

**HORT 195.3 Course Outline as of Fall 2002****CATALOG INFORMATION**

Dept and Nbr: HORT 195.3 Title: LANDCADD: IRRIG PLANS

Full Title: LANDCADD: Irrigation Plans

Last Reviewed: 3/12/2007

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.00	Lecture Scheduled	2.00	6	Lecture Scheduled	12.00
Minimum	1.00	Lab Scheduled	3.00	6	Lab Scheduled	18.00
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	30.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 24.00

Total Student Learning Hours: 54.00

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:**

Introduction to computer assisted landscape drafting utilizing the LANDCADD software program to execute professional quality irrigation plans. Course covers getting started with LANDCADD, with particular attention given to placing irrigation heads, defining zones, placing pipe, drip irrigation, mainline pipe layout/placement, and completing an irrigation plan layout.

**Prerequisites/Corequisites:**

Course Completion of HORT 94A ( or AG 94A)

**Recommended Preparation:**

Course Completion of APTECH 46 ( or APTECH 56 or ENGR 56 or ENGR 22)

**Limits on Enrollment:****Schedule of Classes Information:**

Description: Introduction to computer assisted landscape drafting utilizing LANDCADD. Basic LANDCADD irrigation plans, including: placing irrigation heads, defining zones, mainline pipe placement, and completing an irrigation plan. (Grade or P/NP)

Prerequisites/Corequisites: Course Completion of HORT 94A ( or AG 94A)

Recommended: Course Completion of APTECH 46 ( or APTECH 56 or ENGR 56 or ENGR 22)

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:
<b>CSU Transfer:</b>		Effective:	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**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. Create a new irrigation project using LandCADD software.
2. Develop a computer drafted irrigation plan from a schematic drawing.
3. Differentiate among and utilize a number of methods for placing and arranging irrigation heads and/or emitters in a plan.
4. Define the irrigation zones for spray sprinklers and drip irrigation systems.
5. Arrange lateral and mainline pipe in an irrigation plan.
6. Determine and apply correct symbols and labeling styles for various aspects of an irrigation plan layout.

### **Topics and Scope:**

- I. Beginning the Project
  - A. Adding a project
  - B. Default CAD settings
  - C. Plot scales
- II. Irrigation Design
  - A. Getting Started
    1. symbol configuration
    2. head configuration
  - C. Placing Irrigation Heads
    1. auto head layout
    2. locate on edge
    3. single head placement
  - D. Zones
    1. what are they?
    2. defining and using zones to place sprinkler heads

- E. Placing Pipe
  - 1. placing lateral and mainline pipes
  - 2. autopipe layout
    - a. placing laterals
    - b. autosizing laterals
  - 3. autosizing laterals
- F. Drip Irrigation
  - 1. designing subsurface irrigation systems
  - 2. labeling zones
  - 3. drip emitter location
- G. Mainline Pipe Design/Placement
  - 1. mainline pipe settings
  - 2. drawing mainline pipe
  - 3. autosizing
- H. Completing an Irrigation Plan
  - 1. symbols
  - 2. table

**Assignment:**

- 1. Place and arrange irrigation heads in a drawing.
- 2. Create irrigation zones for spray sprinklers and drip irrigation systems in a drawing.
- 3. Produce a complete irrigation plan for a landscape site.

**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.

None, This is a degree applicable course but assessment tools based on writing are not included because skill demonstrations are more appropriate for this course.

Writing  
0 - 0%

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

None

Problem solving  
0 - 0%

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

Class performances, Performance exams, Computer generated drawings.

Skill Demonstrations  
60 - 80%

**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; participation; following instructions.

Other Category  
20 - 40%

**Representative Textbooks and Materials:**  
LandCADD Training Manual, 2001.  
Instructor prepared materials.