

HORT 54K: HORTICULTURAL PRACTICES: WEED IDENTIFICATION & ECOLOGY

Foothill College Course Outline of Record

Heading	Value
Units:	3
Hours:	3 lecture per week (36 total per quarter)
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Student Learning Outcomes

- Student shall be able to identify common horticultural weeds
- Student shall identify common control methods for selected horticultural weeds.

Description

Identification, morphology, physiology and management of common agricultural and horticultural weedy plants. Review of the impacts of common weeds on the plant production and landscape industries and their identification throughout the life cycle of the plant. Review of the role of weeds in the landscape.

Course Objectives

The student will be able to:

- Identify common weeds that impact California horticultural crops.
- Classify weeds by growth method.
- Identify the stage of growth of the weeds.
- Identify the ecology of weeds.
- Discuss IPM solution to control the weeds.
- List the recommended biological controls for the weeds.
- List the recommended chemical controls for the weeds.
- Prepare a management plan for controlling weeds in the landscape, nursery and greenhouse.

Course Content

- Impact of weeds on California horticultural crops.
 - Problems with weeds in the California nursery and greenhouse industry.
 - Problems with weeds in the California landscape.
 - Economic impacts of weeds in the horticultural field.
 - Problems with weeds in horticultural applications.
 - Weeds as an environment and vector for other pests.
 - Benefits of weeds.
- Identification of weeds.
 - Identify the stage of growth for the weeds.
 - Classify the weed as broadleaf or grass.
 - Identify the flower and seed of the weeds.
 - Recognition of the reproductive system of weeds.

- Life cycle of weeds.
- Landscape ecology of weeds.
 - Weeds as a detriment to horticulture crops.
 - Weed impacts on soil health.
 - Weed impact on nutrient availability.
 - Weeds as a host to other beneficial and detrimental organisms.
- Control of weeds.
 - IPM in weed control.
 - Weed exclusion methods.
 - Weed eradication methods.
 - Biological controls of weeds.
 - Chemical controls of weeds.
 - Weed management planning.
 - Measures to control weeds.
 - Economic implications of various weed controls.
 - Scheduling weed control methods.

Lab Content

Not applicable.

Special Facilities and/or Equipment

- Classroom with overhead projection and internet connection.
- Outdoor field lab to culture and find weeds.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

- Identification exams requiring field and photo identification of weeds.
- Written exams on cultural, identification and management issues.
- Demonstrating field identification and control of weeds.
- Collecting and displaying weeds.

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

- Reading about weed morphology, taxonomy and problems.
- Identification of various weeds and their growth habits.
- Discussion of controls of agricultural weeds.

Representative Text(s) and Other Materials

Ditomaso, Joseph M. Weed Pest Identification and Monitoring Cards. Berkeley, CA: University of California, 2013.

Although this text is older than the suggested "5 years or newer" standard, it remains a seminal text in this area of study.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- Reading assignments include reading approximately 30-50 pages per week from assigned text. Supplemental reading will be provided in hand-out form or through reference to online resources.
- Writing assignments include:
 - Topical white papers.
 - Management plan preparation.

Discipline(s)

Ornamental Horticulture