HORT 195C Course Outline as of Spring 2011

CATALOG INFORMATION

Dept and Nbr: HORT 195C   Title: CAD: IRRIGATION PLANS
Full Title: CAD: Landscape Irrigation Plans
Last Reviewed: 3/12/2007

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.00	Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	1.00	Lab Scheduled	1.00	6	Lab Scheduled	17.50
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 35.00   Total Student Learning Hours: 70.00

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: HORT 195.3

Catalog Description:
Introduction to computer assisted landscape drafting utilizing CAD (computer-aided drafting) software to execute professional quality landscape irrigation plans. 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 or Current Enrollment in HORT 195B (or HORT 195.2)

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Introduction to computer assisted landscape drafting utilizing CAD (computer-aided drafting) software to execute professional quality landscape irrigation plans. Particular attention given to placing irrigation heads, defining zones, placing pipe, drip irrigation, mainline pipe layout/placement, and completing an irrigation plan layout. (Grade or P/NP)
Prerequisites/Corequisites: Course Completion or Current Enrollment in HORT 195B (or

HORT 195.2)
Recommended:
Limits on Enrollment:
Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer: Effective: Inactive:

UC Transfer: 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 CAD 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.
7. Develop a materials takeoff and cost estimate for an irrigation plan.

Topics and Scope:

I. Beginning the Project
  A. Default CAD standards
  B. Plot scales
II. Irrigation Design
  A. Getting Started
      1. symbol configuration
      2. head configuration
  B. Placing Irrigation Heads
      1. auto head layout
      2. locate on edge
      3. single head placement
  C. Zones
      1. what are they?

2. defining and using zones to place sprinkler heads
   D. Placing Pipe
      1. placing lateral and mainline pipes
      2. autopipe layout
        a. placing laterals
        b. autosizing laterals
      3. autosizing laterals
   E. Drip Irrigation
      1. designing subsurface irrigation systems
      2. labeling zones
      3. drip emitter location
   F. Mainline Pipe Design/Placement
      1. mainline pipe settings
      2. drawing mainline pipe
      3. autosizing
   G. Completing an Irrigation Plan
      1. symbols
      2. table
III. Materials Takeoff and Estimate

Assignment:

Skill demonstrations:
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.
4. Produce a materials takeoff and estimate.
Objective exams:
5. Midterm and final exam.
Reading:
6. Reading: 5-10 pages per week.

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.

	Skill Demonstrations 60 - 80%

Class performances, Performance exams, Computer generated drawings.

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

	Exams 20 - 40%

Multiple choice, True/false, Matching items, Completion, Short answer

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

	Other Category 0 - 0%

None

Representative Textbooks and Materials:
Instructor prepared materials.