

Las Positas College
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Course Outline for HORT 63

SUSTAINABLE LANDSCAPE

Effective: Fall 2009

I. CATALOG DESCRIPTION:

HORT 63 — SUSTAINABLE LANDSCAPE — 2.00 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.

2.00 Units Lecture

Grading Methods:

Letter or P/NP

Discipline:

	<u>MIN</u>
Lecture Hours:	36.00
Total Hours:	36.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

- A. identify and understand 10 principles of sustainable landscape construction;
- B. assemble a plant palette with 40 plants suitable for low-maintenance landscaping;
- C. prepare a design plan for a bio-swale or bio-retention basin;
- D. read, understand, and evaluate landscape specifications, regarding design elements of sustainable construction;
- E. prepare and implement a sustainable landscape maintenance program;
- F. use information in this course to make environmentally sound decisions, regarding landscape planning, design, installation, and maintenance.

V. CONTENT:

- A. Keeping healthy sites healthy
- B. Healing injured sites
- C. Using living flexible materials
- D. Water conservation and wetland protection
- E. Use of creative alternates in paving materials
- F. The origin and fate of materials
- G. Knowing the costs of energy over time.
- H. Understanding light and darkness in the landscape.
 - I. Mitigation of noise pollution.
- J. The hazards and impacts of landscape materials.
- K. Sustainable landscape maintenance practices.

VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Discussion** -
- C. Hand out materials.
- D. Media presentations and examples.
- E. **Field Trips** - to study the use of sustainable landscaping techniques and plant materials.

VII. TYPICAL ASSIGNMENTS:

- A. Develop a list of plants useful in sustainable landscapes.
- B. Identify and assemble the components of a drip or micro-irrigation system.
- C. Prepare a preliminary plan for the installation of a bio-retention swale.
- D. Prepare a recycling plan for a typical landscaped facility.

VIII. EVALUATION:

- A. **Methods**

B. Frequency

1. 6 quizzes, once every 2 or 3 classes
2. 2 written exams, 1/3 and 2/3 through the course
3. A term project, due near the end of the course
4. A final exam at the end of the course

IX. TYPICAL TEXTS:

1. Thompson and Sorvig *Sustainable Landscape Construction.*, Island Press, 2000.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Other publications downloaded from various web sites, such as ANR horticultural publications from the UC COOP EXTENSION.