

CATALOG INFORMATION

Dept and Nbr: HORT 189

Title: LNDSCP DRAINAGE BASICS

Full Title: Landscape Drainage Basics

Last Reviewed: 10/24/2011

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.50	Lecture Scheduled	3.00	8	Lecture Scheduled	24.00
Minimum	1.50	Lab Scheduled	0	8	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	24.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 48.00

Total Student Learning Hours: 72.00

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

Catalog Description:

This course covers common grading, drainage, and erosion control related to residential landscape sites. Discussion includes surface and subsurface systems as well as the basics of residential erosion control methods.

Prerequisites/Corequisites:

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:

Description: This course covers common grading, drainage, and erosion control related to residential landscape sites. Discussion includes surface and subsurface systems and the basics of residential erosion control methods. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
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<b>CSU Transfer:</b>	Effective:	Inactive:
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<b>UC Transfer:</b>	Effective:	Inactive:
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**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

Upon successful completion of this course the student will be able to:

1. Develop a design and describe installation specifications for:
  - a. Swale
  - b. French Drains
  - c. Surface Drains
2. Describe basic soil/water relationships.
3. Analyze water movement within differing soils.
4. Assemble equipment/material specs. and select appropriate materials for a variety of drainage systems.
5. Write installation specs/standards for a variety of types of installation projects.
6. Select sloped surface stabilization methods for specified degrees of slope.
7. Describe site grading processes for a variety of conditions.

### **Topics and Scope:**

- I. Soil/water relationships
- II. Site Grading
- III. Site Drainage
  - A. Surface systems
  - B. Subsurface systems
- IV. Equipment and materials
  - A. Selection
  - B. Specifications
- V. Installation
  - A. Types of projects
  - B. Installation sequence
  - C. Testing and evaluation of system

- VI. Erosion Control
  - A. Perimeter erosion
  - B. Surface erosion
  - C. Channel erosion
- VII. Special situations
  - A. Slope ratios
  - B. Grade tolerances

**Assignment:**

1. Reading assignments with corresponding worksheet calculations.
2. Site design with installation specifications.
3. Write installation specifications.

**Methods of Evaluation/Basis of Grade:**

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework, Reading reports

Writing  
20 - 30%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, Site design project.

Problem solving  
40 - 50%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations  
0 - 0%

**Exams:** All forms of formal testing, other than skill performance exams.

None

Exams  
0 - 0%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation.

Other Category  
20 - 30%

**Representative Textbooks and Materials:**

California Landscape Standards. CLCA, Sacramento, CA. Current edition.  
Sauter, David. Landscape Construction. Delmar, 2000.