CHEM 427 Syllabus

Course Code	Course Name	Credits	Prerequisite(S)	Classification
CHEM 427	Environmental Inorganic Chemistry	2	CHEM 322	**Elective** Course

Course Description	Environmental Inorganic Chemistry is an elective course for Chemistry students. It aims to gain awareness of environmental consequences of inorganic pollutants in air, water, and soil. It helps students to understand how the knowledge of chemistry can be used to solve environmental problems.
Class Scheduling	Classes are held 2 times/week each for 50 minutes.
Textbook	Environmental Chemistry, Stanley E Manahan, 10th Edition, 2017, by CRC Press
Course Coordinator	Dr. Dalal A. Alezi

Relationship to SOs

1	2	3	4	5	6
X			X	X	

CLOs

By the end of this course student will be able to:

CLO1. Identify the chemical processes essential for the operation of the natural environment. (SO1)

CLO2. Describe some classical and instrumental techniques used in environmental analysis. (SO1)

CLO3. Determine different sources of pollutants, their transportation and accumulation in the environment. (SO1)

CLO4. Explain various methods to solve environmental problems and protect environment. (SO5)

CLO5. Discuss the Current and Future renewable sources of energy. (SO5)

CLO6. Demonstrate effective oral and written scientific communication skills. (SO4)

Contents

List of Topics	No. of Weeks
Course introduction, what is Environmental Chemistry	1
Part 1: Environmental Chemistry and the Five Spheres of the Environment	2
Part 2: Atmospheric Chemistry and Air Pollution	2
Part 3: Climate Change Sustainable Energy	3
Part 4: Water chemistry and Water Pollution	3
Part 5: Toxic Organic Compounds	1
Part 6: Chemical Analysis in Environmental Chemistry	1