Plant Propagation – Winter 2019 - Syllabus

Linn Benton Community College – Agricultural Sciences Department

Course Numbers: HT8.137 - CRN: 31074
Course Credits: 4 credits
Meeting Time & Room: Lectures: Tue /Thu - 8:30 - 9:50 in WOH 122
Lab: Tue 1:00-3:50 - **WOH 217** or Greenhouse

Instructor
Dr. Stefan Seiter - WOH 124, LBCC - Albany, Main Campus
Phone (voice mail): (541) 917-4765 - E-mail address: stefan.seiter@linnbenton.edu
Office Hours: Tuesday and Thursday 10:00-10:50

Course Description
Introduction to the principles, techniques, and facilities used to propagate ornamental plants. Topics include seed propagation, cuttings, grafting, budding, division, layering, and tissue culture. .

Course Materials
Required Text: Plant Propagation by Alan Toogood
Optional Text: Plant Propagation: Principles and Practices, Hartman and Kester
Online: Lecture outlines, handouts and weekly readings are available in the Moodle course management system. Students have to be enrolled in Moodle http://elearning.linnbenton.edu.

Course Outcomes
The successful completion of this course will enable you to:

- Demonstrate sexual and asexual propagation techniques for plants commonly grown in the Pacific Northwest
- Discuss the biological principles of plant propagation.
- Manipulate the propagation environment for optimum plant establishment.

Waitlist Policy
If the class is full, registered students not attending the first session without advance notice to the instructor will be dropped from the class and students from the waitlist will take their spots. Waitlisted students must attend class and get instructor approval to become registered students.

Course Evaluation

You will be evaluated through three exams, lab reports and a final project. You have to let the instructor know (using email, phone or personal message) before the class if you are unable to attend an exam day or if you are late. A make-up exam will be made available only to students who follow this procedure. Lab reports require your presence can not be made up. Keep track of your grades in exams and assignments.

Grades

The grading system for the course is "A-F". Final grades will be based on the percentage of total points earned. A = 90% and above; B = 80 to 89%; C = 70 to 79%; D = 60 to 69%; F = 59% and below

Exams (3 x 15%)	> 45 %
Lab Attendance (10 x 3.5%)	> 35 %*
Portfolio Project	> 20 %

*Missing more than 2 labs will result in 0% in the overall lab grade.

Student Integrity:

All students are expected to take tests, write papers, and conduct projects with integrity, not jeopardizing their own honesty nor that of other students.

Disabilities Services:

You should meet with your instructor during the first week of class

- if you have a documented disability and need accommodations,
- your instructor needs to know medical information about you, or
- you need special arrangements in the event of an emergency.

If you believe you may need accommodation services please contact Center for Accessibility Resources, 541-917-4789. If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources Online Services web page every term in order to receive accommodations.

Classroom Guidelines

This is your course. You will learn the most if you actively participate in classroom discussions and share your experience and questions. At the same time, respect other students' desire to learn while listening attentively and appreciating other points of view.

- Learn the names of your classmates. Help one another (not during tests).
- Turn off your cell phones before you enter the classroom
- This is your classroom. Take responsibility for it by straightening up tables and chairs when you leave. Clean up the lab and put away equipment at the end of class. Pick up and remove litter.
- Arrive promptly before class begins. If late, enter quietly.
- Please remove hats in the classroom. Head coverings worn for religious or medical reasons are acceptable.
- No food or drink is allowed in the classroom during class time. No tobacco products may be used in the classroom at any time.
- Know basic safety rules and report any accidents, injuries, or problems immediately.
- Do not come to class when you are ill and are likely to infect others.
- Minor children will not be allowed in the classroom or lab areas for safety reasons. Check the LBCC family resource center for day care options
- Security is a primary concern on campus. Be responsible for your things and considerate of other students' belongings.
- Let faculty or staff know if you are experiencing academic difficulties. Assistance is available. The LBCC Learning Center provides students with academic support and a comfortable place to study. For available services go to https://www.linnbenton.edu/learning-center
- Be aware of Student Rights and Responsibilities. For more information go to the LBCC website.
- Be aware of inclement weather policy of the college during the winter term.

