

## THE BEGUM NUSRAT BHUTTO WOMEN UNIVERSITY, SUKKUR

#### **Scheme of Studies**

### **BS Genetics (4 Years)**

Course Code	First Year First Semester	Credit Hours	Pre Requisites
ECC101	English Composition & Comprehension	3+0	None
PST101	Ideology & Constitution of Pakistan	2+0	None
HWS 201	Health and Wellness	3+0	None
OCH 101	Organic Chemistry	2+1	None
PHS101	Physiology I	2+1	None
CBT 101	Cell Biology	2+1	None
	Credit hours	17	
	Second semester		
CSK101	Communication skills	3+0	None
ISL101	Islamic Studies/Ethics	2+0	None
MTH350	Biomathematics	3+0	None
ICH 101	Inorganic Chemistry	2+1	None
GEN 202	Principles of Genetics	2+1	None
PHS102	Physiology II	2+1	None
	Credit Hours	17	

Course Code	Second Year	Credit Hours	Pre Requisites
	Third Semester		
TWP201	Technical writing & presentation skills	3+0	None
ITC101	Introduction to information and communication technologies	2+1	None



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	Credit Hours	18	
GEN 201	Molecular Genetics	2+1	None
BCH 202	Biochemistry II	2+1	Biochemistry I
ACH 201	Analytical Chemistry & Instrumentation	2+1	None
BPH 201	Biological Physics	3+0	None
MTH202	Probability & Biostatistics	3+0	None
MBY 101	Microbiology	2+1	None
	Fourth Semester		
	Credit Hours	18	
PHS 203	Physiology III	2+1	None
BCH 201	Biochemistry I	2+1	None
SSC101	Sociology	3+0	None
PCH 201	Physical Chemistry	3+0	None

Course Code	Third Year	Credit Hours	Pre Requisites
	Fifth Semester		
BTY 301	Introduction to Biotechnology	2+1	None
GEN 301	Principles of Breeding	3+0	None
MOB 302	Methods in Molecular Biology	1+2	None
GEN 302	Microbial Genetics	2+1	None
BIN 301	Bioinformatics	1+2	None
	Credit Hours	15	
	Sixth Semester		
GRC 301	Genetic Resources & Conservation	3+0	None
GEN 301	Human Genetics	2+1	None



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GEN 302	Population Genetics	2+1	None
GEN 303	Evolution and Genetics	3+0	None
GEN 304	Physiological Genetics	3+0	None
GEN 305	Cytogenetics	3+0	
	Credit Hours	18	

Seventh semester	Credit Hours	
Developmental Genetics	3+0	None
Research Methodology & Skill Enhancement	3+0	None
Genomics and Proteomics	3+0	None
Report Writing	3+0	None
Fermentation	2+1	None
Special Paper	3+0	None
Credit Hours	18	
Eighth Semester		
Immunogenetics	3+0	None
Genetic Engineering	3+0	None
Biosafety and Bioethics	3+0	None
Research	6	None
Credit Hours	15	
Total Credit Hours	136	
	Research Methodology & Skill Enhancement  Genomics and Proteomics  Report Writing  Fermentation  Special Paper  Credit Hours  Eighth Semester  Immunogenetics  Genetic Engineering  Biosafety and Bioethics  Research  Credit Hours  Total Credit Hours	Research Methodology & Skill Enhancement  Genomics and Proteomics  Report Writing  Fermentation  Special Paper  Credit Hours  Eighth Semester  Immunogenetics  Genetic Engineering  Biosafety and Bioethics  Research  Credit Hours  15

Special Paper I & II 3 (0+0) Departments will offer special papers/courses according to the expertise available. (Each special paper will comprise of 3 credit hours and the codes will be as defined in the curriculum of respective departments).