COURSE OUTLINE: OEL862 - WASTEWATER 1 AND 2

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Approved: Lori Crosson, Director, E-Learning and Continuing Education

Course Code: Title	OEL862: WASTEWATER TREATMENT CERT LEVEL I AND II
Program Number: Name	
Department:	DISTANCE EDUCATION
Semesters/Terms:	20S, 20F, 20W
Course Description:	To present basic knowledge and practices, theories, and application relevant to wastewater flows and characteristics, basic treatment processes, and plant operations. Related concepts in chemistry, math, hydraulics, equipment, safety legislation are reinforced.
Total Credits:	4
Hours/Week:	4
Total Hours:	60
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Course Evaluation:	Passing Grade: 50%, D
Books and Required Resources:	Water and Wastewater Technology by Mark J. Hammer and Hammer Junior Publisher: Prentice Hall, Edition: 7th edition ISBN: 0135114047

Course Outcomes and Learning Objectives:

Course Outcome 1	**Learning Objectives for Course Outcome 1**
List the physical and chemical characteristics of sewage water	-List physical and chemical characteristics of municipal wastewater -Calculate BOD and SS removals
Course Outcome 2	**Learning Objectives for Course Outcome 2**
Define and discuss preliminary treatment of wastewater	-Name of the devices used in preliminary treatment -Discuss factors affecting settling of grit and removal devices
Course Outcome 3	**Learning Objectives for Course Outcome 3**
Define and discuss primary treatment of wastewater	-Define primary treatment -Understand primary operations of clarification -Knowledge about factors affecting primary treatment -Work out loading and removal efficiency
Course Outcome 4	**Learning Objectives for Course Outcome 4**
Basic knowledge about biological treatment processes	-Define secondary treatment of wastewater -Describe principle of biological treatment
Course Outcome 5	**Learning Objectives for Course Outcome 5**
Describe various types of	-Understanding of the working principle of facultative ponds

	stabilization ponds	-Describe the working principle of household septic units

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
TESTS (4)	100%

Date: March 9, 2020

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.