HORT 51 Course Outline as of Fall 2019

CATALOG INFORMATION

Dept and Nbr: HORT 51 Title: INTRO HORTICULTURE
Full Title: Introduction to Horticulture
Last Reviewed: 1/28/2019

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	8	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade or P/NP
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
An introduction to environmental horticulture with an emphasis on nursery operations, landscaping, turf management, and floral industries. Topics include: basic botany; plant identification and classification; cultural practices; propagation; structures and layout; pest management; planting; container gardening and houseplants; landscape design; floral design; turfgrass installation and care, and survey of career opportunities in the industry.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100; AND CS 5 or proficiency in basic productivity software including word processing, spreadsheet, and presentation software

Limits on Enrollment:

Schedule of Classes Information:
Description: An introduction to environmental horticulture with an emphasis on nursery operations, landscaping, turf management, and floral industries. Topics include: basic botany; plant identification and classification; cultural practices; propagation; structures and layout; pest

management; planting; container gardening and houseplants; landscape design; floral design; turfgrass installation and care, and survey of career opportunities in the industry. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100; AND CS 5 or proficiency in basic productivity software including word processing, spreadsheet, and presentation software
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**			Effective:	Inactive:
CSU GE:	**Transfer Area**			Effective:	Inactive:
IGETC:	**Transfer Area**			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Fall 2018	Inactive:	
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. List and describe the major structures of plants and their functions
2. Identify various horticultural occupations and their employment requirements
3. Demonstrate safe use of common tools and equipment used for plant propagation and landscaping

Objectives:
Upon successful completion of this course the student will be able to:
1. Name and explain how the major markets of the environmental horticulture industry function within Sonoma County and California
2. List ways that the field of Environmental Horticulture contributes to a more sustainable environment
3. Demonstrate safe use of common tools and equipment used for plant propagation and landscaping
4. List and describe the major structures of plants and their functions
5. Formulate soils and container media following a given recipe
6. Propagate plants utilizing both sexual and asexual methods
7. Explain the requirements needed for healthy plant growth, including watering, fertilization, and pest control
8. Explain fertilizer analysis, ratios, and applications following label directions
9. Compare the various types of horticultural structures used for growing crops
10. Describe and compare various horticulture occupations, their employment requirements, and their basic business structure and operations

11. Demonstrate how to plant and care for given horticultural crops
12. Demonstrate an understanding of basic plant identification and nomenclature
13. Perform common turf and landscape maintenance practices

Topics and Scope:

I. The Environmental Horticulture Industry in Sonoma County and California
   A. History
   B. Current scope
   C. Future growth/employment
II. Awareness of Environmental Issues and Sustainable Solutions
   A. Waste
   B. Water
   C. Fertilizers
   D. Pesticides
III. Horticultural Occupations and Their Employment Requirements
   A. Nursery
   B. Landscape
   C. Turf
   D. Floral design
   E. Education
   F. Public service
IV. Tools, Equipment, and Safety Practices
   A. Use of tools, specialized equipment, and nomenclature
   B. Safety in handling equipment
   C. Safety in handling pesticides
V. Plant Structures and Functions
   A. Stems
   B. Leaves
   C. Flowers
   D. Fruit/Seeds
   E. Roots
VI. Soils and Container Media
   A. Types of soils
   B. Soil reactions
   C. Amending soils
VII. Plant Propagation
   A. Seeds
   B. Cuttings
VIII. Requirements of Plant Growth
   A. Light
   B. Air
   C. Water
   D. Mineral
   E. Anchorage
IX. Irrigation and Fertilizing
   A. Plant needs
   B. Deficiency symptoms
   C. Methods of application/techniques
   D. Application Rates
   E. Fertilizer schedules
X. Pest and Disease Overview

A. Pests/disease identification
B. Damage assessment
C. Control measures

XI. Horticultural Structures
A. General layout
B. Greenhouses
C. Propagation units
D. Systems - heating/cooling, irrigation/mist

XII. Environmental Horticulture Business Types
A. Retail nursery and garden centers
B. Wholesale production nursery
C. Landscape contractor
D. Landscape designer/Landscape architect
E. Landscape maintenance/gardening company
F. Flower shop
G. Interiorscape company
H. Arboriculture company

XIII. Nursery and Greenhouse Crops - Planting and Care
A. Planting - propagation by sexual and asexual means
B. Transplanting larger sizes
C. Pruning and maintenance of container stock

XIV. Plant Identification and Nomenclature
A. Basic plant identification, terminology, and techniques
B. Grouping of plants according to horticultural characteristics, e.g., size, rate of growth, ideal environmental
C. Shrubs, trees, ground covers, vines, annuals-perennials, house plants

XV. Common Turf and Landscape Practices
A. Lawn planting
B. General care

XVI. Basic Floral Design
A. Introduction to floristry
B. Various types of floral arrangements

All topics covered in lecture will also be covered in lab.

Assignment:

Lecture-Related Assignments:
1. Research paper on a topic related to a specific horticultural career path (3 - 5 pages)
2. Reading and homework in assigned text (20-30 pages/week)
3. Quizzes (2 - 10), mid-term, and final exam
4. May include field trips

Lab-Related Assignments:
1. Exercises and worksheets related to plant structures and functions, requirements of plant growth, irrigation and fertilization, pests and diseases, horticultural structures, and horticultural business types
2. In-class exercises requiring demonstration of plant identification and nomenclature, plant propagation, and safe and appropriate use of landscape tools and equipment

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Homework, research paper	Writing 10 - 20%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Exercises and worksheets: plant structures and functions, requirements of plant growth, irrigation and fertilization, pests and diseases, horticultural structures, and horticultural business types	Problem solving 10 - 20%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

In-class exercises requiring demonstration of: plant identification and nomenclature, plant propagation, and safe and appropriate use of landscape tools and equipment	Skill Demonstrations 10 - 30%

Exams: All forms of formal testing, other than skill performance exams.

Midterm, quizzes and final exam	Exams 30 - 50%

Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation, including field trip	Other Category 0 - 20%

Representative Textbooks and Materials:
Principles of Horticulture. 6th ed. Adams, Charles and Early, Mike. Routledge. 2011 (classic)
Plant Science: Growth, Development, and Utilization of Cultivated Plants. 5th ed. McMahon, Margaret and Kofranek, Anton and Rubatzky, Vincent. Pearson. 2011 (classic)
Practical Horticulture. 7th ed. Rice, Laura and Rice, Robert Jr. Pearson. 2010 (classic)