

BIOL 221, Concepts of Botany, Spring 2009

Course Web: <http://herbarium.millersville.edu/class-web/221.htm>

Instructor Dr. Chris Hardy office: Roddy 271 office hrs: Mon & Tue 1-3 pm, We 10-11 am
tel: 871-2312 Web: <http://herbarium.millersville.edu/hardy.php>

Req Text 1. Stern, KR, JE Bidlack, and SH Jansky. 2008. Introductory Plant Biology, 11th Ed. McGraw-Hill, Boston. (ISBN 978-0-07-331421-1.)

Opt Text 2. DeGraaff, Rushforth, & Crawley. 2004. Photographic Atlas for Botany Laboratory, 4th Ed. Morton Publishing Co., Englewood.

Schedule

Date	Lecture	Minimum Reading
Jan 13 & 15	- Introduction	Chap. 1
Jan 20 & 22	- Roots & Shoots	pp. 65 - 80; 108-121 & 123-124
Jan 27 & 29	- Shoots; Seeds, embryos & seedlings	pp. 86-90, 95-98; 143-147
Feb 03 & 05	- Wood & Cork	pp. 90-95, 99-103
Feb 10 & 12	- TBA	
Feb <u>17</u> & 19	- Exam 1 (Feb 17); Water in plants	Chap. 9
Feb 24 & 26	- Growth (incl. Tropisms & Hormones)	Chap. 11
Mar 03 & 05	- Spring break	Chap. 10
Mar 10 & 12	- Photosynthesis	pp. 166-180, 187
Mar 17 & 19	- TBA	
Mar 24 & 26	- Cyanobacteria; Algae	pp. 303-306; 318-338
Mar <u>31</u> & Apr 02	- Exam 2 (Mar 31); TBA	
Apr 07 & 09	- Bryophytes; Pteridophytes	pp. 372-383; 386-405
Apr 14 & 16	- Gymnosperms & Angiosperms	pp. 410-425; 429-440, 127-142
Apr 21 & 23	- Plant Ecology	TBA
Apr <u>27</u>	**FINAL EXAM**, Mon 2:45-4:45 pm	--

Grading A point system is employed. Final letter grades are determined based on the percentage of total possible points you 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

No make-up exams.

<u>Lab</u>	100 (scaled from your lab instructor's points)
<u>Total points possible</u>	275

- 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.

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 Required for lab, strongly suggested for lecture.

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.