



Biochemistry-II	
Title: Biochemistry-II	
Course number: 235 PHL	
Semester: Fourth Semester (second year).	
Duration: 2 + 1 Units (4 contact hours) per week.	
Aims: To provide knowledge on biomolecules.	
Objectives: Upon successful completion of the course the student should be able to comprehend the metabolic pathways of carbohydrates, amino acids, proteins, nucleic acids, lipids, steroids and their regulations.	
Contents: Lectures: The metabolic pathways of biomolecules: carbohydrates, amino acids, proteins, vitamins, nucleic acids, lipids, enzymes, steroids and their regulations and prostaglandins. Disorders of metabolic pathways, clinical enzymology, evaluation of liver function, hemoglobin; electrolytes, blood gases and acid-base balance; endocrine disorders Practical: Blood analysis of plasma carbohydrates, lipids, enzymes, urine analysis, renal stone analysis, isoenzymes, serum enzymes, assessment of renal and liver function and electrophoresis of serum lipoproteins	
Minimum course requirements: 30 (2 x 15) Unit lectures and 30 practical hours (2 x 15) per level.	
Evaluation methods:	
-Quizzes	10%
- Mid term examination	25%



- Practical examinations	25%
- Final examination (written)	40%
Text Books (latest editions):	
1- Biochemistry, D.K. Jan.	
2- Harper's Biochemistry, Robert K. Murray.	
Recommended books (latest editions):	
1- Biochemistry, Geoffery Zulf.	
2- Principles of Biochemistry, David L. Nilson.	