



WMO ARTS AND SCIENCE COLLEGE, MUTTIL

DEPARTMENT OF CHEMISTRY

BRIDGE COURSE ON

INTRODUCTION TO GENERAL CHEMISTRY

No. of Hours: 20

Course Objectives

The purpose of a bridge course is to help students transition from high school to college by developing their academic skills and knowledge in chemistry. It is a unique compilation which deals with those concepts in particular, that forms the basis of much higher concepts of chemistry syllabus and to gain knowledge about various areas of physical, inorganic and organic chemistry.

Syllabus

Module 1: Introduction to physical chemistry

Applications of the techniques and theories of physics to the study of chemical systems-concepts of the atom, molecule, element and compound -state of matter- basics of thermodynamics-general concepts of chemical kinetics-chemical equilibria-basics of electrochemistry-solutions-basics of surface chemistry concepts of solid state.

Module 2: Introduction to inorganic chemistry

Review of chemical bonding-MO theory and concepts of hybridization-acid base chemistry-redox stability and redox reactions-study of periodic table- classification of elements and periodicity in properties -basics of co-ordination chemistry-basic concepts of organometallics.

Module 3: Introduction to organic chemistry

Basic principles of organic chemistry-balancing chemical equations-tetravalence of carbon and shapes of organic compounds-classification of organic compounds-nomenclature-isomerism-fundamentals concepts in organic reaction mechanism-named reactions.