

**ADED 748.5 Course Outline as of Summer 2025****CATALOG INFORMATION**

Dept and Nbr: ADED 748.5 Title: INTRO SPRINKLER REPAIR

Full Title: Introduction to Sprinkler Repair and Maintenance

Last Reviewed: 1/28/2019

Units		Course Hours per Week	Nbr of Weeks	Course Hours Total
Maximum	0	Lecture Scheduled	0	Lecture Scheduled 0
Minimum	0	Lab Scheduled	3.00	Lab Scheduled 24.00
		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: 0.00

Total Student Learning Hours: 24.00

Title 5 Category: Non-Credit

Grading: Non-Credit Course

Repeatability: 27 - Exempt From Repeat Provisions

Also Listed As:

Formerly: ADLTED 748.5

**Catalog Description:**

This course introduces students to the basics of irrigation systems with particular focus on: repairing sprinklers and damaged lines; raising, lowering, and relocating sprinkler heads; troubleshooting the main assembly.

**Prerequisites/Corequisites:****Recommended Preparation:**

Course Completion of ADED 742.1 ( or ADLTED 742.1 or ADLTED 742)

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

Description: This course introduces students to the basics of irrigation systems with particular focus on: repairing sprinklers and damaged lines; raising, lowering, and relocating sprinkler heads; troubleshooting the main assembly. (Non-Credit Course)

Prerequisites/Corequisites:

Recommended: Course Completion of ADED 742.1 ( or ADLTED 742.1 or ADLTED 742)

Limits on Enrollment:

Transfer Credit:

Repeatability: Exempt From Repeat Provisions

## **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**

**Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Install and maintain irrigation systems under the supervision of an experienced irrigation specialist.

**Objectives:**

At the conclusion of this course, the student should be able to:

1. Describe and explain the basic components of irrigation systems
2. Identify broken irrigation system components
3. Repair irrigation system components under the supervision of an experienced irrigation specialist

**Topics and Scope:**

I. Common Landscape Irrigation Terminology

II. Irrigation Components

- A. Sprinkler heads
- B. Filters
- C. Valves
- D. Pipes and fittings
- E. Pressure Regulators
- F. Controllers
- G. Sensors
- H. Flow meters
- I. Backflow preventions

III. Irrigation Principles and Hydraulics

IV. Landscape Irrigation Design Basics

## V. Causes of Failure

- A. Obstructions
- B. Suspended materials
- C. Chemical precipitation
- D. Soil ingestion
- E. Biologic buildup
- F. Other

## VI. Installation and Maintenance Basics

- A. Replacing sprinkler heads
- B. Raising/lowering/relocating sprinkler heads
- C. Repairing damaged lines
- D. Troubleshooting the main assembly

## VII. Tools and Safety

- A. Basic installation tools and materials
- B. Safety in the field

### Assignment:

1. Poster project of irrigation components
2. Maintenance worksheets (2 to 4)
3. Oral quizzes (2)
4. Group projects installing and repairing irrigation systems (2)
5. Active attendance and participation

### 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.

Worksheets

Writing  
10 - 15%

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

Group projects installing and repairing irrigation systems

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.

Oral quizzes

Exams  
10 - 15%

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

Poster project; active participation and attendance

Other Category  
30 - 35%

**Representative Textbooks and Materials:**

Instructor prepared materials