LEBANESE INTERNATIONAL UNIVERSITY

Major Title: Bachelor of Science in Biochemistry
Major Code: BIOC
Level: underGraduate
Number Of Credits: 99
Date: 24-09-2026

Bachelor of Science in Biochemistry (BIOC)

Program Objectives

Objective	Description
PO-1	To give students a coherent understanding of the structure, function and interactions of biological molecules and of metabolism in health and disease, grounded in biological, chemical and physical principles.
PO-2	To train students in biochemical and molecular laboratory methods, safe practice, and the quantitative, computational and bioinformatics analysis of experimental data, protein sequences and structures.
PO-3	To prepare students to plan and carry out biochemical investigations with an appropriate degree of independence, to evaluate the scientific literature critically, and to draw evidence-based conclusions from experimental results.
PO-4	To qualify students for careers in research, biomedical and clinical laboratories, pharmaceutical, biotechnology and related industries, and for postgraduate study, with the ability to communicate effectively in written, oral and digital formats to scientific and non-scientific audiences.
PO-5	To foster professional integrity, ethical, environmental and social responsibility, the ability to work independently and collaboratively in academic, research, industrial and community settings, and the habit of lifelong learning.

Program Learning Outcomes

Outcome	Description
PLO-1	Explain the structure, function, and interactions of biological molecules and biochemical processes.
PLO-2	Integrate biological, chemical, and physical principles to explain metabolic processes in normal and pathological conditions.
PLO-3	Conduct biochemical and molecular laboratory experiments using appropriate methodologies, laboratory instruments, and safe laboratory practices.
PLO-4	Analyze biochemical problems, experimental data, and metabolic disorders using scientific reasoning and appropriate quantitative, computational, and bioinformatics tools.
PLO-5	Analyze protein sequences, structures, and biochemical data using appropriate bioinformatics and molecular analysis tools.
PLO-6	Communicate biochemical concepts, experimental findings, and scientific information effectively through written, oral, and digital formats to scientific and non-scientific audiences.
PLO-7	Demonstrate professional integrity, ethical and environmental responsibility, and appropriate professional practices while working independently and collaboratively in academic, research, industrial, and community settings.
PLO-8	Demonstrate the ability to independently identify, evaluate, and acquire new knowledge for continued learning and professional development in biochemistry.
PLO-9	Conduct independent biochemical investigations by critically evaluating scientific literature, applying appropriate experimental, digital, and computational methods, and interpreting research findings.