



SHAHEED BENAZIR BHUTTO WOMEN UNIVERSITY PESHAWAR

SCHEME OF STUDIES OF BS -4 -YEAR PROGRAM BIOCHEMISTRY (MAJOR) (SESSION 2025 & Onwards)

Semester	Category	Course Codes	Course Title	Lectures	Lab	Cr. Hrs
Semester 1	Art & Humanities	AD-305	Basics of Art	2	0	2
	Ideology and Constitution of Pakistan	PST-313	Ideology and Constitution of Pakistan	2	0	2
	Interdisciplinary/Allied	MB-301	Introduction to Microbiology	3	1	4
	Functional English	ENG-303	Functional English	3	0	3
	Major I	BCHM-302	Introductory Biochemistry	2	1	3
	Major II	BIT-303	Cell Biology	2	1	3
			Total	14	3	17
Semester 2	Social Sciences	MS-307	Essential of management	2	0	2
	Expository Writing	ENG-304	Expository Writing	3	0	3
	Interdisciplinary/Allied	BIT-311	Essential of Genetics	3	1	4
	Islamic Studies/Religious Studies/Ethics	ISL-301	Islamic Education/Religious Education	2	0	2
	General Course	PST-323	Pakistan Studies	2	0	2
	Major III	BCHM-313	Carbohydrates & Lipids	3	1	4
			Total	15	2	17
Semester 3	Quantitative Reasoning (QR I)	MTH-401	Quantitative Reasoning QR I	3	0	3
	Application of Information and Communication Technologies.	CSC-308	Application of Information and Communication Technologies	2	1	3
	Natural Science	BIT- 414	Climate Change and Human Health	3	0	3
	Entrepreneurship	MS-309	Introduction to Entrepreneurship	2	0	2
	General Course	ISL-325	Fehm-e-Quran-I/ Understanding Quran-I/ Any General Course for Non-Muslims	1	0	1
	Major IV	BCHM-413	Amino acids and Proteins	2	1	3
	Major V*	BCHM-414	Metabolism I	3	0	3
			Total	16	2	18
Semester 4	Civic and Community Engagement	PSC-418	Civic and Community Engagement	2	0	2
	Quantitative Reasoning (QR II)	MTH-402	Quantitative Reasoning QR II	3	0	3
	General Course	ISL-325	Fehm-e-Quran-II/ Understanding Quran-II Any General Course for Non-Muslims	1	0	1

	Major VI	BIT-413	Molecular Biology	2	1	3
	Major VII	BCHM-417	Enzymology	2	1	3
	Major VIII	BCHM-418	Human Physiology	3	0	3
	Major IX	BCHM-419	Metabolism II	3	0	3
			Total	15	2	18
Semester 5	Interdisciplinary/Allied Course	BIT-301	Principles of Biotechnology	3	1	4
	Interdisciplinary/Allied Course	STAT-401	Biostatistics	3	0	3
	Major X	BI-527	Computational Biochemistry	2	1	3
	Major XI	BCHM-513	Plant Biochemistry	3	0	3
	Major XII	BCHM-515	Clinical Biochemistry	2	1	3
			Total	13	3	16
Semester 6	Major XIII	CHM-651	Chemistry of Natural product	3	0	3
	Major XIV	BCHM-517	Industrial Biochemistry	2	1	3
	Major XV	BCHM-518	Nutritional Biochemistry	2	1	3
	Major XVI	BCHM-519	Biosafety and Bioethics	2	1	3
	Major XVII	BCHM-520	Bioenergetics	3	0	3
	Major XVIII	BCHM-521	Pharmacology	3	0	3
			Total	15	3	18
Semester 7	Internship (Mandatory)	BCHM-698	Internship (Mandatory)	3	0	3
	Major XIX (Elective I)	BCHM-617	Genomics	3	0	3
	Major XX	BCHM-612	Biomembranes & Cell Signaling	3	0	3
	Major XXI	BCHM-641	Environmental Biochemistry	2	1	3
	Major XXII	BCHM-642	Biochemical techniques	1	2	3
	Capstone Research Project OR Capstone Project + Optional Course	BCHM 699/	Capstone Research Project (Mandatory) or Optional Course for those who opted for Capstone Project		3	3
				3 (optional course)		
			Total	12	3	18
Semester 8	Major XXII (Elective II)	MB-503	General Immunology	3	1	4
	Major XXIII	BCHM-643	Methods in Molecular Biology	1	2	3
	Major XXIV	BCHM-616	Cancer Biology	3	0	3
	Major XXV	BCHM-620	Cell and tissue culture	3	0	3
	Capstone Research Project OR Capstone Project + Optional Course	BCHM 699/	Capstone Research Project Optional Course for those who opted for Capstone Project		3	3
				3 (optional course)		
			Total	13	3	16

* An optional subject for the students who opt only capstone project and having a CGPA less than 3 will select an optional subject from the list below. **Total credit hours: 138**

SOS FOR MS PROGRAM SESSION 2025 ONWARDS IN DEPARTMENT OF BIOCHEMISTRY

For MS program session 2025 onwards in Biochemistry, Course Codes, and scheme of studies for program are classified as:

1st Semester

S.NO	SEMESTER	COURSE TITLE	COURSE CODE	Theory	Practical	CREDIT HOURS
1.	1 st	Fehm-e-Quran-I/ Understanding Quran-I Any General Course for Non- Muslim	ISL-325	1	0	1
		Core I	BCHM-	3	0	3
2.		Core II	BCHM-	3	0	3
3.		Elective I	BCHM-	3	0	3
4.		Elective II	BCHM-	3	0	3
Total Credit Hours				13		13

2nd Semester

S.N O	SEMESTER	COURSE TITLE	COURSE CODE	Theory	Practical	CREDIT HOURS
1.	2 nd	Fehm-e-Quran-II/ Understanding Quran-II Any General Course for Non-Muslim	ISL	1	0	1
		Core III	BCHM-	3	0	3
2.		Core IV	BCHM-	3	0	3
3.		Elective III	BCHM-	3	0	3
4.		Elective IV	BCHM-	3	0	3
	Total Credit Hours			13	0	13

3rd and 4th semester will comprise of Research Project and Thesis of 06 credit hours with course code BCHM-799.

SOS FOR PHD PROGRAM SESSION 2025 ONWARDS IN THE DEPARTMENT OF BIOCHEMISTRY

For PHD program session 2025 onwards in Biochemistry, Course Codes, and scheme of studies for program are classified as:

1st Semester

S.NO	SEMESTE R	COURSE TITLE	COURSE CODE	Theory	CREDIT HOURS
1.	1 st	Fehm-e-Quran-I/ Understanding Quran-I Any General Course for Non- Muslim	ISL-325	1	1
2.		Core 1	BCHM-	3	3
3.		Elective I	BCHM-	3	3
4.		Elective II	BCHM-	3	3
Total Credit Hours				10	10

2nd Semester

S.NO	SEMESTER	COURSE TITLE	COURSE CODE	Theory	CREDIT HOURS
1.	2 nd	Fehm-e-Quran-II/ Understanding Quran-II Any General Course for Non- Muslim	ISL-325	1	1
2.		Core II	BCHM	3	3
3.		Elective III	BCHM	3	3
4.		Elective IV	BCHM	3	3
	Total Credit Hours			10	10