



## WT 130 / Wastewater Treatment Operator I

Semester:	<b>Spring 2022</b>	Instructor Name:	<b>Marcos Tarazon</b>
Course Title & #:	<b>WT 130 Wastewater Treatment Operator 1</b>	Email:	marcos.tarazon@imperial.edu
CRN #:	<b>21541</b>	Webpage (optional):	
Classroom:	<b>2726</b>	Phone Cell #:	<b>760-791-9532</b>
Class Dates:	<b>2/14/2022 ~ 6/6/2022</b>	Office Hours:	<b>N/A</b>
Class Days:	<b>Monday</b>	Office Phone #:	
Class Times:	6:00PM~10:15PM	Emergency Contact:	<b>760-791-9532</b>
Units:	4.0	Class Format:	

### Course Description

This course is designed to train operators in the effective operation and goals of the wastewater treatment process. The course will consist of the fundamentals of water cycle, wastewater treatment daily operations, sources and pretreatment of domestic and industrial wastes, interpretation of laboratory results, and process control.

### Course Prerequisite(s) and/or Corequisite(s)

N/A

### Student Learning Outcomes

Operators learn to operate and maintain racks, screens, comminutors, sedimentation tanks, trickling filters, rotating biological contactors, package activated sludge plants, oxidation ditches, ponds, and chlorination facilities. Operators also learn to analyze and solve operational problems and to perform mathematical calculations relating to wastewater treatment process control.

### Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Demonstrate knowledge of treatment plant operators.
2. Demonstrate knowledge of reason for treating waste.
3. Demonstrate knowledge of wastewater treatment facilities.
4. Demonstrate knowledge of racks, screens comminutors and grit removal.
5. Demonstrate knowledge of trickling filters.
6. Demonstrate knowledge of rotating biological contactors.
7. Demonstrate knowledge of sedimentation and flotation.



8. Demonstrate knowledge of activated sludge (package plants and oxidation ditches)
9. Demonstrate knowledge of waste treatment ponds.
10. Demonstrate knowledge of water disinfection.

### Textbooks & Other Resources or Links

Textbook Needed:

**Operation of Wastewater Treatment Plants Volume 1, Eighth Edition 2019**

(Water Programs Sacramento State)

IVC Library or

link to order:

[Wastewater Courses \(csus.edu\)](http://csus.edu)

### Course Requirements and Instructional Methods

**Required materials:** Any device able to work with CANVAS, laptop preferably, notebook, pen and pencil with eraser, calculator with at least 9 digits capability (not programmable), solar power recommended.

**Assignments:** Will be made in class/homework and will not be accepted late. Assignments will be both individual and group work and will include presentations.

**Out of Class Assignments:** The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

### Course Grading Based on Course Objectives

Exam grade scale is strictly base on score percentage. No partial credit will be given for math. All work must be shown for credit. You are strongly advised to be present for all exams. Make up test, unless due to special circumstances, will not be granted. Grade scale is as follows:

<b>100 - 90%</b>	~	<b>A</b>
<b>89 - 80 %</b>	~	<b>B</b>
<b>79 - 70 %</b>	~	<b>C</b>
<b>69 - 60 %</b>	~	<b>D</b>
<b>59 % or less</b>	~	<b>F</b>

## Course Policies

### *Attendance:*

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. **It is the student's responsibility to drop or officially withdraw from the class. Failure to drop the class will result in an "F" for the semester.** See [General Catalog](#) for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

### *Classroom Etiquette:*

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.

### *Online Netiquette:*

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

### *Academic Honesty:*

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- **Plagiarism** is taking and presenting as one’s own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to “cite a source” correctly, you must ask for help.
- **Cheating** is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the [General Catalog](#) for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

### Other Course Information

N/A

### IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

### Anticipated Class Schedule/Calendar

<b>WT 130 – Wastewater Treatment Operator 1 Course Outline</b>			
<b>DATE</b>	<b>CHAPTER(S)</b>	<b>TOPIC</b>	<b>ASSIGNMENT</b>
February 14, 2022		Introduction & Course overview	
February 28, 2022	1	Intro to Wastewater Treatment	Class Practice
March 7, 2022	2	Safety	Class Practice
March 14, 2022	1 - 2	<b>Review Chps 1 - 2</b>	<b>Exam Chps 1 - 2</b>
March 21, 2022	3	Preliminary Treatment	Class Practice
March, 2022	4	Primary Treatment	Class Practice



April 4, 2022	5	Activated Sludge System	Class Practice
April 11, 2022	5	Activated Sludge/Review Chp 3-5	Class Practice
<b>April 18, 2022</b>		<b>SPRING RECESS</b>	
April 25, 2022	6	Fixed Filed Process	Class Practice
May 2, 2022	7	Disinfection	Class Practice
May 9, 2022	8	Lagoon Systems	Class Practice
May 16, 2022	9	Laboratory Procedures	Class Practice
May 23, 2022		Review	Class Practice
<b>May 30, 2022</b>		<b>Holiday</b>	
<b>April 6, 2022</b>	<b>All</b>	<b>Final</b>	<b>Final</b>

**\*\*\*Subject to change without prior notice\*\*\***