Clackamas Community College

Online Course/Outline Submission System

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Section #1 General Course Information

Department: Engineering Science

Submitter

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Course Prefix and Number: WET - 112

 # Credits: 4

Contact hours

Lecture (# of hours): 33
Lec/lab (# of hours): 22
Lab (# of hours):
Total course hours:　55

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: Computer Applications for Water and Wastewater Operations

Course Description:

Focuses on direct application of Microsoft Word, Powerpoint, and Excel for producing compliance reports, professional presentations, and data analysis. Emphasis will be put on the use of Excel for statistical analysis of water and wastewater plant data for state and federal compliance. Supervisory control and Data Acquisition (SCADA) will also be covered. Wastewater simulators will be explored and used to design and manipulate unit processes.

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): AAS Water & Environmental Technology and 1-year Certificate WET

Are there prerequisites to this course?

No

Are there corequisites to this course?

Yes

Co-reqs: WET-110 and WET-111

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: No

When do you plan to offer this course?

✓ **Fall**

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. use Microsfoft word to create a professional report for state and federal level compliance for water and wastewater applications;
2. demonstrate professional use of Microsoft Powerpoint for development and use for presentations;
3. apply the use of Microsoft Excel for data analysis of various water and wastewater data sets;
4. create a National Pollutant Discharge Elimination System (NPDES) report and presentation using specific computer software;
5. describe the functions and uses of a SCADA system within a water and wastewater facility;
6. apply and evaluate a wastewater modeling program for designing more efficient treatment options.

This course does not include assessable General Education outcomes.

Major Topic Outline:

1. Microsoft Word, Powerpoint, and Excel applications in the water and wastewater industry.
2. National Pollutant Discharge Elimination System (NPDES) report writing for state and federal level compliance.
3. Professional presentations for the water and wastewater industry.
4. Data analysis using Excel on water and wastewater data sets.
5. Statistical analysis using Excel on water and wastewater data sets.
6. Water and wastewater simulations and modeling.
7. SCADA Systems

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
: