

SCHEME OF STUDIES FOR BS BOTANY (FOUR YEARS DEGREE PROGRAM)

2022-2025			2024-2027		
Existing			Proposed / Revised		
SEMESTER I			SEMESTER I		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
ZOOL-301	Animal Diversity-I (Moved to semester III)	4(3-1)	FA-310	Introduction to Arts and Humanities (New)	2(2-0)
ENG-301	Composition And Communication Skills	3(3-0)	ENG-313	Functional English	3(3-0)
MATH-301	Elementary Mathematics	3(3-0)	MATH-408	Quantitative Reasoning- I	3(3-0)
SSH-302	Pakistan Studies	2(2-0)	SSH-303	Ideology and Constitution of Pakistan	2(2-0)
CHEM-310	Fundamentals of Inorganic Chemistry	4(3-1)	CHEM-310	Fundamentals of Inorganic Chemistry	4(3-1)
BOT-301	Diversity of Plants	4(3-1)	BOT-301	Diversity of Plants	4(3-1)
	Total	20(17-3)	TGM-301	Tutorial Group Meeting for Soft Skills	No-Credit
				Total	18(16-2)
SEMESTER II			SEMESTER II		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
ZOOL-302	Animal Diversity-II (Moved to Semester IV)	4(3-1)	SOC-311	Introduction to Sociology (New)	2(2-0)
ENG-303	English-I (Functional English)	2(2-0)	ENG-314	Expository Writing	3(3-0)
STAT-301	Introductory Statistics	4(4-0)	STAT-408	Quantitative Reasoning- II	3(3-0)
IS-401/SSH-402	Islamic Studies / Ethics (Moved to Semester III)	3(3-0)	BMS-402	Entrepreneurship (New)	2(2-0)
CHEM-311	Fundamentals of Organic Chemistry	4(3-1)	CHEM-311	Fundamentals of Organic Chemistry	4(3-1)
BOT-302	Plant Systematics, Anatomy and Embryology	4(3-1)	BOT-302	Plant Systematics, Anatomy and Embryology	4(3-1)
			TGM-302	Tutorial Group Meeting for Soft Skills	No-Credit
	Total	21(18-3)		Total	18(16-2)

SEMESTER III			SEMESTER III		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
ENG-304	English II (Communication Skills) (Dropped)	2(2-0)	IS-401/SSH-306	Islamic Studies/ Ethics	2(2-0)/ 2(2-0)
CS-305	Introduction to Information and Communication Technologies	3(2-1)	CS-305	Applications of Information and Communication Technologies	3(2-1)
IS-402/SSH-301	ترجمة القرآن/Pakistan Studies: Past and Present	1(1-0)	IS-402/SSH-403	ترجمة القرآن/Interfaith Harmony	No-Credit
ZOOL-601	Conservation Biology (Dropped)	4(3-1)	ZOOL-301	Animal Diversity-I	4(3-1)
CHEM-408	Fundamentals of Physical Chemistry (Dropped)	4(3-1)	STAT-301	Introductory Statistics	4(4-0)
BOT-403	Cell Biology, Genetics and Evolution	4(3-1)	BOT-403	Cell Biology, Genetics and Evolution	4(3-1)
BIOCHEM-300	Essentials of Biochemistry (Dropped)	3(3-0)	BIOTECH-402	Fundamentals of Biotechnology	3(2-1)
			TGM-401	Tutorial Group Meeting for Soft Skills	No-Credit
	Total	21(17-4)		Total	20(16-4)
SEMESTER IV			SEMESTER IV		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
IS-403	روحانیت	1(1-0)	IS-403	روحانیت	No-Credit
BIOCHEM-303	Biochemistry of Metabolism (Dropped)	3(3-0)	PY-307	Fundamentals of Natural Sciences	3(2-1)
BIOCHEM-307	Biochemical Analysis (Dropped)	3(1-2)	EDU-306	Civics and Community Engagement	2(2-0)
STAT-404	Introduction to Regression and Analysis of Variance (Replaced with a different course in Semester III)	4(3-1)	ZOOL-302	Animal Diversity-II	4(3-1)
			BIOCHEM-511	Plant Biochemistry	3(3-0)
BOT-404	Plant Physiology and Ecology	4(3-1)	BOT-404	Plant Physiology and Ecology	4(3-1)
BOT-405	Biodiversity and Conservation	4(3-1)	BOT-405	Biodiversity and Conservation	4(3-1)
			TGM-402	Tutorial Group Meeting for Soft Skills	No-Credit
	Total	19(14-5)		Total	20(16-4)

