

FOUNDATION BIOLOGY

1. Introduction

Objective: A course to expose students to basics of biology

Credits: 3-0-0

2. Course Outline

UNIT - I:

Biological kingdoms, comparative account of prokaryotes and eukaryotes at cellular level;

UNIT - II:

Overview of interactions between prokaryotes and eukaryotes;

UNIT – III

Cells, organization, and functions of organelles; Principles of genetics or patterns of inheritance, theory of evolution;

UNIT – IV:

Biomolecules: water, sugars, amino acids, nucleotides, carbohydrates, lipids, proteins and nucleic acids;

UNIT – V :

Enzymes, chemical reactions, glycolysis, respiration, fermentation photosynthesis, nitrogen fixation, transpiration, osmosis
Overview of development;

UNIT – VI:

Digestive system, circulatory system, nervous system, endocrine glands, reproductive system.

3. Reading Material

Reference Books:

1. Biological Science, Cambridge Low Price Edition, by N.P.O. Green, G.W. Stout, D.J. Taylor, Editor: R. Soper. XI and XII Biology CBSE Books