CIV3106 Environmental Chemistry

Hours per Semester				Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment Mark	Credit Units
LH	PH	TH	CH	WTM	WEM	WCM	CU
30	30	0	45	100	60	40	3

Course Description

Environmental chemistry involves studying the fate and effects of chemicals species in the environment. It defines the intended use of analytical data, preparing sampling plans for intended use, selecting appropriate analytical methods, advising on collection of field samples, interpreting laboratory analytical results, and assuring validity and legal defensibility of analytical results. It also involves evaluation of organic and inorganic chemical reactions as well as physical processes such as volatilization, cosolvency effects, and soil adsorption. The broad area of environmental chemistry encompasses a number of related fields, including: analytical chemistry, chemical engineering, organic chemistry, data quality assurance, radiation chemistry, and inorganic chemistry and their applications in water and wastewater treatment.

Objectives

- Develop sensitivity for the environmental impact of large quantities of industrially produced chemicals
- Develop an understanding of the chemical/physical processes in the natural environment
- Use simple mathematical models for quantitative prediction of chemical behaviour in the natural environment
- Demonstrate that chemistry is the backbone of water and wastewater treatment and environmental quality management