

PLS 440 Plant Propagation - 2002

Dr. Robert Geneve

Room N-308E Agricultural Science Center North

Phone 257-8610

Lectures T, R 11-12 Lab T 1-4

Required Text:

Hartmann and Kester's Plant Propagation: Principles and Practices, 7th ed. - Hartmann, Kester, Davies and Geneve

Digital plant propagation CD – R. Geneve

Course Objectives:

Develop a working understanding of the principles and practices of plant propagation. This will involve: 1) exposure to the technical skills utilized by commercial plant propagators; 2) ability to retrieve and integrate new knowledge for problem solving; 3) conduct and interpret propagation experiments; 4) clearly express the results of library or lab research in both written and oral forms.

Course evaluation:

3 exams	300 points	
1 final exam	150 points	1000 - 900 pts = A
1 Poster and paper presentation	175 points	899 - 800 pts = B
2 lab reports	200 points	799 - 700 pts = C
1 library exercise	25 points	699 - 600 pts = D
15 terms and definitions sheets	100 points	<600 pts = E
Attendance /participation	50 points	
	Total	1000 points
1 optional paper	50 points	

Exams:

There will be three one hour exams and a comprehensive final. The exams will cover lecture material and appropriate lab material (worth 100 points each). The final exam will be comprehensive and cover both lecture and labs (worth 150 points).

Presentation:

There will be one poster prepared and presented as a **three person group** worth 75 points; prior to the presentation each student will submit an **individual paper** on the poster subject. It is worth 100 points.

Lab reports:

You will be required to take good lab notes in order to study for the exams. In addition, two labs will be identified where you will be required to submit a formal lab report. The format for each report will be discussed in lab. Each report is worth 100 points. On several occasions, students will work in groups to complete labs. However, all assignments must be individual work.

Library:

The first lab will be a library lab. The exercise sheet from this lab will be worth 25 points.

Terms and definitions:

For each section, a set of terms will be provided that is essential for understanding plant propagation. Use your textbook and digital glossary to provide definitions for these terms. This will also serve as a study guide for the exams. **Terms will be due on Tuesday of each week** (except exam weeks) and total 100 points.

Paper:

One small paper will be **optional** from each student. The paper will require that you search primary information from the library on specific topics. Papers will cover a topic on seeds, cuttings or tissue culture. Paper is worth 50 points.

Attendance and participation:

Attendance in lecture and lab is expected. Missing class will result in less attendance points. Participation will be evaluated by lab assignments. This section is worth 50 points.

PLS 440 - Plant Propagation

SYLLABUS

Lectures

Dates	Topics	Reading assignments
January 10	Introduction	Chapters 1-3
January 15 - February 5	Seed propagation	Chapters 4-8
February 7 - March 7	Cutting propagation	Chapters 9-10; 16
March 11 - March 15	Spring break	
March 19 - March 28	Grafting and budding	Chapters 11-13
April 2 - April 11	Tissue culture	Chapters 17-18
April 16 - April 25	Layering, bulbs, corms, etc.	Chapters 14-15

Labs

1. Seeds (Jan 17)
2. Seed technology (Jan 24)
3. Seed lab - germination (Jan 31)
(lab write-up due March 7)
4. Seed Lab - dormancy (Feb 7)
5. Types of cuttings - soft and hardwoods
(Feb 14)
6. Types of cuttings - leaf and root
(Feb 21)
7. Auxin and mum lab (Feb 28)
(lab write-up due March 28)
8. Poster preparation (Mar 7)
9. Grafting apples (Mar 21)
10. Grafting and budding (Mar 28)
11. Micropropagation (April 4)
12. Poster presentation (April 11)
13. Division (April 18)
14. Field trip (Apr 25)

Exams

February 14	Seeds
March 21	Cuttings
April 4	Grafting
April 30	Final - 10:30 AM

Grading Policy :

Late assignments will be penalized at 10 points per day and will not be accepted for grading after 5 days. Terms and definitions are timely assignments and must be turned in each Tuesday to receive a grade.

Labs cannot be rescheduled and are very important to the course. You must make every attempt to attend labs. Only valid University excuses will be acceptable. Failure to attend labs will reduce your attendance grade and reduce your lab report by one letter grade.