BIOCHEMISTRY (BS-ADP 7th Semester)

Module Code:	**Chem-436**
Module Title:	**Nucleic Acids**
Name of Scheme:	**BS-ADP 7th semester**
Department:	**School of Chemistry**
Faculty:	**Science**
Module Type:	**Compulsory**
Module Rating:	**2 credits**

OBJECTIVES

This course will enable students to understand nucleic acid, its fundamental structure, properties and processes. It will also assist students to understand synthesis and degradation of purine and pyrimidine nucleotides.

SYLLABUS OUTLINES

Basics and importance of nucleic acids; major components and their structures, Phosphodiester linkage. Chargaff rules and Watson and Crick Postulates and their importance about the Structure of DNA. Classification of DNA and RNA and their importance. Chromatin and chromosomes. Determination of Primary structure of Nucleic acids. Nucleic acid hydrolysis. Biosynthesis and Catabolism of Purines and Pyrimidines. Biosynthesis of nucleotides. Urea cycle. Disorders linked to serum urate levels. Synthesis and splicing of RNA.

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. Harpers Biochemistry, 27th ed. (2006) McGraw Hill Inc.
4. Lippincott's Biochemistry by champ c; Harvey.R.A and Ferrie. D .R. 3rd edition., Pub: J. B. Lippincott company