BIOL 221, Concepts of Botany, Spring 2013
Course Web: http://herbarium.millersville.edu/class-web/221.htm

Lecture (Roddy 261): T R, 11:00-12:15
Lab (Roddy 279): A, W 9-11:50 B, W 2-4:50;
C, R 1-3:50; D (Dr. Ladd), R 6-8:50.
Instructor Dr. Christopher Hardy office: Roddy 271 office hrs: M & F 9-10:50, R 10-10:50
tel: 871-2312 web: http://herbarium.millersville.edu/hardy.php

Required Text: Evert RF, SE Eichhorn. 2013. Raven Biology of Plants, 8th Edition. WH Freeman and Co. New York, NY, USA.

Suggested Lab Materials: (these and other materials may be required by your lab instructor)
1. Lab Manual: Hardy CR (ed). 2013. Guide to Lab Exercises in Concepts of Botany. Millersville, Pennsylvania, USA.
2. 3-ring binder with tabs for holding lab handouts.
3. 3-hole looseleaf paper for notes in lab.
4. Colored pencils (at least red, blue, green) for lab drawings.
5. Scientific calculator.

Schedule

Lecture Topic		**Lab (may change w/ instructor)**
Structure & Development		
Week of Jan 28:	Introduction	Introduction to Botany
Week of Feb 04:	The Primary Plant Body	Primary Morphology
Week of Feb 11:	The Primary Plant Body	Primary Anatomy
Week of Feb 18:	Seeds & Seedlings, Cereals & Legumes	Cereals & Legumes (Seeds & Seedlings)
Week of Feb 25:	The Secondary Plant Body	Plant Modifications & Marketplace Vegetables
Physiology & Function		
Week of Mar 04:	Water	Wood, Cork, & Bamboo
Week of Mar 11:	**Exam 1 (Tuesday, Mar 12)**	Water Relations
Week of Mar 18:	Spring Break	Spring Break
Week of Mar 25:	Hormones & Tropisms	Hormones & Tropisms
Week of Apr 01:	Photosynthesis	Photosynthesis
Diversity & Evolution		
Week of Apr 08:	Ethnobotany of Secondary Metabolism	Ethnobotany of 2° Metabolism
Week of Apr 15:	**Exam 2 (Wednesday, Apr 16)** Algae	Algae
Week of Apr 22:	Bryophytes & Pteridophytes	Bryophytes & Pteridophytes
Week of Apr 29:	Gymnosperms	Gymnosperms
Week of May 06:	Angiosperms	Angiosperms
Final Exam: **Monday, May 13, 2:45-4:45 PM**		

Reading Assignments Will be announced in class. You are responsible for all content in the assigned readings.

Grading A point system is employed. Final letter grades are determined based on the percentage of total possible points your earn as follows (A = 93-100%; A- = 90-92; B+ = 87-89; B = 83-86; B- = 80-82; C+ = 77-79; C = 73-76; C- = 70-72; D+ = 67-69; D = 63-66; D- = 60-62; F = below 60%).

Lecture Exam 1	50
Lecture Exam 2	50
Final Lecture Exam	75
Lab	100 (scaled from your lab instructor's points)
Total points possible	275

No make-up exams.

Objectives At the successful completion of Biol 221, a student should be able to

1. Understand the organization in plants from the cellular to tissue to organ to organism level.
2. Understand basic plant metabolism, including Electron Transport, and the Light and Dark Reactions of Photosynthesis.
3. Understand specific aspects of internal transport in plants including diffusion, osmosis, transpiration, translocation, root pressure, turgor pressure, osmotic pressure and plasmolysis.
4. Understand and describe the mechanisms controlling plant behavior to light, gravity, touch, wounding and regeneration, and to flowering.
5. Recognize salient features and diversity within and between major plant taxa, and to develop a lineage of features from plesiomorphic to derived groups of plants.
6. Explain how the biology, anatomy, and structures of plants relate to their uses by humans.
7. Understand basic processes in the production of food, shelter, medicines, from plants.
8. Understand the role of plants in important societal issues.

Special Needs Please let me know if you have any disabilities or special needs that might affect your performance in this course. I will do my best to accommodate you.

Attendance Attendance is expected for all lectures and labs.

Honesty Each student is expected to adhere to the Millersville University's Academic Honesty Policy. Violation of it results in a zero for the assignment. The policy can be found in the Student Handbook and the Academic Honesty and Dishonesty brochure.