# **Clackamas Community College**

## **Online Course/Outline Submission System**

Show changes since last approval in red

WET-132 Collection & Distribution Lab		
General education certified: $^{\bigcirc}$	Yes 🖲	No

- □ Writing
- $\Box$  Oral Communication
- $\Box$  Arts and Letters
- □ Science & Computer Science
- □ Mathematics
- □ Social Science
- □ Cultural Literacy
- □ Health & Physical Education

#### 

### **Department:** Engineering Science

Submitter

First Name:MatthewLast Name:LaForcePhone:3148Email:laforce

#### **Course Prefix and Number: WET - 132**

#### **# Credits:** 1

#### **Contact hours**

Lecture (# of hours): Lec/lab (# of hours): Lab (# of hours): 33 Total course hours: 33

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

#### Course Title: Collection & Distribution Lab

**Course Description:** 

Field exposure to water distribution systems and wastewater collection systems. Weekly field visits include inspection of cross-connection inspection, distribution valving, reservoirs, water metering/repair, pumping station operations, smoke testing, and CCTV.

#### Type of Course: Career Technical Preparatory

Is this class challengeable?

No

Can this course be repeated for credit in a degree?

No

Is general education certification being sought at this time?

No

Does this course map to any general education outcome(s)?

No

Is this course part of an AAS or related certificate of completion?

Yes

#### Name of degree(s) and/or certificate(s): Water Quality AAS

Are there prerequisites to this course?

No

Are there corequisites to this course?

No

Are there any requirements or recommendations for students taken this course?

#### No

Are there similar courses existing in other programs or disciplines at CCC?

No

Will this class use library resources?

#### Yes

#### Have you talked with a librarian regarding that impact?

No

Is there any other potential impact on another department?

No

Does this course belong on the Related Instruction list?

#### No

**GRADING METHOD:** 

A-F or Pass/No Pass

Audit: Yes

When do you plan to offer this course?

#### Spring

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

#### No

Will this course appear in the college catalog?

#### Yes

Will this course appear in the schedule?

Yes

#### **Student Learning Outcomes:**

Upon successful completion of this course, students should be able to:

1. describe the construction and maintenance methods used in water distribution and wastewater collection systems,

2. describe drinking water piping options to include materials, sizing, valving, maintaining pressures, underground locating, repair and replacement technologies, and conventional system operations;

3. apply strategies for cross-connection devices to include reduced pressure (RP) and double check (DC) valves,

4. assess components of reservoir construction, and operation together with pumping applications;

5. describe the reasoning for collection system smoke testing, flow monitoring, dye testing, and sampling methods as applied to collection systems.

This course does not include assessable General Education outcomes.

#### **Major Topic Outline:**

1. Construction and maintenance methods used in water distribution and wastewater collection systems.

- 2. Closed-Circuit TV pipeline inspection.
- 3. Flow monitoring with electronic equipment.
- 4. Live water main tapping using a "corp." stop, pigtails, and connection to the water meter.
- 5. Cross-connection control/inspection.
- 6. Bio-Solids Disposal for agricultural purposes.

Does the content of this class relate to job skills in any of the following areas:

- 1. Increased energy efficiency No
- 2. Produce renewable energy No
- 3. Prevent environmental degradation No
- 4. Clean up natural environment No
- 5. Supports green services No

Percent of course: 0%

First term to be offered:

Next available term after approval

: