

Section I: Course Description

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Department: Landscape Horticulture (LHO)

Division: Hospitality and Service Occupations

Curriculum: Landscape and Environmental Horticulture

Revision: J. Bruner

Course Title: Irrigation Systems Design I

Effective Date: June 2000

Course Number: LHO236

Status: Active

Type Of Course: Vocational Preparatory

Course Length: 1 Quarter

Credit Hours: 3

Lecture Hours: 33

Lab Hours: 0

Class Size: 25

Prerequisites: None

Course Description

An in-depth study of irrigation design theory, hydraulics, fluid behavior, microclimatization, and application technology

Section II: Student Learning Outcomes

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Student Learning Outcomes

1. Communication - Students will be able to explain to potential clients how an irrigation system manages plant water relationships, microclimatization, and water conservation.
2. Theory - Students will have a strong understanding of hydrodynamics and how it applies to irrigation design.
3. Technology - Students will learn about water management technology, fixtures, and modern control technology.
4. Critical Thinking - Use critical thinking methods to troubleshoot obstacles that are encountered during the design process.
5. Information Literacy - Be aware of available suppliers, reference materials, and industry organizations to help further academic and personal goals.

Section III: Course Objectives

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General Course Objectives

At the end of the course the student will be able to:

1. Meet with prospective client to discuss options and potential design features for their system.
2. Perform a site analysis and create base maps of the project.
3. Design an efficient irrigation system that has excellent coverage,

conserves
water, and has minimal maintenance.
4. To create a design blue print and specification for the
installation.

Section IV: Course Outline

Topical Course Outline

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Topical Outline:

	Approx. Hours
I. Hydraulic principals, types of irrigation and drainage systems, components, and functions	
II. Creation of an irrigation plan	
20	
III. Critical thinking when encountering obstacles	

33

Total