

BS Biotechnology

Course Title	Course Code	Course Type	Credit Hour
Semester 1			
GEN(NS)		General	3
Functional English	GENG-101	General	3
Civics and Community Engagement	GCCE-101	General	2
Islamic Studies / Ethics (for Non-Muslims)	GISL-101 / GETH-101	General	2
Elements of Biotechnology	BT. 101	Major	3
Cell Biology	BCBT-101	Major	3
Tarjuma-e-Quran	HQ-001	Compulsory	0
Physical Chemistry		Interdisciplinary	3
Total Credit Hours 19			
Semester 2			
GEN(AH)		General	2
Quantitative Reasoning (I)	GQR-101	General	3
Entrepreneurship	GENT-101	General	2
Ideology and Constitution of Pakistan	GICP-101	General	2
Biochemistry I	BT-102	Major	3
Principles of Genetics	BCBT-102	Major	3
Tarjuma-e-Quran	HQ-002	Compulsory	1
Biosafety, Biosecurity & Bioethics	BT.-104	Major	2
Total Credit Hours 18			
Semester 3			
Applications of Information and Communication Technologies	GICT-201	General	3
Expository Writing	GENG-201	General	3
Agriculture Biotechnology	BT-201	Major	3
Microbiology	BCBT-203	Major	3
Molecular Biology	BCBT-201	Major	3
Tarjuma-e-Quran	HQ-003	Compulsory	0
Organic Chemistry		Interdisciplinary	3
Total Credit Hours 18			
Semester 4			
GEN(SS)		General	2
Quantitative Reasoning (II)	GQR-202	General	3
Industrial Biotechnology	BT-206	Major	3
Health Biotechnology	BT-204	Major	3
Recombinant DNA Technology	BT-202	Major	3
Tarjuma-e-Quran	HQ-004	Compulsory	1
Internship	BT-200	Major	3
Total Credit Hours 18			
Semester 5			
Bioinformatics	Bt-303	Major	3
Ecology and Biodiversity		Interdisciplinary	3
Biostatistics	BCBT-301	Major	3
Biochemistry – II	BT-305	Major	3
Analytical Chemistry & Instrumentation	BT-301	Major	3
Tarjuma-e-Quran	HQ-005	Compulsory	0
Total Credit Hours 15			
Semester 6			
Biophysics		Interdisciplinary	3
Principles of Biochemical Engineering	BT-306	Major	3
Methods in Molecular Biology	BT-304	Major	3
Immunology	BCBT-302	Major	3
Genomics & Proteomics	BT-302	Major	3
Tarjuma-e-Quran	HQ-006	Compulsory	1
Total Credit Hours 16			
Semester 7			
Environmental Biotechnology	BT-407	Major	3
Artificial Intelligence in Biotechnology	BT-405	Major	2
Scientific Inquiry and Research Methods	BCBT-401	Major	3
Microbial Biotechnology	BT-401	Major	3
Capstone	BT-480	Major	3
Tarjuma-e-Quran	HQ-007	Compulsory	0
Elective Course-I		Major	3
Total Credit Hours 17			
Semester 8			
Elective Course-IV		Major	3
Elective Course-III		Major	3
Elective Course-II		Major	3
Nanobiotechnology	BT-404	Major	3
Food Biotechnology	BT-402	Major	3
Tarjuma-e-Quran	HQ-008	Compulsory	1
Total Credit Hours 16			

