LHO135 - Introduction To Drainage & Irrigation Systems

BASIC INFORMATION

Requester(s): Robert Glatt
Steve Hilderbrand

College: South Seattle Community College

Division/Dept: Professional Technical

Dean: Robert Glatt

Peer Reviewer(s): Van M Bobbitt
Aaron Burman
Sarah Skamser

COURSE INFORMATION

Proposed Course Number:
Prefix: LHO
Number: 135

Request a new Prefix
This will be a common course

Full Title: Introduction To Drainage & Irrigation Systems

Abbreviated Title: Drain/Irrigation Systems

Catalog Course Description:
Study basic principles of hydraulics, drainage and irrigation systems, irrigation fixtures and apparatus.

Course Length: 11 Weeks
Request an Exception

Course Corequisite(s):
None

Topical Outline:

I. Hydraulic principles, types of irrigation systems, components and function 5
II. Installation of components and systems 3
III. Safety and codes 3
IV. Drip systems 3
V. Cross connections 5
VI. Troubleshooting 5
VII. Precipitation Rate 3
VIII. Principles of drainage 6

COURSE CODING

Funding Source: 1..................State
Institutional Intent: 21..............Vocational Preparatory

This Course is a requirement for the following program(s):
(No Programs Selected)

☑ My Course Proposal is a requirement for a program not on this list
Program Title/Description/Notes:
LHO 1 year Certificate

Will this course transfer to a 4-year university? No

Is this course designed for Limited English Proficiency? No
Is this course designed for Academic Disadvantaged? No
Does this course have a Workplace Training component? No

CIP Code: 01.0601
EPC Code: 135

Credits:
Will this course be offered as Variable Credit? No

List Course Contact Hours
Lecture (11 Contact Hours : 1 Credit) 33
Lab (22 Contact Hours : 1 Credit) 0
Clinical Work (33 Contact Hours : 1 Credit) 0
Other (55 Contact Hours : 1 Credit) 0

Total Contact Hours 33
Total Credits 3

COLLEGE SUPPLEMENTAL

Proposed Quarter of Implementation: ☐ Request Provisional Exception
Class Capacity: 25

Modes of Delivery: (Check all that apply)
Class Schedule Description:
Learn to design and install an irrigation system. Course will cover design theory, application and installation practices.

Student Learning Outcomes:

**Computation**
Use arithmetic and other basic mathematical operations as required by program of study
Comprehend basic system hydraulics and calculate for proper system layout and function.

**Critical Thinking and Problem-Solving**
Think critically in evaluating information, solving problems, and making decisions
Evaluate and assemble a drainage and irrigation system from a plan or field layout.

**Technology**
Select and use appropriate technological tools for academic and career tasks
Operate a hand-held calculator and multimeter.

Program Outcomes:

<table>
<thead>
<tr>
<th>Included in Course Outcome Number</th>
<th>Landscape Design and Construction Certificate Program Outcomes</th>
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<tbody>
<tr>
<td>2, 4</td>
<td>1. Demonstrate ability to work with site requirements, installation contractors, clients, and maintenance personnel to accomplish project within prescribed time, resources, and budgets. (SLO 1.1, 2.1, 3.1, 3.2, 4.1, 6.2, 6.4, 6.5, 7.1)</td>
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<tr>
<td>1</td>
<td>2. Recognize, identify, and operate work site safety practices, environmental protection, workplace standards, work ethics, and leadership skills. (SLO 1.2, 3.1, 3.2, 6.1, 6.4, 6.5)</td>
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<tr>
<td>2, 3, 4</td>
<td>3. Prepare and generate required plans and documents for customers, co-workers, suppliers, and general public and effectively communicate desired outcomes and actions. (SLO 1.2, 2.3, 3.1, 3.2, 5.1)</td>
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<tr>
<td>1, 2, 3</td>
<td>4. Describe and outline career opportunities, pathways, and requirements for entry and advancement within the field. (SLO 1.2, 4.1, 5.1, 6.2, 6.3, 7.2)</td>
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<tr>
<td>1, 2, 3</td>
<td>5. Describe and demonstrate skills in use of equipment, tools, environmental controls, and computers. (SLO 1.2, 5.1, 6.2, 6.4, 6.5)</td>
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### Course Outcomes / Objectives:

1. Demonstrate an understanding of safe and proper tool usage.
2. Describe design and installation principles of irrigation and drainage systems.
3. Describe the purpose and function of components used in the installation of irrigation and drainage systems.
4. Given a blueprint, discuss the steps and procedures for installation of a drainage and irrigation system.

### Explain the student demand for the course and potential enrollment:

Currently offered once a year.
Required Course for 1 Year LHO Certificate

### Explain why this course is being revised:

Required Course for 1 Year LHO Certificate

### What challenges, if any, do you foresee in offering this course:

None.
This is to certify that the above criteria have all been met and all statements are accurate to the best of my knowledge.

Faculty involved in originating this program:

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Robert Glatt</td>
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<td>1/1/0001</td>
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<td>Steve Hilderbrand</td>
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Dean:

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<tr>
<td>Robert Glatt</td>
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<td>10/14/2013</td>
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Results of SSCC Curriculum Coordinating Council Findings

**Participating Faculty Response and Remarks**

- [x] Recommended for approval
- [ ] Not recommended for approval

Chairman, Curriculum Coordinating Council:

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<tr>
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<tr>
<td>Diane Schmidt</td>
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<td>3/11/2014</td>
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Vice President for Instruction:

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<tr>
<td>Donna Miller-Parker</td>
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<td>4/16/2014</td>
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