BIOL 221, Concepts of Botany, Spring 2015
Web: http://herbarium.millersville.edu/hardy.php

Lecture (Roddy 261): T R, 2:30-3:45
Labs (Roddy 279): A, M 1-3:50 (Dr. Wagner) B, T 9:30-12:20 (Dr. Ladd)
C, W 1-3:50 (Dr. Wagner) D, R 9:30-12:20 (Dr. Hardy)
Lecture Instructor Dr. Christopher Hardy
office: Roddy 271 tel: 871-2312 office hrs: M, T & W 9:20-11:00
Required Text: Evert RF, SE Eichhorn. 2013. Raven Biology of Plants, 8th Edition. WH Freeman and Co. New York, NY, USA. ISBN: 9781429219617.
Lab Materials:
1. Lab Manual: Hardy CR, RL Wagner (eds). 2015. Guide to Lab Exercises in Concepts of Botany, 3rd edition. 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 19:	Introduction Ch. 1 & 3 (p. 38-62)	Introduction to Botany
Week of Jan 26:	The Primary Plant Body Ch. 22 & 25	Seeds & Seedlings
Week of Feb 02:	The Primary Plant Body Ch. 24	Primary Morphology
Week of Feb 09:	The Secondary Plant Body Ch. 26	Primary Anatomy
Week of Feb 16:	The Secondary Plant Body	Wood, Cork & Bamboo
Physiology & Function		
Week of Feb 23:	Water: Ch. 4 (p. 75-81) & 30 **Exam 1 (Thu, Feb 26)**	Plant Modifications & Marketplace Vegetables
Week of Mar 02:	Hormones & Tropisms Ch. 27 & 28	Water Relations
Week of Mar 09:	Spring Break	Spring Break
Week of Mar 16:	Photosynthesis Ch. 7	Hormones & Tropisms
Week of Mar 23:	Ethnobotany of Secondary Metabolism Ch. 2 (p. 30-34)	Photosynthesiss
Diversity & Evolution		
Week of Mar 30:	Algae Ch. 13 (p. 263-267) & 15	Ethnobotany of 2° Metabolism
Week of Apr 06:	Bryophytes & Pteridophytes (Ch. 16 & 17) **Exam 2 (Thu, Apr 9)**	Algae
Week of Apr 13:	Gymnosperms Ch. 18	Bryophytes & Pteridophytes
Week of Apr 20:	Angiosperms Ch. 19	Gymnosperms
Week of Apr 27:	TBA	Angiosperms
Final Exam: **Fri, May 8, 12:30-2:30 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	140 (scaled from your lab instructor's points)
Total points possible	315

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.