

Course Title:

224 PHL (Biochemistry)

Course description:

This course deals with types of normal metabolism of carbohydrates, lipids, proteins, and minerals. The practical part of this course deals with determination of serum or urine of some items as glucose, protein, hemoglobin, urea, uric acid, lipids, and some enzymes, also the clinical significant of each.

- Determination of serum glucose. •
- Determination of serum proteins. •
- Determination of serum hemoglobin. •
- Determination of serum urea. •
- Determination of serum uric acid. •
- Determination of serum lipids. •
- Determination of serum of some enzymes. •
- Urine analysis. •

Books:

- Thomas Devlin, John Wiley., latest edition •
- Fundamentals of clinical chemistry •
- N.M. Teitz., W.B.Saunders.co, USA, latest edition •

Marks Distribution:

- Practical exam (1) 6 •
- Quiz (1) 3 •
- Practical Exam (2) 6 •
- Quiz (2) 3 •
- Reports 2 •

(Total mark = 18)

Labs Distribution:

|         |  |
|---------|--|
| Week 2  | Introduction   |
| Week 3  | Determination of Serum Glucose Concentration   |
| Week 4  | Determination of Serum Total protein Concentration   |
| Week 5  | Determination of Serum Non Protein Nitrogen Concentration (Urea, Uric acid, and creatinin)   |
| Week 6  | Determination of Serum Bilirubin Concentration<br>Determination of Blood Hemoglobin Concentration<br>Determination of Serum Iron Concentration |
| Week 7  | Determination of Serum Lipids Concentration (Total lipids, Triglycerides, and Cholesterol)   |
| Week 8  | Enzymes Introduction   |
| Week 10 | Practical exam & Quiz (1)  |
| Week 11 | Determination of Serum Lactate Dehydrogenase (LDH)& Aminotransferases Activities   |
| Week 12 | Determination of Serum Phosphatases Activities   |
| Week 13 | Determination of Serum Creatine Kinase (CK) and $\alpha$ Amylase activities  |
| Week 14 | Urine Analysis   |
| Week 16 | Practical exam & Quiz (2)  |

