

## BS Biochemistry

Course Title	Course Code	Course Type	Credit Hour
Semester 1			
<u>GEN(NS)</u>		General	<u>3</u>
Functional English	GENG-101	General	<u>3</u>
Civics and Community Engagement	GCCE-101	General	<u>2</u>
Islamic Studies / Ethics (for Non-Muslims)	GISL-101 / GETH-101	General	<u>2</u>
Cell Biology	BCBT-101	Major	<u>3</u>
Introduction to Biochemistry	BC-101	Major	<u>3</u>
Tarjuma-e-Quran	HQ-001	Compulsory	<u>0</u>
Physical Chemistry		Major	<u>3</u>
			<b>Total Credit Hours 19</b>
Semester 2			
<u>GEN(AH)</u>		General	<u>2</u>
Quantitative Reasoning (I)	GQR-101	General	<u>3</u>
Entrepreneurship	GENT-101	General	<u>2</u>
Ideology and Constitution of Pakistan	GICP-101	General	<u>2</u>
Principles of Genetics	BCBT-102	Major	<u>3</u>
Elements of Biotechnology	BT-101	Major	<u>3</u>
Tarjuma-e-Quran	HQ-002	Compulsory	<u>1</u>
			<b>Total Credit Hours 16</b>
Semester 3			
Applications of Information and Communication Technologies	GICT-201	General	<u>3</u>
Expository Writing	GENG-201	General	<u>3</u>
Nutritional Biochemistry	BC-203	Major	<u>3</u>
Microbiology	BCBT-203	Major	<u>3</u>
Carbohydrates and Lipids	BC-201	Major	<u>3</u>
Tarjuma-e-Quran	HQ-003	Compulsory	<u>0</u>
Organic Chemistry		Interdisciplinary	<u>3</u>
			<b>Total Credit Hours 18</b>
Semester 4			
<u>GEN(SS)</u>		General	<u>2</u>
Quantitative Reasoning (II)	GQR-202	General	<u>3</u>
Molecular Biology	BCBT-201	Major	<u>3</u>
Enzymology	BC-204	Major	<u>3</u>
Proteins and Nucleic Acids	BC-202	Major	<u>3</u>
Tarjuma-e-Quran	HQ-004	Compulsory	<u>1</u>
			<b>Total Credit Hours 15</b>
Semester 5			
Human Physiology	BC-303	Major	<u>3</u>
Clinical Biochemistry	BC-301	Major	<u>3</u>
Biostatistics	BCBT-301	Major	<u>3</u>
Methods in Molecular Biology	BC-307	Major	<u>3</u>
Analytical Chemistry		Interdisciplinary	<u>3</u>
Tarjuma-e-Quran	HQ-005	Compulsory	<u>0</u>
Metabolism I	BC-305	Major	<u>2</u>
			<b>Total Credit Hours 17</b>
Semester 6			
Industrial Biochemistry	BC-306	Major	<u>3</u>
Inorganic Chemistry		Interdisciplinary	<u>3</u>
Bioenergetics	BC-304	Major	<u>3</u>
Metabolism II	BC-302	Major	<u>2</u>
Immunology	BCBT-302	Major	<u>3</u>
Tarjuma-e-Quran	HQ-006	Compulsory	<u>1</u>
Plant Biochemistry	BC-308	Major	<u>3</u>
			<b>Total Credit Hours 18</b>
Semester 7			
Capstone	BC-480	Major	<u>3</u>
Biomembranes and Cell Signaling	BC-405	Major	<u>3</u>
Scientific Inquiry & Research Methods	BCBT-401	Major	<u>3</u>
Biochemical Techniques	BC-403	Major	<u>3</u>
Environmental Biochemistry	BC-401	Major	<u>3</u>
Tarjuma-e-Quran	HQ-007	Compulsory	<u>0</u>
Elective Course-I		Major	<u>3</u>
			<b>Total Credit Hours 18</b>
Semester 8			
Capstone Project	BSBC-	Major	<u>0</u>
Biosafety, Biosecurity & Bioethics	BC-402	Major	<u>2</u>
Elective Course-IV		Major	<u>3</u>
Elective Course-III		Major	<u>3</u>
Elective Course-II		Major	<u>3</u>
Tarjuma-e-Quran	HQ-008	Compulsory	<u>1</u>
Internship	BC-400	Major	<u>3</u>
			<b>Total Credit Hours 15</b>

Signature