lab 1st Essay due	Chapter 11
May 1	Plant Neighbors	pp. 185-204
May 6	MIDTERM Lab	

May 8	Population Structure	pp. 120-123
May 13	Demography Matrix models lab	pp. 117-120, 123-128, 133-135
May 15	Life Histories	pp. 167-176
May 20	Plant Communities Lab	Chapter 12, pp. 374-379, 381-387
May 22	Ecosystem Function 2nd Essay due	Chapter 15
May 27	Field Trip	
May 29	Community Diversity	Chapter 20
June 3	Community Change Lab to analyze field trip data	Chapter 13
June 5	Agroecosystems	
June 12	FINAL EXAM 1:30-4:00 pm	

You will give one oral report on a published research paper and write two short essays. During some lecture and lab periods, you will turn in for a grade student responses to the material. The midterm and final exams will consist of brief objective questions, numerical problems and short essay questions. The material on the exams will include the lecture, lab, field trips and assigned readings. I will deduct 10% of the grade from late essays and will accept no late essay more than two school days late. All assignments must be turned in during class or to my office, BS 214. Do NOT turn in assignments to the Biological Sciences office.

Grading:	Oral Report	20 points
	Essays (25 points each)	50 points
	Student Responses	30 points
	Midterm Exam	70 points
	Final Exam	80 points
	TOTAL	250 points

I will use plus/minus grading. The course grade distribution is based on the class average, with the exceptions that anyone with less than 125 points gets an F and anyone with 230 points or more automatically gets an A. Anyone above the class average will receive at least a B.