Biology of Horticulture BIOL 4010 Spring 2011

Instructor: Dr. Emily Cantonwine

 Lecture
 9:00-9:50 (BC 2022)

 Lab
 11:00-1:50 (BC 2040)

 Office Hours
 M 2:30-4, W 2:30-4, F 10-11:30, or by appointment

<u>Course Description:</u> Introduction to the biological principles and practices of propagating and growing plants.

<u>Course Objectives (Educational Outcomes)</u>: By the end of the semester, students will be able to

- start and maintain plants in a greenhouse (GEO 5; BEO 5)
- identify important horticultural plants and plant families (GEO 5; BEO 2,5)
- identify structural components of horticultural plants (GEO 5; BEO 3,5)
- explain how environmental factors affect plant growth (GEO 5; BEO 5)
- explain the biological principles behind the manipulation of plant growth for aesthetic and economic purposes (GEO 5; BEO 5)
- explain how plants, insects, and pathogens damage plants or affect plant value (GEO 5; BEO 2,5)
- present complex biological information in report, poster, and video-log format (GEO 3,4,7; BEO 1,5)

<u>Required Text:</u> Preece, J.E. & Read, P. E. 2005. The Biology of Horticulture, an introductory textbook. Second edition. John Wiley & Sons, Inc.

## Students are required to bring the syllabus & lecture notes to lecture periods; The Biology of Horticulture text is recommended.

Students are required to bring the syllabus & lecture notes to each laboratory. The Biology of Horticulture text may be required occasionally.

## Important information:

- A grade of C or higher is required in this course to count towards biology degree.
- Midterm, March 3, is the last day to withdraw from the course.
- If you have need for special arrangements to meet the requirements of this course, please contact the Access Office for Students with Disabilities in Nevins Hall, 245-2498. Please discuss this need with me as soon as possible.

Assessment # points each points total

## Assessments:

- *Exams:* There are 5 exams and a cumulative final exam, each worth 100 points. <u>Material on the exams will</u> <u>include both lecture and laboratory material</u>. Students may drop their lowest exam score (or elect to not take the final). Students may not take exams late, and may not take exams early unless there is a documented university or religious excuse. In case of illness or family emergency, the exam you miss is the exam that will be dropped.
- *Poster:* Each student will research a horticultural topic

## Tentative Schedule:

Date	Lecture Topics	Reading Assignments (Chapters)	Lab
1/10	What are the features of horticultural	1,2	Service projects, Poster topics
1/17	plants?	3	MLK Day no lab
1/24	(Introduction, Classification, Plant structure)	3	Anatomy Lab
1/31	EXAM 1 - chapters 1-3 (1/31)	3	Begin plant propagation experiment (Lab Report - Due 3/7)
2/7	How is plant growth manipulated?	11	grafting, pruning, repotting, mulching
2/14		12	Tree planting; data collection
2/21	(Hormones, Chemical control of growth, Propagation, Pruning)	13	Service Project
2/28	EXAM 2 - chapters 11-14 (2/28)	14	Start plants for flower pots, develop planting plan
3/7	How does the ambient environment		

affect plant growth?