



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Advanced Physical Chemical Treatment Processes

ENVENG 5210

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Graduate (5000-8000 level)

Course Components:

Lecture

Course Description:

Principles and design of physical and chemical processes for water and wastewater treatment including mixing, mass transfer, chemical kinetics, oxidation-reduction, disinfection, emerging contaminants, and water reuse.

Prerequisites and Co-requisites:

Prereq: 3210 (520) or CivilEn 520, or Grad standing in Engineering or EarthSc, or permission of instructor.

Course Goals / Objectives:

- Be able to describe and design the important physical and chemical treatment technologies in water supply and wastewater
 - Be able to read and critically analyze research papers
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Course Topics:

- chemical reactions and kinetics
 - reactors and modeling
 - mass transfer
 - oxidation and reduction
 - disinfection
 - water reuse
 - journal article review discussions
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Designation:

Elective