

INORGANIC CHEMISTRY (BS-ADP 7th Semester)

Module Code:	Chem-408
Module title:	Periodicity
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. Periodicity of s-Block block elements:**
Introduction, Occurrence and Abundance, Extraction of these metals, Flame colours and spectra, Chemical Properties, Oxides, hydroxides, Sulfides, Hydrides, Oxosalts, Nitrates, Carbides, Halide, Biological importance.
- 2. Periodicity of p-Block block elements:**
Introduction, Occurrence and Abundance, First and second row anomalies. The use of d-orbitals by non-metals, reactivity and d-orbital participation. The use of p-orbitals in Pi-bonding, periodic anomalies of the non-metals and post-transition metals, $d\pi$ - $P\pi$ bonds.

RECOMMENDED BOOKS:

1. Quantitative Analysis Chemistry, James S. Pritz, George H. Schenk, 1987 Alby and Becon Inc. London.
2. Inorganic Chemistry by James E. Huheey 1983 Harper International London.
3. Advanced Inorganic Chemistry by F.A. Cotton and G. Wilkineon 1972, Interscience, Publishers, London.
4. Haq Nawaz Bhatti and Rabia Rehman, Advanced Inorganic Chemistry”, Carvan Book House Lahore.
5. R.D.Madan, Satya Prakash’s Modern Inorganic Chemistry, S. Chand Company and Ltd, 2002.