PLANT PROPAGATION - Tentative Course Schedule

Week	Tuesday	Tuesday Lab	Thursday	Reading Assignments
1 01/08	Course Intro History of Propag.	Propagation Media & Cuttings	Propagation Media & Structures	Growing Media for GH Production / GH Structures
2 01/15	Plant Life Cycles Seed Structure	Seed Sowing	Seed Germination & Dormancy	Starting Plants from Seed / Propagating Plants from Seed
3 01/22	Plant Genetics Hybrids/Cultivar	TBA	Seed testing **Draft Project Description**	Hybrids and Heirlooms / Grass Seed Production in Oregon
4 01/29	Intro to Asexual Propagation. & Grafting	Grafting and budding	**Exam I**	Grafting and Budding/ Grafting and Budding of Nursery Crops
5 02/05	Budding	Layering	Layering	Air Layering for Diff. to Root Plants/ Layering Instr.for Home Gardeners
6 02/12	Propagation of Specialized Stems	Specialized Stems & Division	Specialized Stems & Division	Propagation by Division Bulbs and More
7 02/19	**Exam II**	Plant Care & Seeding II	Plant Growth Regulators & Division	Plant Hormones and Growth Regulators / Selecting and Using Plant Growth Regulators for …
8 02/26	Cuttings	TBA	Care/Trmt of Cuttings	Herb.Plant Cuttings / Stem Cuttings of Shrubs, Trees
9 03/05	Tissue Culture	Field Trip	**Exam III**	Care and Handling of Micropropagated Plants
10 03/12	Nursery Production	Field Trip	Seeding III	
Finals Week	**Project Presentations - March 19 7:30-9:20**			

Dates and topics may change depending on the progress toward learning outcomes and needs of students and the instructor.

Plant Propagation - Instructions for Project Display and Report

General Instructions

Each class member will present an individual term project during the lab period or the last day of classes in week 10 or week 11 (finals week). The session will also be open to other students, faculty and staff.

I. Each student will select a topic and prepare:

a)Table-top visual display

b) Short 2 page write-up about the topic. The write-up is due at the time of the presentation.

II. The display should identify each student by name. It may contain pictures, diagrams, actual plant materials or whatever you think might help explain your topic to someone who looks at your display.

III. Each student should choose a topic of his/her selection. Please choose a topic in which you might have some specific interest. Suggestions are given below. Discuss the project and get it approved by the instructor no later than **January 24, 2019**.

IV. Try to pick a topic and/or plant which we have not talked directly about in class. Some suggestions might include:

- How to propagate a specific type of plant (cacti, aquatic plants, conifers, etc.)
- How to propagate a specific plant species (such as a rose, apple tree, orchid, etc.)
- How environmental factors such as light, water, nutrients, media affects plant propagation
- Show the best ways to successfully germinate specific kinds of seeds.

V. The project may be conducted in two general forms:

a. General research using various publications and personal communication with specialists.
b. Experiment using proper scientific methods including control treatments and replications.

VI. During the class period, you will be asked to discuss your project with fellow students, the instructor and others who join the session. Fellow students and the instructor will evaluate your project and your knowledge about it. This project accounts for 15 % of your final grade.

VII. Your written report should be no longer than 2 pages typed. It should review the steps you went through in preparing your project, e.g., where you got your information. It should also

include your information references in proper citation format. Upload your report to the Project Assignment Folder in Moddle before your presentation on **March 14, 2019.**

Timeline/Due dates:

January 24: Submit the title and a short description of your project using the "Draft Project Description" assignment folder in Moodle (submit the text file in a common word processing or pdf format).

March 14: Use the assignment folder in Moodle to submit your written project report.