SEMESTER V			SEMESTER V		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
BOT-504	Bacteriology and Virology	2(2-0)	BOT-504	Phycology and Bryology	3(2-1)
BOT-505	Phycology and Bryology	2(2-0)	BOT-505	Diversity of Vascular Plants	2(2-0)
BOT-506	Mycology And Plant Pathology	2(2-0)	BOT-506	Plant Systematics	2(2-0)
BOT-507	Diversity of Vascular Plants	2(2-0)	BOT-507	Plant Anatomy	2(2-0)
BOT-508	Plant Systematics	2(2-0)	BOT-508	Plant Morphology, Systematics and Anatomy Lab	2(0-2)
BOT-509	Environmental Biology	2(2-0)	BOT-509	Advanced Plant Physiology	3(2-1)
BOT-510	Lower Organisms Morphology Lab	2(0-2)	BOT-510	Autecology	2(2-0)
	Elective-I	3(2-1)	TGM-501	Tutorial Group Meeting for Soft Skills	No-Credit
	Total	17(14-3)		Total	16(12-4)
SEMESTER VI			SEMESTER VI		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
BOT-511	Plant Anatomy	2(2-0)	BOT-511	Environmental Biology	2(2-0)
BOT-512	Introductory Genetics	2(2-0)	BOT-512	Synecology	2(2-0)
BIOCHEM-511	Plant Biochemistry (Moved To Semester-IV)	3(3-0)	BOT-513	Plant Ecology and Environmental Biology Lab	2(2-0)
BOT-513	Autecology	2(2-0)	BOT-514	Introductory Genetics	2(2-0)
BOT-514	Plant Physiology	2(2-0)	BOT-515	Bacteriology and Virology	3(2-1)
BOT-515	Plant Morphology, Systematics and Anatomy Lab	2(0-2)	ELECTIVE-II	Elective Course-I	3(2-1)
BOT-516	Plant Physiology, Metabolism and Nutrition Lab	2(0-2)	ELECTIVE-III	Elective Course-II	3(2-1)
	Elective-II	3(2-1)	TGM-502	Tutorial Group Meeting for Soft Skills	No-Credit
	Total	18(13-5)		Total	17(14-3)

SEMESTER VII			SEMESTER VII		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
BOT-601	Molecular Biology	2(2-0)	BOT-601	Plant Mineral Nutrition and Growth Regulation	2(2-0)
BOT-602	Plant Metabolism	2(2-0)	BOT-602	Plant Metabolism	2(2-0)
BOT-603	Synecology	2(2-0)	BOT-603	Plant Metabolism And Mineral Nutrition Lab	2(0-2)
BOT-604	Plant Mineral Nutrition and Growth Regulation	2(2-0)	BOT-604	Molecular Biology	2(2-0)
BOT-605	Advanced Genetics	2(2-0)	BOT-605	Advanced Genetics	2(2-0)
BOT-606	Plant Ecology and Environmental Biology Lab	2(2-0)	BOT-606	Molecular Biology, Genetics and Bioinformatics Lab	2(0-2)
BOT-607	Molecular Biology, Genetics And Bioinformatics Lab	2(0-2)	BOT-607	Mycology and Plant Pathology	3(2-1)
	Elective-III	3(2-1)	BOT-608	Ethnobotany	3(2-1)
			TGM-601	Tutorial Group Meeting for Soft Skills	No-Credit
	Total	17(14-3)		Total	18(14-4)
SEMESTER VIII			SEMESTER VIII		
Course No.	Title of the Course	Credit Hours	Course No.	Title of the Course	Credit Hours
BOT-621	Internship/ Technical Report	6(0-6)	BOT-620	Seminar	1(1-0)
			BOT-621	Internship	3(0-3)
			BOT-622	Capstone Project	3(0-3)
	Total	6(0-6)		Total	07(1-6)
	Grand Total	139(107-32)		Grand Total	134(105-29)