

<p><b>Expected Programme Learning Outcomes (PLOs) for B.Sc. Biochemistry (Honours) in terms of :</b></p>	<p><b>Knowledge:</b> The graduates should be able to demonstrate the acquisition of knowledge to:</p> <ul style="list-style-type: none"> <li>• Define the meaning and scope of Biochemistry.</li> <li>• Explain the foundations and interdisciplinary approach of Biochemistry.</li> <li>• Discuss the evolution, growth and development of Biochemistry as Discipline.</li> <li>• Understand and reflect on the chemical nature, role and functions of biomolecules important for life.</li> <li>• Explain the basic structure of cell and its various components and analyze their role in cellular activities.</li> <li>• Explain the pathways involved in metabolism of biomolecules and reflect on the needs of diversity and integration of these pathways for sustenance of life processes</li> <li>• Analyze the physiological role of hormones and diseases manifested due to their abnormal levels or regulation.</li> <li>• Plan management of dietary components for healthy life style.</li> <li>• Explain the principles and applications of molecular biology techniques for innovations and improvements of living organisms.</li> </ul>
	<p><b>Skills:</b> The graduates should be able to demonstrate the acquisition of skills required to:</p> <ul style="list-style-type: none"> <li>• Perform laboratory investigations.</li> <li>• Use the theoretical knowledge of instrumentation and techniques in the field of molecular biology, genetics, microbiology, tissue culture.</li> <li>• Use technology for data analysis and interpretation of results.</li> <li>• Develop efficient and effective research projects in the field of biochemistry, molecular biology and bioinformatics.</li> </ul>
	<p><b>Application of Knowledge &amp; Skills:</b> The graduates should be able to demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• Calibrate learnt concepts and skills to undertake project work.</li> <li>• Apply knowledge and skills to understand about diseases due nutritional deficiencies and biochemical imbalance.</li> <li>• Perform biochemical laboratory investigations for qualitative and quantitative analysis of biological samples.</li> <li>• Use computational and statistical tools to analyze molecular data.</li> <li>• Apply the concepts learnt for higher education and research.</li> </ul>

**Generic Learning Outcomes:** The graduates should be able to demonstrate the ability to:

- Gather and interpret relevant quantitative and qualitative data to identify problems.
- Listen, read and present the information related to the course in a concise and clear manner.
- Meet one's own learning needs related to the programme
- Pursue self-paced and self-directed learning.

**Constitutional, Humanistic, Ethical, and Moral Values:** The graduates should be able to demonstrate the willingness to:

- Develop an inclusive approach towards all learners of varying abilities and backgrounds.
- Develop empathy towards the health problems of the society reflecting in the teaching- learning practices.
- Practice team work and mutual respect towards other learners and fellow citizens.
- Follow ethical practices in conducting research and project work.
- Imbibe values of good citizenry, equality, and justice.

**Employability & Entrepreneurship skills:** The graduates should be able to:

- Possess the knowledge and skills to perform biochemical laboratory investigations for qualitative and quantitative analysis of biological samples.
- Identify and create suitable employment opportunities in the area of diagnostics, quality control, pharmaceuticals, clinical trials and food industry.
- Enhance lifelong learning knowledge and skills by the continuous professional development.
- Undertake research and development in the area of biochemistry under supervision of an expert.