COLLEGE OF THE DESERT

Course Code AGEH-046L

Course Outline of Record

1. Course Code: AGEH-046L
2. a. Long Course Title: Landscape Irrigation Systems Lab
   b. Short Course Title: LANDSCAPE IRRIG LAB
3. a. Catalog Course Description:
   This laboratory is intended to supplement the Landscape Irrigation System course (AGEH-046) by providing laboratory and field experiences in landscape irrigation subject areas.
   b. Class Schedule Course Description:
   This laboratory is intended to supplement the Landscape Irrigation System course (AGEH-046) by providing laboratory and field experiences in landscape irrigation subject areas.
   c. Semester Cycle (*if applicable*): *N/A*
   d. Name of Approved Program(s):
   - ENVIRONMENTAL HORTICULTURE AS Degree for Employment Preparation
   - ENVIRONMENTAL HORTICULTURE Certificate of Achievement
   - TURFGRASS MANAGEMENT AS Degree for Employment Preparation
   - TURFGRASS MANAGEMENT Certificate of Achievement
4. Total Units: 1.00 Total Semester Hrs: 54.00
   Lecture Units: 0 Semester Lecture Hrs: 0
   Lab Units: 1 Semester Lab Hrs: 54.00
   Class Size Maximum: 26 Allow Audit: No
   Repeatability No Repeats Allowed
   Justification 0
5. Prerequisite or Corequisite Courses or Advisories:
   Course with requisite(s) and/or advisory is required to complete Content Review Matrix (CCForm1-A)
   Prerequisite: AGEH 046 or concurrent enrollment
6. Textbooks, Required Reading or Software: *(List in APA or MLA format.)* *N/A*
7. Entrance Skills: *Before entering the course students must be able:*
   a. Read and interpret blueprints.
   - AGEH 046 - Read and interpret blueprints.

   b. Apply general hydraulic and electrical principles to specific situations.
   - AGEH 046 - Apply general hydraulic and electrical principles to specific situations.

   c. Use problem solving methods for trouble-shooting and design.
   - AGEH 046 - Use problem solving methods for trouble-shooting and design.

   d. Understand current technology and equipment including computer controllers.
   - AGEH 046 - Understand current technology and equipment including computer controllers.

   e. Analyze existing systems for efficiency.
   - AGEH 046 - Analyze existing systems for efficiency.

   f. Make bids that are competitive in the current market.
   - AGEH 046 - Compose bids that are competitive in the current market.

8. Course Content and Scope:

Lecture:

See lab content

Lab: *(if the "Lab Hours" is greater than zero this is required)*

a. Irrigation materials identification and proper use
b. Field design of irrigation systems
c. Field lay out of systems prior to installation
d. Installation of systems using proper techniques and materials
e. Adjustment of irrigation systems according to environmental and cultural demands
f. Programming of irrigation controllers
g. Systems problem troubleshooting and repair
h. Valve wiring and vale repair
i. Controller wiring and basic repair
j. Sprinkler repair
k. Pricing of new irrigation systems
l. Writing of material lists

9. Course Student Learning Outcomes:

1.
The student will be exposed to various landscape irrigation repair procedures and practices.

2.
The student will demonstrate the proper methods used in landscape irrigation installation.

3.
The student will be exposed to current methods of conserving water in various landscape irrigation delivery systems.

10. Course Objectives: *Upon completion of this course, students will be able to:*

a. Properly identify irrigation materials and explain their use.
b. Design irrigation systems in the field and explain aid of architectural review.
c. Properly lay out an irrigation system in the field.
d. Properly install irrigation systems.
e. Properly adjust irrigation systems.
f. Program irrigation controllers.
g. Troubleshoot irrigation problems.

