

HORT 90V: SUSTAINABLE ORGANIC GARDENING

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2024
Units:	1
Hours:	12 lecture per quarter (12 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

- Define principles of organic gardening.
- Analyze gardens to improve sustainability.

Description

Principles and practices utilized in the design, implementation, and maintenance of sustainable and organic gardens. Sustainable gardening practices that produce successful, environmentally responsible produce and crops.

Course Objectives

The student will be able to:

1. Demonstrate an understanding of the definition of sustainable organic gardening and contrast with conventional organic gardening.
2. Define the principles of organic gardening (including soil prep and amendments).
3. Demonstrate an understanding of irrigation systems, methods for installation, and sustainable materials and practices which make systems more sustainable.
4. Select the most appropriate seasonal crops and define common varieties by season and location.
5. Demonstrate knowledge of composting and mulching techniques used in the garden.
6. Manage pests, including insects, weeds, and diseases, in organic gardens.
7. Describe the rules and laws governing sustainable organic gardening.
8. Describe crop selection based on cultural diversity.

Course Content

1. Concepts of sustainable and organic gardens
 - a. Define sustainable and organic gardening
 - b. Differentiate between sustainable and traditional organic gardening
 - c. Describe principles used for sustainable gardening
2. Soil preparation, amendments, and fertilizers using sustainable, organic principles

- a. Soil testing
 - b. Soil sourcing
 - c. Sustainable organic amendments and fertilizers
 - i. Choosing appropriate fertilizers
 - ii. Proper application amounts and methods of fertilizers for sustainable crops
3. Water and irrigation methods and sustainable systems
 - a. Sustainable pipe and irrigation components
 - i. Low volume irrigation
 - ii. Garden development to minimize irrigation needs
 - b. Sustainable irrigation installation techniques and practices
 - i. Selecting appropriate irrigation method
 - ii. Identifying components necessary for a sustainable garden
 - iii. Describing installation methods for low volume irrigation
 4. Selection of crops and varieties for each season and location
 - a. Sourcing crops
 - b. Deriving crops from sustainably harvested sites
 - c. Correct seasonal selection of crops
 - i. Identifying crops based on seasonal production
 - ii. Selecting crops appropriate for a variety of seasons
 5. Organic composting and mulching methods and use
 - a. Sources of composts of mulches
 - b. On-site composts and mulches
 - c. Sustainable practices for composts and mulches
 - d. On-site composting methods
 - i. Cold composting
 - ii. Hot composting
 6. Organic, sustainable integrated pest, weed, and disease management
 - a. Contrast sustainable Integrated Pest Management (IPM) with standard practices
 - b. Rules for sustainable pest management
 - i. Exclusion
 - ii. Predators
 - iii. Cultural practices
 7. Rules and laws governing organic food and produce
 - a. Federal, state, and local regulations affecting organic gardening and produce production
 - b. Definitions of organic food production
 - c. Methods to produce crops qualified as organic
 8. Selection of crops and varieties based on cultural diversity
 - a. Heritage crops
 - b. Regional crops
 - c. International crops

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Horticultural laboratory, sustainable garden, greenhouse, compost area, and related horticultural facilities and equipment.
2. Students provide pruning shears with sheath, work boots, leather gloves, and clothing for field work.
3. When taught online, on-going access to computer with email and internet access.

Method(s) of Evaluation

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

Written exam on sustainable principles
Development of report on crop choices for regional gardens
Design of a sustainable garden

Method(s) of Instruction

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

Lecture presentations on sustainable organic gardening
Group discussions on common concerns facing organic gardeners
(pests, nutrition, maintenance, planting cycles, etc.)
Classroom demonstrations of sustainable organic gardening practices

Representative Text(s) and Other Materials

Stewart, April. Gardening: How to Mini Farm and Create a Sustainable Organic Garden, 1st ed.. 2016.

Although this text is older than five years, it is the most recent edition and still relevant to the course.

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

1. Weekly reading assignments from text, outside resources, and instructional handouts (approximately 10-20 pages of text)
2. Research and planning of individual or group creative projects

Discipline(s)

Ornamental Horticulture