



**DR. BHIMRAO AMBEDKAR UNIVERSITY, KHANDARI, CAMPUS, AGRA**  
**Department of Biochemistry**  
**School of Life Sciences**  
**Value Added Course**

Course Name	Frontiers of Biochemistry
Course Code	BC VAC-01
Duration And Credit	30 hrs & 02 Credits
Coordinator	Dr. Uditia Tiwari, Assistant Professor
Evaluation	By Coordinator
Organized by	Department of Biochemistry

**Course Objectives:**

After successful completion of the course student will learn the emerging scope of biochemistry in various fields of forensic, food and blood biochemistry

**UNIT I**

Scope and Future of Biochemistry, its branches, Green biochemistry and Red Biochemistry and its biological significance

**UNIT II**

Food Biochemistry- Biochemistry in Food industry, Handling, and Processing, Biochemically Induced Food flavours

**UNIT III**

Forensic Biochemistry - Qualitative analysis of evidence, Study of body fluids, DNA testing

**Reference Books**

Principles of Biochemistry by Nelson, Cox and Lehninger

Biochemistry by G. Zubay

Biochemistry, DVoet and JG. Voet, J Wiley and Sons.

Physical Biochemistry: Applications to Biochemistry and Molecular Biology, D Freifilder, W.H. Freeman & Company.

Practical Biochemistry, Wilson & Walker

**Course Outcomes (COs)**

On the completion of the course, students will be able to:

CO1: To understand the actual chemical concepts of various body processes and physiology using bio-molecules.

CO2: To study of biochemistry helps one to understand the actual chemical concepts of biology.

CO2: To apply the principles of environmental biochemistry to protect our environment.