JCL 314 (Aug) (3-0-0) Biophysical Chemistry Instructor: K. N. Ganesh

Biological Molecules: Structural Determinants, Conformations, intermolecular interactions. The hydrophobic effect and water. Protein sequence-structure-folding- function relationships. Biological membranes and compartmentalisation in cells. Energetics in Biology, oxidative phosphorylation. Catalysis of biochemical reactions, enzymes, and reaction rate theories. The logic of cellular metabolism. Biomolecular recognition"

## **Reference Books:**

- 1. Principles of Physical Biochemistry, K. E. Van Holde, C. Johnson and P.S. Ho (Pearson, 1998)
- 2. The Molecules of Life: Physical and Chemical Principles, J. Kuriyan, B. Konforti and D. Wemmer (Garland 2013)