

# HORTICULTURE

## HORTICULTURE COURSES

### HORT 50 - Introduction to Horticulture

#### 3 units

Botanical nomenclature, anatomy and physiology, plant growth and development are presented. Soils, media, fertilizers, and watering methods are discussed. Preliminary Landscape design, installation and maintenance is included. Current practices of plant propagation, plant disorders and pest management, and 21st Century horticulture trends will be explored. (8 hours of lab to be scheduled on Saturdays which may include one or more field trips). 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### HORT 51 - Fall Plant Material Identification

#### 3 units

Identification of landscape and garden plants will be categorized. Growth habit, climatic adaptation, ornamental value, maintenance and care of trees, shrubs, vines will be studied, with the focus on deciduous trees and fall flowering plants. (8 hours of lab to be scheduled on Saturdays which may include one or more field trips). 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### HORT 52 - Spring Plant Material Identification

#### 3 units

Identification of landscape and garden plants will be categorized. Growth habit, climatic adaptation, ornamental value, maintenance and care of trees, shrubs, vines will be studied, with the focus on evergreen and spring flowering plants. (8 hours of lab to be scheduled on Saturdays, which may include one or more field trips). 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### HORT 53 - Landscape and Vineyard Pest and Disease Management

#### 3 units

This course covers concepts of plant pathology, entomology, and weed science which are studied in order to identify symptoms, diagnose problems, and determine methods of controlling plant diseases, insects, and weed pests. Also included is the study of the identification and biology of common vineyard, landscape and other horticultural crop pests and diseases. Materials and instruction is provided for techniques and strategies for sampling, monitoring and effective control measures, pest management strategies for insects, weeds and diseases, including bio-control, sustainable agriculture practices and integrated pest management. In addition to pesticide use, safety and compliance, there is a focus on preparation for the California State Qualified Applicators license. Students that take VWT 35 may not receive credit for HORT 53. 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter Grade

### HORT 54 - Landscape and Vineyard Soils, Fertilizers, and Irrigation

#### 3 units

This course is a study of the physical, chemical and biological properties of soil. Areas of study will include: soil classification, derivation, uses, function and management including erosion, moisture retention, structure, cultivation, organic matter and microbiology. There is a focus on vineyard and landscape planting media, soil substitutes, hydroponics, and amendments to improve and promote plant growth which includes plant

and vine nutrition, essential nutrients required for plant growth and healthy development. There will be instruction covering materials used for fertilizers which includes material origins, use, and application; and irrigation systems which will cover materials required for basic irrigation systems used in vineyard and landscape settings. Students that take VWT 12 may not receive credit for HORT 54. 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter Grade

### HORT 55 - Greenhouse, Nursery, and Garden Center Management

#### 3 units

Explores many horticulture specializations including management and operations of retail and wholesale nurseries, greenhouse growers, specialized growers of trees, shrubs, flowers, hydroponics growers, vegetable growers. Emphasis on plant propagation, propagation structures, greenhouses, nursery and garden center management and operations. Employment opportunities are in the wholesale and retail horticulture industry. 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### HORT 56 - Arboriculture/Urban Forestry

#### 3 units

Care, maintenance, planting, and pruning of trees, shrubs, and vines are discussed. Specific pruning techniques for ornamental trees, fruit trees, shrubs, roses, and other woody plants are demonstrated. Principles of urban forestry, tree preservation, health, growth characteristics, plant selection, planting, irrigation, fertilization, and damage repair are studied. (8 hours of lab to be scheduled on Saturdays, which may include one or more field trips). 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### HORT 57 - Landscape and Turfgrass Management

#### 2 units

Principles and practices of landscape and turfgrass management as practiced by horticultural professionals, landscape contractors, and grounds keepers will be covered, including preparation, installation, maintenance, renovation, irrigation, fertilization, pruning, and pest control of landscape developments for residential, commercial, public grounds, golf courses, and gardens. 27 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### HORT 58 - Landscape Construction

#### 3 units

Design, engineering, construction techniques, and installation methods for landscape site development. Cost estimating, bidding, construction materials, methods, equipment, tools, and safety for landscape plan implementation. Contracts, specifications, and legal aspects regarding landscape installation and site development. 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### HORT 59 - Landscape Design

#### 2 units

Landscape site planning and landscape architectural design for residential properties, home gardens, and small-scale use areas. Procedures and methods required in the planning and design process; site inventory, site analysis, user group analysis, preparation of site study diagrams, preliminary designs, and master site plans. Theory and principles of

design, site layout, landscape elements, and material selection. Sketching, drafting, delineation, reproduction, and coloring techniques for landscape architectural plans. Selection and use of drawing tools, materials, and equipment. 27 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### **HORT 60 - Landscape Irrigation Systems**

#### **3 units**

Planning, design, engineering, construction, and maintenance of sprinkler and drip irrigation systems for landscape, garden, and turfgrass use. Principles of hydraulics, layout, and equipment application. Irrigation system equipment, components, methods of installation and repair. Principles and techniques of water conservation and plant-water-soil relations. 45 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### **HORT 62 - California Native and Dry Landscapes**

#### **2 units**

This course examines the native plant communities of California and identifies native plants suitable for the design and installation of dry landscapes in Northern California. The focus of this course is the planning, design, installation, care, and maintenance of drought tolerant landscapes, with the goal of creating more sustainable landscapes. 27 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### **HORT 63 - Sustainable Landscape**

#### **2 units**

This course examines the impact of constructed landscapes on the postindustrial society. Natural ecosystems are studied in order to learn concepts essential to create and maintain sustainable, environmentally sound landscapes. The focus of this course is on planning, designing, installing, and maintaining of landscapes, through the use of ecologically sound construction techniques, materials, and systems. 36 hours lecture. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### **HORT 67 - Interior Plantscapes**

#### **2 units**

Identification, use, propagation, growth, environmental adaptation, ornamental value, and care of container, indoor, and house plants. 27 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### **HORT 71 - Fundamentals of Hydroponics and Aquaponics**

#### **2 units**

The ecological design and operation of urban agriculture that covers the fundamental principles of raising fish and vegetable crops in soil-less media. 27 hours lecture, 27 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass

### **HORT 73 - Computer Aided Design**

#### **3 units**

Introduction to basic techniques in computer aided design for interior and exterior design, with emphasis on user terminology and hands-on learning. How to set up drawings, dimensioning systems appropriate to architecture. Floor plans, landscapes, details, drawings and other techniques using the

computer. Students who have completed or are enrolled in INTD 40 may not receive credit. 36 hours lecture, 54 hours laboratory. Transfer: CSU.

- Credit - Degree Applicable
- Grading Option: Letter or Pass/No Pass