Course Title: Environmental Chemistry

Course Code: ENS-820

Credit Hours: 3-0

Prerequisite: Nil

Course Objectives

To improve students' comprehension about the effects and fate of pollutants and toxicants on human health & environment and acquaint them with pollution mitigation practices.

Course Contents

- Pollutants in-organic (Chromium/Cadmium, Lead) and organic-pesticides,
- their residues fertilizers
- Toxicology-inorganic metallic compounds and industrial effluents effects of pollutants on human health (Nickel)
- Monitoring of air pollution and its control
- Water pollution and its control
- Processes for disposal of industrial pollutants (Landfill techniques incineration etc.)
- SOXs and NOXs, their efficient removal- radiation processing techniques
- Outlines of classical and modern chromatographic techniques
- Comparative merits
- GLC
- HPLC
- Gel permeation chromatography
- SEC size exclusion chromatography

Recommended Books

1. Stanley E. Manahan, Fundamentals of Environmental and Toxicological Chemistry, CRC Press, Taylor & Francis Group, 2013.

D.A. Skoog, D.M. West, F.J. Holler and S.R. Crouch, Fundamentals of Analytical Chemistry, Mary Finch Publications USA. 2014.