

BS (4 Years) Botany

Scheme of Studies

Course Title	Course Code	Course Hours
SEMESTER-I		
Islamiat / Ethics	ISE-111	2
English-I (Language in Use)	ENG-111	3
Computer (Introduction and Applications)	COMP-111	3
Botany-I (Plant Diversity)	BOT-101	3
Botany Lab-I (Plant Diversity)	BOT-102	1
Zoology-I (Invertebrate Diversity)	ZOOL-101	3
Zoology Lab-I (Invertebrate Diversity)	ZOOL-102	1
Chemistry-I (Physical Chemistry)	CHEM-101	3
Chemistry Lab-I (Physical Chemistry)	CHEM-102	1
Semester's Total Credits		20
SEMESTER-II		
Pak Studies	PST-111	2
English-II (Academic Reading and Writing)	ENG-112	3
Elementary Mathematics-I (Algebra)	MATH-111	3
Botany-II (Plant Systematic Anatomy & Development Theory)	BOT-103	3
Botany II (Plant Systematic Anatomy & Development Theory)	BOT-104	1
Zoology-II (Chordate Diversity)	ZOOL-103	3
Zoology- Lab-II (Chordate Diversity)	ZOOL-104	1
Chemistry-II (Inorganic Chemistry)	CHEM-103	3
Chemistry Lab-II (Inorganic Chemistry)	CHEM-104	1
Semester's Total Credits		20
SEMESTER-III		
English-III (Communication Skills)	ENG-211	3
Elementary Mathematics-II (Calculus)	MATH-211	3
Botany-III (Cell Biology, Genetics and Evolution)	BOT-201	3
Botany Lab-III (Cell Biology, Genetics and Evolution)	BOT-202	1
Zoology-III (Biochemistry)	ZOOL-201	3
Zoology Lab-III (Biochemistry)	ZOOL-202	1
Chemistry-III (Organic Chemistry)	CHEM-201	3
Chemistry Lab-III (Organic Chemistry)	CHEM-202	1
Semester's Total Credits		18
SEMESTER-IV		
English-IV (English for Practical Aims)	ENG-212	3
Introduction to Sociology	SOC-211	3
Botany-III (Plant Physiology and Ecology)	BOT-203	3
Botany Lab-IV (Plant Physiology and Ecology)	BOT-204	1
Zoology-IV (Physiology)	ZOOL-203	3
Zoology Lab-IV (Physiology)	ZOOL-204	1
Chemistry-IV (General Chemistry)	CHEM-203	3
Chemistry Lab-IV (General Chemistry)	CHEM-204	1
Semester's Total Credits		18
SEMESTER-V		
Higher Fungi	BOT-301	3
Higher Fungi Lab	BOT-302	1
Microbial and Molecular Genetics	BOT-303	3
Microbial and Molecular Genetics Lab	BOT-304	1
Evolutionary Trends in Tracheophytes	BOT-305	3
Evolutionary Trends in Tracheophytes Lab	BOT-306	1
Environmental Biology	BOT-307	3
Environmental Biology Lab	BOT-308	1
Semester's Total Credits		16

SEMESTER-VI		
Plant Anatomy (Advance Course)	BOT-311	3
Plant Anatomy (Advance Course) Lab	BOT-312	1
Gene Cloning (Advance Course)	BOT-313	3
Gene Cloning (Advance Course) Lab	BOT-314	1
Plant Tissue Culture (Advance course)	BOT-315	3
Plant Tissue Culture Lab	BOT-316	1
Palynology (Advance course)	BOT-317	3
Palynology Lab	BOT-318	1
Laboratory Techniques	BOT-319	1
Seminar	BOT-320	1
Semester's Total Credits		18
SEMESTER-VII		
Air Pollution, its Impacts and Control	BOT-401	3
Air Pollution, its Impacts and Control (Lab)	BOT-402	1
Biohazards, Biosafety, Bioethics	BOT-403	3
Biohazards, Biosafety, (Lab)	BOT-404	1
Plant Nutrition and Soil Fertility	BOT-405	3
Plant Nutrition and Soil Fertility (Lab.)	BOT-406	1
Biodegradation and Bioremediation	BOT-407	3
Biodegradation and Bioremediation (Lab.)	BOT-408	1
Semester's Total Credits		16
SEMESTER-VIII		
Microbes, Man and the Environment	BOT-409	3
Microbes, Man and the Environment (Lab.)	BOT-410	1
Water Pollution, its Management and Control	BOT-411	3
Water Pollution, its Management and Control (Lab.)	BOT-412	1
Challenges of a Changing Earth	BOT-413	3
Challenges of a Changing Earth (Lab.)	BOT-414	1
Microbiology	BOT-415	3
Microbiology (Lab.)	BOT-416	1
Semester's Total Credits		16

The research students will follow the following scheme of studies for the 7th and 8th semesters.

SEMESTER-VII		
Research Thesis	BOT-400	---
Select any three courses from the following		
Air Pollution, its Impacts and Control	BOT-401	3
Air Pollution, its Impacts and Control (Lab)	BOT-402	1
Biohazards, Biosafety, Bioethics	BOT-403	3
Biohazards, Biosafety, (Lab)	BOT-404	1
Plant Nutrition and Soil Fertility	BOT-405	3
Plant Nutrition and Soil Fertility (Lab)	BOT-406	1
Biodegradation and Bioremediation	BOT-407	3
Biodegradation and Bioremediation (Lab)	BOT-408	1
Semester's Total Credits		12
SEMESTER-VIII		
Research Thesis	BOT-400	6
Select any three courses from the following		
Microbes, Man and the Environment	BOT-409	3
Microbes, Man and the Environment (Lab)	BOT-410	1
Water Pollution, its Management and Control	BOT-411	3
Water Pollution, its Management and Control (Lab)	BOT-412	1
Challenges of a Changing Earth	BOT-413	3

Challenges of a Changing Earth (Lab)	BOT-414	1
Microbiology	BOT-415	3
Microbiology (Lab)	BOT-416	1
Semester's Total Credits		18