

Environmental Organic Chemistry

ENVENG 5719

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level) Graduate

Course Components:

Lecture

Course Description:

Fate and distribution of organic pollutants in the environment including aqueous solubility, vapor pressure, environmental partition coefficients, and transformation reactions. Intended for students in EarthSc, CivilEn, and the Grad EnvSci program.

Prerequisites and Co-requisites:

Prereq: 5718 and Chem 4200, or permission of instructor.

Course Goals / Objectives:

• conduct research in the areas of contaminant fate in the subsurface, aquatic or atmospheric systems require fundamental knowledge of processes governing organic compound phase transfer and degradation reactions

Course Topics:

- Nomenclature and structure of organic compounds Chemical thermodynamics Vapor pressure of organic chemicals
- Aqueous solubility of organic compounds Partitioning of pollutants between water and organic solvents Henry's Law
- Abiotic Reactions Dissolved Organic Matter
- Abiotic Reduction Photochemical Reactions

Designation:

Elective