

### GENERAL AIMS:

1. To gain an overview of medical biochemistry specialty e.g., its philosophy, features and methods.
2. To help students to become familiar with the biochemical knowledge and skills necessary to understand other related subjects.
3. To provide the students with an appropriate exposures to the medical biochemistry discipline which will assist students in understanding biochemical alteration in health and disease.
4. To unveil the importance of clinical biochemistry in management of diseases.

### OBJECTIVES:

#### At the end of the course, the students will be able to demonstrate:

1. Ability to apply biochemical principles to interpret and explain the pathogenesis and manifestations of diseases.
2. Adequate understanding of protein structures and their relationships with enzymatic reactions.
3. Recognition of homeostatic dynamics through the concepts of interregulation of carbohydrates, lipids and protein metabolism and human nutrition.
4. Understanding of current theories of the structure-activity relationship of nucleic acids, mechanisms of gene regulation and principles of molecular biology.
5. Rational application of basic knowledge of protein synthesis, post translational modification and targeting to its cellular destination.
6. Knowledge of basic chemical constituents of biological fluids in health and disease with the ability to determine the relevant investigations for their applications in clinical diagnosis.
7. Problem-solving ability by using biochemical knowledge to assess and improve human nutritional status and applying such knowledge for health promotion and disease prevention in the community.
8. Commitment of personal responsibilities for professional ethics and health and environmental protection.