HORT A100: HORTICULTURAL SCIENCE

Item	Value
Curriculum Committee Approval Date	12/08/2021
Top Code	010900 - Horticulture
Units	3 Total Units
Hours	54 Total Hours (Lecture 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
Grading Policy	Standard Letter (S), • Pass/No Pass (B)
Associate Arts Local General Education (GE)	• OC Physical/Biological Sci - AA (OB)
Associate Science Local General Education (GE)	• OCC Physical/Biological Sci-AS (OSB)
California State University General Education Breadth (CSU GE-Breadth)	• CSU B2 Life Science (B2)

Course Description

The science and culture of plants upon which man's very existence depends. The principles and practices used to grow plants for food and environmental enhancement will be emphasized. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Identify that plants are the basis of life on this planet.
2. Recognize man's relationship with the environment.
3. Demonstrate the ability to grow plants from seed and vegetatively.
4. Identify the various parts of plants and describe how they function

Course Objectives

- 1. Define and describe the importance of plants and their uses in everyday life.
- 2. Identify the scientific principles involved in plant structure, plant function and the plant environment.
- 3. Describe how these plants are propagated, grown, and utilized by man.
- 4. Define the human relationship in the biological and physical environment.
- 5. Describe the importance of plants in mans existence, will become more cognizant of the needs of an increasing world population, and related environmental issues.
- 6. Become better equipped to evaluate the consequences of mans actions with regard to mans production on the environment.

Lecture Content

The impact of horticulture The role of horticultural plants: food, fiber, shelter, fuel, soil erosion, drugs, medicines, perfumes, waxes, oils, spices. Aesthetic values of plants. Classification of horticultural plants Plant structure and physiology Plants and their environment: water, climate, temperature, light, nutrients. Managing the plant environment: soil, water and air management.. Man-made plant environments, greenhouses, growing rooms, food storage facilities, soil-less mixes. Propagation of plants: sexual, seed, vegetative propagation Biological competition: weeds, pests, diseases, chemicals and their safe use, biological controls. Horticultural geography Vegetable crops, fruit crops Ornamental plants Aesthetics of horticulture, urban planning landscape design.

Method(s) of Instruction

- Lecture (02)

Instructional Techniques

Lectures illustrated with slides, Demonstrations by the instructor Experiential activity growing food Interaction between students and instructor during lab sessions, before class, during office hours, and by Email.

Reading Assignments

Students will have 2.5 hours of assigned reading weekly

Writing Assignments

A daily journal/"scrapbook" portfolioWritten midterm and final exam with essay answers

Out-of-class Assignments

Students will have 3.5 hours of a daily grow journal which includes photographic images, drawings, objects for their garden

Demonstration of Critical Thinking

Quizzes, midterm and final examination

Required Writing, Problem Solving, Skills Demonstration

A journal/"scrapbook" portfolioWritten midterm and final exam with essay answers

Other Resources

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