

Reedley College
ENVIRONMENTAL HORTICULTURE
EH 43-54170 – Plant Propagation/Production
Spring, 2012

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Landscape Horticulture, Room 1

COURSE DESCRIPTION

- **Advisories:** Eligible for English 125, English 126, and Math 101
- **Spring Semester:** 2 lecture and 3 lab hours per week. 3 Units
Lecture Tuesday 09:00AM - 10:50AM,
Lab Thursday 09:00AM - 11:50AM
- **Catalog Description:**

Plant propagation and production practices with emphasis on nursery operations including sexual and asexual reproduction, planting, transplanting, fertilizing, plant pest and disease control, structures and site layout. Preparation and use of propagating and planting mediums. Use and maintenance of common tools and equipment. Regulations pertaining to plant production.

COURSE MATERIALS

- **Required Textbooks:** **Hartman and Kester's Plant Propagation**
Principles and Practices, 8th Edition 2011
- Recommended materials but not required:
- New Sunset Western Garden Book, Editors of Sunset
- **Materials:** Three-ring binder, pencils, pens,

Gloves, hand pruners (suggested)
Work clothing; this is a hands-on class. Appropriate footwear (closed toe shoes)

ATTENDANCE

- Attendance is required since most of the learning occurs in a lecture/laboratory situation.
- Students are responsible for obtaining notes/information missed due to an absence from the instructor or another student.
- Please notify instructor by email or phone message if you know in advance that you will be absent from class.
- College policy dictates that an instructor should drop a student with two consecutive weeks of unexcused absences. Three tardies equals one absence.
- At the end of the 9th week of instruction, no withdrawals are permitted and the student must receive a letter grade for the class. **The last day to drop a class is Friday March 9th**

Campus Policies: Refer to RC Schedule of Classes page 97 for more information

Behavioral Standards: All students are expected to act in a mature, responsible manner that respects the rights of all other students, the instructor, and any guest presenters that may participate in the class. All cell phones and other electronic gadgets that may cause distraction are to be turned "off" during lecture and lab sessions

Smoking: Out of respect and for the health of others and plants, there will be NO SMOKING in or within 20 feet of buildings

Academic Dishonesty: Plagiarism and cheating are serious offenses and may be punished by failure on exam, paper or project; failure in course; and or expulsion from the school For more information refer to the "Academic Dishonesty" policy in the College Catalog.

ADA - Need for Assistance: If you have any condition, such as a physical or learning disability, which will make it difficult for you to carry out the work as I have outlined it, or which will require academic accommodations, please notify me as soon as possible.

METHODS FOR MEASURING STUDENT ACHIEVEMENT & DETERMINE GRADES:

- **Writing Assignments** 20%
Laboratory Reports, Reading Reports, Written Homework
- **Skill Demonstrations/Problem-solving** 20%
Class Performance, Field Work, Homework Problems
- **Examinations** 50%
Exams will be based on lectures, laboratory activities, class discussions and text readings as assigned and will be composed of multiple choice and short answer questions
- **Participation in daily activities** 10%
- **Grades** are determined through a numerical point system:
A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = 59% or less

FINAL EXAM Tuesday, May 15, 2012

Blackboard Postings: Course materials and announcements will be posted to Blackboard through the semester. Blackboard can be accessed via: <http://blackboard.reedleycollege.edu> and it is your responsibility to check frequently.

I. COURSE OUTCOMES

Upon completion of this course, students will be able to:

- A. Demonstrate the ability to grow plants from propagation to salable size including:
- B. Practicing the procedures of plant propagation including seed, cuttings, budding, grafting, layering, division
- C. Determining the proper timing for the various propagation and production techniques appropriate to the plant species and propagation method

II. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

In the process of completing this course, students will:

- A. Explain the effect of temperature, water, humidity, and fertility on plant growth
- B. Describe the principles of plant reproduction, sexual and asexual
- C. Exhibit the personal skills (attitude, work habits, etc.) For successful employment in the wholesale and retail nursery business
- D. Discuss control procedures for common garden, landscape, and greenhouse pests
- E. Demonstrate proper merchandising techniques
- F. Identify, use, and maintain common propagation, nursery and landscape tools and equipment
- G. Plan and design a nursery layout; construct nursery facilities
- H. Develop and present a propagation method demonstration
- I. Describe the various types of wholesale plant production industries
- J. Students identify, organize, plan and allocate resources
- K. Interpersonal skills
- L. Develop a group presentation on a propagation method
- M. In the laboratory setting, students work cooperatively in meeting various objectives
- N. Acquires and uses information
- O. Identify common plants of landscape value in the area
- P. Discuss control procedures for common garden, landscape, and greenhouse pests
- Q. Understands complex interrelationships
- R. Describe the principles of plant reproduction, sexual and asexual
- S. Describe and differentiate the processes of osmosis, transpiration, respiration, photosynthesis
- T. Explain the effect of temperature, water, humidity, and fertility on plant growth
- U. Works with a variety of technologies
- V. Practice the procedures of plant propagation including seed, cuttings, budding, layering, grafting, division
- W. Formulate planting and propagating media
- X. Measure and mix fertilizers and apply them

III. COURSE OUTLINE

- Wholesale Plant Production Operations, Retail Nursery Operations
- Introduction to Plant Environmental Projects
- General Aspects of Plant Propagation
- Use and Maintenance of Common Propagation and Nursery Tools and Equipment
- Sexual Propagation
- Asexual Propagation
- Cultural Considerations of Nursery Stock Production, Plant Patents
- Propagation Structures
- Salesmanship and Selling

SCHEDULE*

January	10/12	Week 1	Introduction; Tour facilities, Asexual Propagation; Division
	17/19	Week 2	Safety; Plant ID; division, collection of plants; Chapter 1
	24/26	Week 3	Grafting, Budding, Ch. 11&12; Field Trip, L. E. Cooke Co. Jan 26th
	31/2	Week 4	Chapter 2; Group project: Growing specific species and cultivars of plants by group; research individual plants
February	7/9	Week 5	<u>Quiz</u> ; Sexual Propagation; methods, flower and vegetable seed, growing mediums, Chapter 3-6
	14/16	Week 6	Soil preparation and mixing; Field Trip: NorCal Horticultural Trade Show, San Mateo, Feb 16; Ch 7-10
	21/23	Week 7	Asexual Propagation: Selecting and transplanting;
	28/1	Week 8	Sexual Propagation, transplanting seedlings; Plant Patent laws ; Ch. 14, 15
March	6/8	Week 9	Plant ID, materials ID; Salesmanship, presentation
	13/15	Week 10	<u>Midterm Exam</u> ; Nursery Design Project
	20/22	Week 11	Plant Sale Prep, labeling, identification
	27/29	Week 12	Prep for Plant sale, Review salesmanship, Retail procedures, Plant sale
April	2-6		Spring Break
	10/12	Week 13	Garden Center Operations; Wholesale Nursery Operations
	17/19	Week 14	Greenhouse and Mist house, Lath house, maintenance and organization; Field Trip/Guest Speaker TBA
	24/26	Week 15	Plant Sale: Preparation and Planning
May	1/3	Week 16	Review for final; Mother's Day Plant sale
	8/10	Week 17	Nursery Design Project – Student Presentations
May	15	Week 18	<u>FINAL EXAM – Tuesday, May 15</u>

***Due to the seasonal nature of horticulture, the schedule may change throughout the semester, to take full advantage of learning opportunities that present themselves.**