HORT A183: PLANT PROPAGATION

Item	Value
Curriculum Committee Approval Date	11/13/2024
Top Code	010930 - Nursery Technology
Units	3 Total Units
Hours	90 Total Hours (Lecture Hours 36; Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

Principles and practice of propagation of horticultural plants. Propagation from seed, cuttings, layering, and grafting. Transfer Credit: CSU; UC.

Course Level Student Learning Outcome(s)

1. Determine the method of propagation by looking at an ornamental plant.
2. Demonstrate how to sow seeds both outdoors and indoors, in a greenhouse, furthermore raise the resulting seedlings to a useable size.
3. Identify the most appropriate method to vegetatively propagate ornamental plants.

Course Objectives

- 1. Determine when to use sexual propagation and when to use vegetative propagation to propagate ornamental plants
- 2. Design and describe the structures and functions of flowers and seeds
- 3. Design and describe the principles and practice of hybridizing.
- 4. Demonstrate how to collect, handle and sow seeds of ornamental plants.
- 5. Learn how to vegetatively propagate ornamental plants

Lecture Content

Basic types of plant propagation Propagation structures Media, containers Sexual reproduction: scientific basis, flower structure, pollination, fertilization, hybridization. Seeds, seed collection, storage, testing, preplant treatments, seed sowing, germination, apomixes, handling seedlings. Asexual reproduction, scientific basis, cuttings hormones and vegetative propagation, grafting, layering, propagating organs of perennation. Special methods of propagation. Ferns their allies, micropropagation

Lab Content

Basic types of plant propagation Propagation structures Media, containers Sexual reproduction: scientific basis, flower structure, pollination, fertilization, hybridization. Seeds, seed collection, storage, testing, preplant treatments, seed sowing, germination, apomixes, handling seedlings. Asexual reproduction, scientific basis, cuttings hormones and vegetative propagation, grafting, layering, propagating organs of perennation. Special methods of propagation. Ferns their allies, micropropagation

Method(s) of Instruction

- Lecture (02)
- Lab (04)

Instructional Techniques

Lectures illustrated with slides, Demonstrations by the instructor Interaction between students and instructor during lab sessions, before class, in office hours and by E mail.

Reading Assignments

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Writing Assignments

Students are required to produce a comprehensive diary throughout the semesterExperiment write-upsWritten final exam with essay answers

Out-of-class Assignments

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Demonstration of Critical Thinking

Evaluation of lab tasks on a weekly basisEvaluation of the results of lab tasks.Evaluation of write-ups of experiments.Evaluation of diary kept during the semesterExaminations.

Required Writing, Problem Solving, Skills Demonstration

Students are required to produce a comprehensive diary throughout the semesterExperiment write-upsWritten final exam with essay answers

Other Resources

1. Handouts to be provided and distributed by the instructor.