

INORGANIC CHEMISTRY (BS-ADP 7th Semester)

Module Code:	Chem-414
Module title:	Environmental Aspects
Name of Scheme:	BS-ADP 7th Semester
Department:	School of Chemistry
Faculty:	Science
Module Type:	Compulsory
Module Rating:	2 credits

OBJECTIVES:

The aim of this course is to provide the concepts for better understanding of advance study in inorganic chemistry and other interdisciplinary subject related to inorganic chemistry. The students will learn about stereochemistry and bonding in main group compounds, periodicity and organic reagents used in inorganic analysis.

SYLLABUS OUTLINE:

1. Environmental aspects of inorganic compounds:

Introduction, environmental segments and their interrelation ships (Water Cycle, Oxygen Cycle, Nitrogen Cycle), Environmental quality standards (air, drinking water and wastewater), nature and composition of atmosphere,, common air pollutants and their sources, greenhouse effect and global warming, stratospheric ozone depletion, vehicular emissions, Acid rain and its impacts, Photochemical smog, Indoor air quality. Importance of water, criteria for water quality, BOD and COD, sources of water pollution (industrial, agricultural, municipal and natural), fertilizers, pesticides, detergents, heavy metals, bio-accumulation and bio-amplification, primary, secondary and advanced treatment of water.

RECOMMENDED BOOKS:

1. J.W. Moore & EM. Moore, Environmental Chemistry, Academic Press, New York.
2. Manahan, S. (2017). Environmental chemistry. CRC press.
3. Sharma, B. K. (2014). Environmental chemistry. Krishna Prakashan Media.