

Special Topic in Environmental Engineering II: Physical and Chemical Water Treatment (CIEE 745 / IMSC 220)

Semester Syllabus

Part 1: Course Information

Instructor Information

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Course Description

Physical-chemical treatment processes for the treatment of water, including sedimentation, flotation, filtration, coagulation, oxidation, disinfection, precipitation, adsorption, and membrane treatment processes. Current issues in drinking water quality and treatment are discussed.

Prerequisite

Chemical Principle in Environmental Engineering

Course Duration

42 contact hours, 3 hours per week (3-credit course)

Credit: 3

Compulsory/elective course: Elective

Part 2: Course Objectives

At the end of this course you should be able to apply physicochemical principles of environmental engineering to the design of the most common unit processes used in the treatment of water and waste. Furthermore, you should be able to select and design appropriate unit processes for scenarios typically encountered in the area of drinking water treatment.

Part 3: Major Assessment Methods

Midterm Exams	35%
Final Exam	35%
Homework	20%
Project	10%