## **Clackamas Community College**

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

Show c	hanges since last approval in red						
	Water Distribution and Wastewater Collection Systems ucation certified: Yes No						
Arts and Science Mathen Social S Cultura							
Approved Date (mm/dd/yyyy):  Section #1 General Course Information							
Departme Submitter	nt: Engineering Science						
First Name	e: Matthew						
Last Name							
Phone:	3148						
Email:	laforce						
Course Pr	efix and Number: WET - 122						
# Credits:	3						
Contact hours							
Lecture (#	of hours): 33						
Lec/lab (#							
Lab (# of l							

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: Water Distribution and Wastewater Collection Systems

**Course Description:** 

Elementary engineering aspects of water distribution and wastewater collection systems. System components, construction materials, pump station design, maintenance, operations, and other related topics.

Type o	of Course:	Career	<b>Technical</b>	Preparatory

Is this class challengeable?

Yes

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?

Yes

**Pre-reqs:** Pass WET-110

Have you consulted with the appropriate chair if the pre-req is in another program?

No

Are there corequisites to this course?
Yes
Co-reqs: WET-120
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?
Winter
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 co	ourse, students should be able to:						
<ol> <li>apply basic engineering aspects of sewer to design, flow and collection system hydraulics.</li> <li>implement proper inspection, operation and maintenance techniques to collection systems,</li> <li>apply the basic engineering aspects of water distribution systems to design, flow, and hydraulic principles.</li> <li>implement proper inspection, operation and maintenance of water distribution systems.</li> </ol>							
4. Implement proper inspection, opera	ation and maintenance of water distribution systems.						
This course does not include assessable General Education outcomes.							
Major Topic Outline:							
1. Wastewater Collection System Operator: Duties and Responsibilities. 2. Why do we need Collection System Operation and Maintenance? 3. Wastewater Collection Systems: Basics/Description. 4. Safe and Safety Procedures. 5. Inspecting and Testing the Collection System. 6. Pipeline Cleaning and Maintenance. 7. Problem Solving for Open Channel Flow rates. a. Continuity. b. Manning. c. Flumes. d. Weirs.							
Does the content of this class relate to job skills in any of	f the following areas:						
<ol> <li>Increased energy efficiency</li> <li>Produce renewable energy</li> </ol>	No No						

No

5. Supports green services

Percent of course: 0%	
First term to be offered:	

Next available term after approval

: