

# Department of Biochemistry

S.No.	Designation	Name
1	Professor	1. Dr Sonali Sharma
2	Associate Professor	1. Dr Jitendra Ahuja
3	Assistant Professor	1. Dr Sunil Gupta
4	Senior Demonstrator / Tutor	1. Dr Manju Jha 2. Mrs Sonal Bhardwaj 3. Dr Priyanka Jain

## Goal:

The broad goal of teaching undergraduate students is to make them understand the scientific basis of the life processes at the molecular level and to orient them towards the application of the knowledge acquired in solving clinical problems.

## Objectives:

**Knowledge:** At the end of the course, the student should be able to-

1. Describe the molecular and functional organisation of a cell and list its sub cellular components.
2. Delineate structure, function and inter-relationships of bio molecules and consequences of deviation from normal.
3. Summarize the fundamental aspects of enzymology and clinical application wherein regulation of enzymatic activity is altered.
4. Describe digestion and assimilation of nutrients and consequences of malnutrition.
5. Integrate the various aspects of metabolism and their regulatory pathways.
6. Explain the biochemical basis of inherited disorders with their associated sequelae.
7. Describe mechanisms involved in maintenance of body fluids and pH homeostasis.
8. Outline the molecular mechanisms of gene expressions and regulation, the principles of genetic engineering and their applications in medicine.
9. Summarize the molecular concepts of body defence and their applications in medicine.

10. Outline the biochemical basis of environmental health hazards, biochemical basis of cancer and carcinogenesis.
11. Familiarize with the principles of various conventional and specialized laboratory investigations and instrumentation analysis and interpretation of a given data.
12. The ability to suggest experiments to support theoretical concepts and clinical diagnosis.

**Skill:** At the end of the course, the student should be able to-

1. Make use of conventional techniques / instruments to perform biochemical analysis relevant to clinical screening and diagnosis.
2. Analyze and interpret investigative data.
3. Demonstrate the skill of solving scientific and clinical problems and decision making.

**Integration:**

The knowledge acquired in biochemistry should help the students to integrate molecular events with structure and function of the human body in health and disease.