BIOL 325, Plant Systematics, Fall 2012
Course Web: http://herbarium.millersville.edu/325.php

Lecture: W & F 12-12:50, Roddy 286 **Lab:** F 1-3:50, Roddy 279

Instructor: Dr. Chris Hardy Office Hrs: Roddy 271, M 11-1, T 10-12, Th 12-1
Tel: 871-2312 Web: http://herbarium.millersville.edu/hardy.php

Required:
1. Rhoads, AF, and TA Block. 2007. *The Plants of Pennsylvania: An Illustrated Manual, 2nd Edition*. University of Pennsylvania Press. (ISBN: 0-8122-4003-0)
2. Hand magnifying lens (10x or greater).
3. Ca. $3-4 for Longwood Gardens fieldtrip.
4. Preparedness for the out-of-doors, rain, snow or shine, during laboratory period.

Suggested:
1. Three-ring binder(s) in which to insert lecture and lab handouts, and notes taken on looseleaf paper.

Objectives: At the successful completion of BIOL 325, a student should be able to
1. list key characteristics of and recognize major vascular plant taxa, as well as selected genera;
2. list characteristics of larger groups such as vascular plants, lycophytes, ferns, gymnosperms, angiosperms, dicots, and monocots; to be able to draw a cladogram showing how these larger groups are related to one another;
3. use and construct dichotomous keys to plant taxa;
4. use a hand lens and a dissecting scope to dissect and make observations of plant parts;
5. outline the basic hierarchy of taxonomic ranking;
6. list and explain the fundamental rules of botanical nomenclature;
7. explain what herbaria are and what their functions are;
8. outline the basic tenets of cladistics and the implications of cladistic thinking for taxonomy;
9. list the types of data collected by systematists for the construction of classifications.

Grading: Final letter grades are earned on basis of percentage of total points available as follows (A = 93-100%; A- = 90<93; B+ = 87<90; B = 83<87; B- = 80<83; C+ = 77<80; C = 73<77; C- = 70<73; D+ = 67<70; D = 63<67; D- = 60<63; F = <60%).

Lecture Exam 1	50	
Lecture Exam 2	50	
Final Lecture Exam	75	
Floristic Inventory (Appendix 1)	50	
Lab quizzes / keys (may be pop quizzes)		50
Lab Final (cumulative)	50	
Total points possible	325	

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.

Readings: Will be announced in class. You are responsible for all content in the assigned readings.

Attendance: Attendance of laboratories and field trip(s) is required.

Attendance of lectures is optional, but you are responsible for all information discussed or homework assigned in class.

Missed lecture exams may be made up as an essay exam with a valid excuse (doctor's note or proof of family emergency).

There will be no make-ups for missed lab quizzes

Honesty: No cheating on tests, plagiarism, or cut-&-pasting from electronic sources on any assignment.

Lecture Schedule

Lecture Topic		**Special Comments / Your Notes**
Week 1:	Aug 29 & 31 — Introduction Introduction	
Week 2:	Sep 05 & 07 — The Code The Code	
Week 3:	Sep 12 & 14 — The Code The Code	
Week 4:	Sep 19 & 21 — Overview of Plant Taxa Overview of Plant Taxa	
Week 5:	Sep 26 & 28 — Overview of Plant Taxa Overview of Plant Taxa	
Week 6:	Oct 03 & 05 — Overview of Plant Taxa **Exam 1**	
Week 7:	Oct 10 & 12 — History of Plant Systematics History of Plant Systematics	
Week 8:	Oct 17 & 19 — History of Plant Systematics History of Plant Systematics	
Week 9:	Oct 24 & 26 — History of Plant Systematics Cladistics	
Week 10:	Oct 31 & Nov 02 — Cladistics Cladistics	Floristic Inventory Due Nov 02
Week 11:	Nov 07 & 09 — Cladistics **Exam 2**	
Week 12:	Nov 14 & 16 — Molecular Systematics Case Studies Molecular Systematics Case Studies	
Week 13:	Nov 21 & 23 — T-day Recess T-day Recess	
Week 14:	Nov 28 & 30 — PA Floristics PA Floristics	
Week 15:	Dec 05 & 07 — Species & Speciation Species & Speciation	
Week 16:	Dec 13 — Final Exam, Thursday, 12:30-2:30	