

SCHEME OF STUDIES BS(Computer Science)

w.e.f.WINTER SEMESTER 2024-2025			
Course No.	Title of Course	Credit Hours	Type
FIRST SEMESTER			
CS-305	Applications of Information and Communication Technologies	3(2-1)	General Education
MATH-408	Quantitative Reasoning (I)	3(3-0)	General Education
FA-310	Introduction to Arts and Humanities	2(2-0)	General Education
SSH-303	Ideology and Constitution of Pakistan	2(2-0)	General Education
ENG-313	Functional English	3(3-0)	General Education
IS-401/SSH-306	Islamic Studies/Basic Ethics	2(2-0)	General Education
SOC-311	Introduction to Sociology	2(2-0)	General Education
PY-305	Basic Electronic	3(2-1)	General Education
TGM-301	Tutorial Group Meeting for Soft Skills	NCC	Compulsory
Total CreditHours		20(18-2)	
SECOND SEMESTER			
CS-306	Digital Logic Design	3(2-1)	Major
PY-307	Fundamentals of Natural Sciences	3(2-1)	Allied
CS-308	Programming Fundamentals	3(2-1)	Major
MATH-404	Linear Algebra	3(3-0)	Allied
STAT-408	Quantitative Reasoning (Ii)	3(3-0)	General Education
ENG-314	Expository Writing	3(3-0)	General Education
MATH-301	Elementary Mathematics	3(3-0)	General Education
IS-401/ SSH-306	Islamic studies / Ethics	2(2-0)	General Education
TGM-302	Tutorial Group Meeting for Soft Skills	NCC	Compulsory
Total CreditHours		23(20-3)	
THIRD SEMESTER			
EDU-306	Civics and Community Engagement	2(2-0)	General Education
SE-401	Software Engineering	3(2-1)	Major
CS-407	Operating Systems	3(2-1)	Major
MATH-407	Multivariable Calculas	3(3-0)	Allied
CS-409	Object oriented Programming	3(2-1)	Major

BBA-412	Financial management-I	3(3-0)	General Education
IS-403/SSH	روحانیت /MoralPhilosophy	1(1-0)NCC	Compulsory
TGM-401	Tutorial Group Meeting for Soft Skills	NCC	Compulsory
Total Credit Hours		17(14-3)	
FOURTH SEMESTER			
BMS-402	ENTREPRENEURSHIP	2(2-0)	General Education
IS-402	ترجمہ قرآن	No-Credit	Major
STAT-402	STATISTICSANDPROBABILITY	3(2-1)	Allied
CS-406	DATACOMMUNICATIONSAND NETWORKS	3(2-1)	Major
CS-408	DATABASE SYSTEMS	3(2-1)	Major
CS-410	DATASTRUCTURESANDALGORITHMS	3(2-1)	Major
CS-412	VISUALPROGRAMMING	3(2-1)	Major
TGM-402	Tutorial Group Meeting for Soft Skills	NCC	Compulsory
Total Credit Hours		17(12-5)	
FIFTH SEMESTER			
CS-503	Design and analysis of Algorithm	3(2-1)	Major
CS-507	Computer Organization and Assembly Language	3(2-1)	Major
IT-507	Database Administration and Management	3(2-1)	Major
CS-509	Theory of Automata	3(2-1)	Major
CS-511	Artificial Intelligence	3(2-1)	Major
CS-513	Web Programming	3(2-1)	Major
TGM-501	Tutorial Group Meeting for Soft Skills	NCC	Compulsory
Total CreditHours		18(12-6)	
SIXTH SEMESTER			
CS-502	Data Encryption And Security	3(2-1)	Major
CS-504	Digital Image Processing	3(2-1)	Major
CS-506	Big Data Analytics	3(2-1)	Major
CS-508	Cloud Computing	3(2-1)	Major
CS-512	Mobile Application Development	3(2-1)	Major
SE-514	Software Quality Engineering	3(2-1)	Major
TGM-502	Tutorial Group Meeting for Soft Skills	NCC	Compulsory

TotalCreditHours		18(12-6)	
SEVENTH SEMESTER			
IT-601	HUMAN COMPUTER INTERACTION	3(2-1)	Major
CS-603	COMPILER CONSTRUCTION	3(2-1)	Major
CS-605	DIGITAL SIGNAL PROCESSING	3(2-1)	Major
CS-611	PARALLEL AND DISTRIBUTED COMPUTING	3(2-1)	Major
CS-613	NUMERICAL ANALYSIS	3(2-1)	Major
BINFO-607	SCIENTIFIC WRITING	3(0-3)	Allied
CS-621	FINALYEAR PROJECT-I	2(0-2)	Major
TGM-601	Tutorial Group Meeting for Soft Skills	NCC	Compulsory
TotalCreditHours		20(10-10)	
EIGHTH SEMESTER			
CS-618	INTERNSHIP	2(0-2)	Major
CS-620	SEMINAR	1(1-0)	Major
CS-622	FINALYEARPROJECT-II	4(0-4)	Major
TotalCreditHours		7(1-6)	