

BIOL 325 & 625 – Plant Systematics  
Fall 2006

**Instructor** Dr. Chris Hardy                      Tel: 871-2312  
Office: Roddy 271-A  
Office Hours: Tue & Thu 9-11, Fri 10-11

- Required**
1. Rhoads and Block. 2000. *Plants of Pennsylvania*. University of Pennsylvania Press.
  2. Hand lens (10x or greater).
  3. Notebook for notes and drawings in lab.
  4. Ca. \$5 for Longwood Gardens fieldtrip.

**Schedule**

Date	Lecture	Lab
Aug 28 & 31	Plant Systematics	always dress for outdoors
Sep 06	Overview of Plant Taxa Covered in Course	No Lab
Sep 11 & 13	Taxonomy and the Botanical Code of Nomenclature	
Sep 18 & 20	PA Natural History	<a href="#">quiz</a>
Sep 25 & 27	PA Natural History	
Oct 02 & 04	Patterns of Plant Species-richness	<a href="#">quiz</a>
Oct 09 & 11	Species & Speciation *****Exam 1 (Oct 11)*****	
Oct 18	Species & Speciation	No Lab
Oct 23 & 25	History of Plant Systematics	
Oct 30 & Nov 01	Cladistics Primer & Vascular Plant Phylogeny	<a href="#">quiz</a>
Nov 06 & 08	Cladistics Primer & Vascular Plant Phylogeny *****Exam 2 (Nov 08)*****	
Nov 13 & 15	Systematics of Plant Domestication	<a href="#">quiz</a>
Nov 20	Systematics of Plant Domestication	
Nov 27 & 29	Current Topics in Systematics- TBA	<a href="#">quiz</a>
Dec 04 & 06	Current Topics in Systematics- TBA	
Dec 11	Current Topics in Systematics- TBA	<a href="#">Lab Final</a>
Dec *13*	** <b>(Final Exam; Wed. Dec 13, 10:15-12:15pm)</b> **	No Lab

- Objectives** At the successful completion of Biol 325 & 625, a student should be able to
1. list key characteristics of and recognize vascular plant taxa listed separately.
  2. list characteristics of larger groups such as vascular plants, lycophytes, gymnosperms, angiosperms, dicots, monocots, families. To sketch a simple cladogram showing how these larger groups are related to one another.
  3. use and construct dichotomous keys to plant taxa.
  4. use dissecting scopes to dissect and make observations of plant parts.
  5. outline the basic hierarchy of taxonomic rankings.
  6. explain what a scientific name is, why there is only one valid scientific name for each taxon, why names sometimes change, what a nomenclatural type is and why types are important for taxonomy.
  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- = 90-92; 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 (Wed, Oct 11)	50
Lecture Exam 2 (Wed, Nov 08)	50
Final Lecture Exam (Wed, Dec 13)	75
Campus Tree Report (due Nov 01 in lecture)	20
Taxon Report (due Dec 04 in lecture)	35
Lab quizzes(on previous 2 weeks' material)	50
<u>Lab Final Exam (Mon, Dec 11)</u>	<u>50</u>
Total points possible	330

**Graduate Students** (Biol 625) You have the point system above, plus an additional 30 points for an additional project. Please see me for that assignment.

**Tree Report** Details TBA. However, due date is **Nov 01** in lecture.

**Taxon Report** Details TBA. However, due date is **Dec 04** in lecture.

**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 of field trip(s) required.  
Attendance of classes is not required. However, exams and quizzes shall not be made up.

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