

BIOCHEMISTRY (BS-ADP 5th Semester)

Module Code:	Chem-317
Module title:	General Biochemistry
Name of Scheme:	BS-ADP 5th Semester
Department:	School of Chemistry
Faculty:	Science
Module Type:	Optional
Module Rating:	2 credits

OBJECTIVES

This course will enable students to understand Fundamental principles of biochemistry. Students will also learn difference between prokaryotic and eukaryotic cells, organelles properties of water, buffers and their role in the human body.

SYLLABUS OUTLINES

Scope and molecular basis of Biochemistry in life. Introduction of living cells; Prokaryotes and Eukaryotes. A brief description on the isolation, structure and functions of cellular organelles. Water; structure, properties of water and aqueous solution. Colligative properties of water and its importance in life. Water interaction in aqueous system. Ionization of water, weak acids and weak bases. pH, Handerson-Hasselbalch equation and buffer systems. Different buffering agents and their importance in biological systems. Electrolytes and acid base balance in body.

RECOMMENDED BOOKS

1. Principles of Biochemistry by Lehninger AL, Nelson DL and CoxMN,2000 Pub: Worth Publishers
2. Biochemistry by Lubert Stryer (2006) Pub: Freeman and Company
3. A biologist's guide to Principles and Techniques of Practical Biochemistry by Bryan L Williams and Keith Wilson Pub: Edward Arnold Ltd.
4. Harpers Biochemistry, 27th Ed. (2006) McGraw Hills Inc.