

# BS (4 Years)

Bachelor of Science  
in Biochemistry

(4 Years)  
8 Semesters

Total Credit Hours 132

## Eligibility Criteria

At least 45% marks or 2<sup>nd</sup> division in  
F.Sc, Pre-Medical/A-Level (Biology, Chemistry, Physics)  
or equivalent.

## Scheme of Studies BS Biochemistry

SEMESTER	COURSE TITLE	CR. HRS
1 <sup>st</sup>	English-I	3(3+0)
	Pakistan Studies	3(3+0)
	Mathematics I	3(3+0)
	Introduction to Sociology	3(3+0)
	Organic Chemistry	3(2+1)
	Introductory Biochemistry	3(2+1)
<b>Total Credit Hours</b>		<b>18</b>
SEMESTER	COURSE TITLE	CR. HRS
2 <sup>nd</sup>	English-II	3(3+0)
	Islamic studies/Ethics	3(3+0)
	Inorganic Chemistry	3(2+1)
	Mathematics-II	3(3+0)
	Microbiology	3(2+1)
	Carbohydrates & Lipids	3(2+1)
<b>Total Credit Hours</b>		<b>18</b>
SEMESTER	COURSE TITLE	CR. HRS
3 <sup>rd</sup>	English-III	3(3+0)
	Introduction to Computers	3(2+1)
	Physical Chemistry	3(2+1)
	Genetics	3(3+0)
	Proteins & Nucleic Acids	3(2+1)
	Cell Biology	3(2+1)
<b>Total Credit Hours</b>		<b>18</b>

Semester	COURSE TITLE	CR. HRS
4 <sup>th</sup>	Introduction to Statistics	3(3+0)
	Marketing & Management	3(3+0)
	Analytical Chemistry	3(2+1)
	Human Physiology	3(3+0)
	Enzymology	3(2+1)
	Biosafety & Bioethics	3(2+1)
<b>Total Credit Hours</b>		<b>18</b>
Semester	COURSE TITLE	CR. HRS
5 <sup>th</sup>	Metabolism I	3(3+0)
	Molecular Biology	3(3+0)
	Nutritional Biochemistry	3(2+1)
	Bioenergetics	3(3+0)
	Environmental Biochemistry	3(2+1)
<b>Total Credit Hours</b>		<b>15</b>
Semester	COURSE TITLE	CR. HRS
6 <sup>th</sup>	Metabolism II	3(3+0)
	Biochemical Techniques	3(2+1)
	Endocrinology	3(3+0)
	Immunology	3(2+1)
	Recombinant DNA Technology	3(3+0)
<b>Total Credit Hours</b>		<b>15</b>
Semester	COURSE TITLE	CR. HRS
7 <sup>th</sup>	Research Planning & Scientific Writing	3(3+0)
	Biomembranes & Cell Signaling	3(3+0)
	Clinical Biochemistry	3(2+1)
	Optional Course-I	3(3+0)
	Optional Course-II	3(3+0)
<b>Total Credit Hours</b>		<b>15</b>
Semester	COURSE TITLE	CR. HRS
8 <sup>th</sup>	Protein Chemistry	3(3+0)
	Nucleic Acid	3(2+1)
	Research and Thesis/ Literature Review Report/One other optional courses	3(3+0)
	Optional Course-III	3(3+0)
	Optional Course-IV	3(3+0)
<b>Total Credit Hours</b>		<b>15</b>