11. Methods of Instruction: *(Integration: Elements should validate parallel course outline elements)*

a. Demonstration, Repetition/Practice
b. Discussion
c. Laboratory
d. Lecture
e. Observation
f. Participation

Other Methods:

Use of irrigation tools and visual aids Students working as partners

12. Assignments: *(List samples of specific activities/assignments students are expected to complete both in and outside of class.)*

In Class Hours: 54.00

Outside Class Hours: 0

a. In-class Assignments

1. Participation is expected and required
2. Demonstrate skills required for proper irrigation installation by creating irrigation plan including

materials list and calculations.
3. Troubleshooting irrigation
4. Read blueprint and develop a material list
5. In field irrigation design and installation.

b. Out-of-class Assignments

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13. Methods of Evaluating Student Progress: *The student will demonstrate proficiency by:*
    - Laboratory projects
    - Mid-term and final evaluations
    - Student participation/contribution
    - Student preparation

14. Methods of Evaluating: Additional Assessment Information:

Class Notebook and Field Reports Installation Projects

15. Need/Purpose/Rationale -- *All courses must meet one or more CCC missions.*

PO - Career and Technical Education

Fulfill the requirements for an entry- level position in their field.
Apply critical thinking skills to execute daily duties in their area of employment.
Apply critical thinking skills to research, evaluate, analyze, and synthesize information.
Display the skills and aptitude necessary to pass certification exams in their field.
Exhibit effective written, oral communication and interpersonal skills.
Transfer to a higher level learning institution

IO - Personal and Professional Development

Self-evaluate knowledge, skills, and abilities.

IO - Scientific Inquiry

Analyze quantitative and qualitative information to make decisions, judgments, and pose questions.

16. Comparable Transfer Course

University System	Campus	Course Number	Course Title	Catalog Year

17. Special Materials and/or Equipment Required of Students:

18. Materials Fees: ☐ Required Material?

Material or Item	Cost Per Unit	Total Cost

19. Provide Reasons for the Substantial Modifications or New Course:

2-year periodic review

20. a. Cross-Listed Course *(Enter Course Code)*: *N/A*
    b. Replacement Course *(Enter original Course Code)*: *N/A*

21. Grading Method *(choose one)*: Letter Grade Only

22. MIS Course Data Elements
    a. Course Control Number [CB00]: CCC000058105
    b. T.O.P. Code [CB03]: 10900.00 - Horticulture
    c. Credit Status [CB04]: D - Credit - Degree Applicable
    d. Course Transfer Status [CB05]: B = Transfer CSU

e. Basic Skills Status [CB08]: 2N = Not basic skills course
f. Vocational Status [CB09]: Clearly Occupational
g. Course Classification [CB11]: Y - Credit Course
h. Special Class Status [CB13]: N - Not Special
i. Course CAN Code [CB14]: *N/A*
j. Course Prior to College Level [CB21]: Y = Not Applicable
k. Course Noncredit Category [CB22]: Y - Not Applicable
l. Funding Agency Category [CB23]: Y = Not Applicable
m. Program Status [CB24]: 1 = Program Applicable

Name of Approved Program *(if program-applicable)*: ENVIRONMENTAL HORTICULTURE,ENVIRONMENTAL HORTICULTURE,TURFGRASS MANAGEMENT,TURFGRASS MANAGEMENT

Attach listings of Degree and/or Certificate Programs showing this course as a required or a restricted elective.)

23. Enrollment - Estimate Enrollment
First Year: 26
Third Year: 26

24. Resources - Faculty - Discipline and Other Qualifications:
a. Sufficient Faculty Resources: Yes
b. If No, list number of FTE needed to offer this course: *N/A*

25. Additional Equipment and/or Supplies Needed and Source of Funding.
N/A

26. Additional Construction or Modification of Existing Classroom Space Needed. *(Explain:)*
N/A

27. FOR NEW OR SUBSTANTIALLY MODIFIED COURSES
Library and/or Learning Resources Present in the Collection are Sufficient to Meet the Need of the Students Enrolled in the Course: Yes

28. Originator Eddie Vaca Origination Date 10/27/17