



Bachelor of Science in Biomedicine
(BS Biomedicine)
CURRICULUM

Semester 1				
Course Code	Course	Theory	Lab	Total Credit Hours
BBM-101	English I (Functional English and Technical Writing)	3		3
BBM-102	Biochemistry-I (Theory)	3		4
BBML-103	Biochemistry-I (Lab)		1	
BBM-104	Chemistry (Theory)	3		4
BBML-105	Chemistry (Lab)		1	
BBM-106	Anatomy and Physiology- I(Theory)	3		4
BBML-107	Anatomy and Physiology- I (Lab)		1	
BBM-108	Philosophy of Bio-Medicine	3		3
Total Credit hours		15	3	18
Semester 2				
BBM-111	English II (Communication Skills)	3		3
BBM-112	Pakistan Studies	2		2
BBM-113	Introduction to Computer Applications (Theory)	3		4
BBML-114	Introduction to Computer Applications (Lab)		1	
BBM-115	Anatomy and Physiology- II(Theory)	3		4
BBML-116	Anatomy and Physiology- II (Lab)		1	
BBM-117	Biochemistry-II (Theory)	3		4
BBML-118	Biochemistry-II (Lab)		1	
Total Credit hours		14	3	17
Semester 3				
BBM-201	Bioinformatics and Machine Learning-I (Theory)	3		4
BBML-202	Bioinformatics and Machine Learning-I (Lab)		1	
BBM-203	Pharmacology and Toxicology-I (Theory)	3		4
BBML-204	Pharmacology and Toxicology -I (Lab)		1	
BBM-205	Mathematics	3		3
BBM-206	Biotechnology and Advanced Therapeutics (Theory)	3		4
BBML-207	Biotechnology and Advanced Therapeutics (Lab)		1	
BBM-208	Islamic Studies	2		2
Total Credit hours		14	3	17

Semester 4				
BBM-211	Biostatistics	3		3
BBM-212	Bioinformatics and Machine Learning-II (Theory)	3		4
BBML-213	Bioinformatics and Machine Learning-II (Lab)		1	
BBM-214	Economics	3		3
BBM-215	Leadership & Entrepreneurship	3		3
BBM-216	Microbiology and Immunology (Theory)	3		4
BBML-217	Microbiology and Immunology (Lab)		1	
BBM-218	Pharmacology and Toxicology -II (Theory)	3		4
BBML-219	Pharmacology and Toxicology -II (Lab)		1	
Total Credit hours		18	3	21
Semester 5				
BBM-301	Cellular Dynamics and Signaling	3		3
BBM-302	Biomedical Devices	2		2
BBM-303	Public Health	3		3
BBM-304	Internship/ Field Experience		3	3
BBM-305	Pathology (Theory)	3		4
BBML-306	Pathology (Lab)		1	
Total Credit hours		11	4	15
Semester 6				
BBM-311	Molecular Medicine (Theory)	3		4
BBML-312	Molecular Medicine (Lab)		1	
BBM-313	Biomedicine in Community Healthcare	3		3
BBM-314	Drug Design and Discovery	3		3
BBM-315	Bioengineering and Biomaterials (Theory)	3		4
BBML-316	Bioengineering and Biomaterials (Lab)		1	
BBM-317	Bio-Pharmaceuticals	3		3
Total Credit hours		15	2	17

Semester 7				
BBM-401	Biomedicine in Clinical Practice	3		3
BBM-402	Pharmacogenomics	3		3
BBM-403	Molecular Genetics and Gene Therapy	3		3
BBM-404	Lifestyle Medicine	3		3
BBM-405	Bioethics and Research Innovations	3		3
Total Credit hours		15		15
Semester 8				
BBM-411	Artificial Intelligence in Biomedicine	3		3
BBM-412	Digital Health	3		3
BBM-413	Translational Medicine and Stem Cell Therapy	3		3
BBM-414	Nanomedicine	3		3
BBM-415	Capstone Project		3	3
Total Credit hours		12	3	15