

Course Outline of Record

1. Course Code: AGEH-030
2.
 - a. Long Course Title: Landscape Equipment
 - b. Short Course Title: LANDSCAPE EQUIPMENT
3.
 - a. Catalog Course Description:
This course covers principles and practices in the maintenance, operation and selection of equipment and power units used in the horticultural field.
 - b. Class Schedule Course Description:
This course covers principles and practices in the maintenance, operation and selection of equipment and power units used in the horticultural field.
 - c. Semester Cycle (if applicable): *N/A*
 - d. Name of Approved Program(s):
 - ENVIRONMENTAL HORTICULTURE AS Degree and Transfer Preparation
 - ENVIRONMENTAL HORTICULTURE AS Degree for Employment Preparation
 - TURFGRASS MANAGEMENT AS Degree for Employment Preparation
4. Total Units: 2.00 Total Semester Hrs: 72.00
 Lecture Units: 1 Semester Lecture Hrs: 18.00
 Lab Units: 1 Semester Lab Hrs: 54.00
 Class Size Maximum: 28 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 (CCForm I-A)
N/A
6. Textbooks, Required Reading or Software: (List in APA or MLA format.)
 - a. Radcliff, B. (2003). *Small Engines* Homewood, IL American Technical Publishers, Inc.. ISBN: 0826900127
 College Level: Yes
 Flesch-Kincaid reading level: 11
7. Entrance Skills: *Before entering the course students must be able:*
8. Course Content and Scope:

Lecture:

1. Safety in the Small Gas Engines
2. Engine Construction and Principles of Operation
3. Two Cycle, Four Cycle, and Rotary Engines
4. Fuel Systems
5. Carburetion
6. Ignition Systems
7. Engine Lubrication
8. Engine Cooling
9. Measuring Engine Performance
10. Tools and Measuring Instruments
11. Troubleshooting, Service, and Maintenance
12. Fuel System Service
13. Ignition system Service
14. Cylinder Reconditioning
15. Piston and Piston Rings

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- 16. Rods, Bearings, and Valves
- 17. Small Gas Engine Applications
- 18. Career Opportunities

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

- 1. Safety in the Small Gas Engine shop
- 2. Engine Construction
- 3. Two Cycle, Four Cycle, and Rotary Engines
- 4. Fuel Systems analysis and repair
- 5. Carburetor repair
- 6. Ignition Systems
- 7. Engine Lubrication
- 8. Engine Cooling
- 9. Measuring Engine Performance
- 10. Tools and Measuring Instruments
- 11. Troubleshooting, Service, and Maintenance of small gas engines
- 12. Fuel System Service
- 13. Ignition system Service
- 14. Cylinder Reconditioning
- 15. Piston and Piston Rings
- 16. Rods, Bearings, and Valves
- 17. Small Gas Engine Applications
- 18. Career Opportunities

9. Course Student Learning Outcomes:

1.

Identify components of small gas engines.

2.

Perform maintenance, operation, and basic repair of a variety of landscape equipment.

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

- a. Practice safety requirements.
- b. Identify and list basic problems related to turfgrass equipment.
- c. Dismantle and reassemble various turfgrass equipment.
- d. Sharpen, reassemble, adjust, back lap and test drive different turfgrass equipment.

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

- a. Demonstration, Repetition/Practice
- b. Discussion
- c. Laboratory
- d. Lecture

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

In Class Hours: 72.00

Outside Class Hours: 36.00

a. In-class Assignments

- a. Classroom participation is expected and required
- b. Assemble and reassemble small engine

b. Out-of-class Assignments

- a. Reading assignments from required text

- b. Workbook Assignments
- c. Reading of assigned materials

13. Methods of Evaluating Student Progress: *The student will demonstrate proficiency by:*

- Laboratory projects
 - True/false/multiple choice examinations
 - Mid-term and final evaluations
 - Student participation/contribution
 - Other
- Class Notebook

14. Methods of Evaluating: Additional Assessment Information:

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

PO-GE C5 – Personal Growth and Development

Value learning as a lifelong endeavor designed to enrich one's life.

Interact with individuals and within groups with integrity and awareness of others' opinions, feelings, and values.

Participate in teams to make decisions and seek consensus.

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.

IO - Critical Thinking and Communication

Apply principles of logic to problem solve and reason with a fair and open mind.

Appreciate diversity as it is expressed in multiple disciplines and across various cultures through reading, speaking and writing.

Utilizing various communication modalities, display creative expression, original thinking, and symbolic discourse.

16. Comparable Transfer Course

University System	Campus	Course Number	Course Title	Catalog Year
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17. Special Materials and/or Equipment Required of Students:

18. Materials Fees: Required Material?

Material or Item	Cost Per Unit	Total Cost
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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]: CCC000137221

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

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- 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

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

23. Enrollment - Estimate Enrollment

First Year: 28

Third Year: 28

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