

Course Offering
Semester: Spring 2025
Program: BS (CS)-MS (CS)

S.#	Code	Course Title	Status	Section	Pre-Req.	Co-Req.	Semester	Batch	Remarks
1.	CS1133	Introduction to Programming	Major Course	2	Nil	CS1131	1	BCS-251	
2.	CS1131	Introduction to Programming Lab	Major Course	3	Nil	CS1133	1	BCS-251	
3.	CSG1022	Ideology and Constitution of Pakistan	General Education	2	Nil	Nil	1	BCS-251	
4.	CSG1113	Functional English	General Education	2	Nil	Nil	1	BCS-251	
5.	CSG1513	Calculus and Analytical Geometry	General Education	2	Nil	Nil	1	BCS-251	
6.	CSG1612	Applications of Information and Communication Technologies	General Education	2	Nil	CSG1611	1	BCS-251	
7.	CSG1611	Applications of Information and Communication Technologies Lab	General Education	3	Nil	CSG1612	1	BCS-251	
8.	CSG1312	Applied Physics	General Education	2	Nil	CSG1311	1	BCS-251	
9.	CSG1311	Applied Physics Lab	General Education	2	Nil	CSG1312	1	BCS-251	
10.	CS1143	Object Oriented Programming	Major Course	4	CS1133	CS1141	2	BCS-243	
11.	CS1141	Object Oriented Programming Lab	Major Course	5	CS1131	CS1143	2	BCS-243	
12.	CSG1123	Expository Writing	General Education	4	CSG1113	Nil	2	BCS-243	
13.	CSG1412	Sociology	General Education	4	Nil	Nil	2	BCS-243	

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14.	CSG1573	Discrete Structures	General Education	4	CS1133	Nil	2	BCS-243	
15.	MTCS1033	Linear Algebra	Allied Courses	4	CSG1513	Nil	2	BCS-243	
16.	CSG1012	Islamic Studies/Ethics	General Education	4	Nil	Nil	2	BCS-243	
17.	CSG1010	Taleem ul Quran	General Education	4	Nil	Nil	2	BCS-243	
18.	CS2143	Data Structures	Major Course	2	Nil	Nil	3	BCS-241	
19.	CS2141	Data Structures Lab	Major Course	3	Nil	Nil	3	BCS-241	
20.	MTCS2063	Probability and Statistics	Allied Courses	2	Nil	Nil	3	BCS-241	
21.	CSG2212	Personal Grooming	General Education	2	Nil	Nil	3	BCS-241	
22.	CS2313	Introduction to Database Systems	Major Course	2	CS1143	CS2311	3	BCS-241	
23.	CS2311	Introduction to Database Systems Lab	Major Course	3	CS1141	CS2313	3	BCS-241	
24.	CS2512	Digital Logic Design	Major Course	2	Nil	Nil	3	BCS-241	
25.	CS2511	Digital Logic Design Lab	Major Course	3	Nil	Nil	3	BCS-241	Strength 30 in each section
26.	CSG2712	Entrepreneurship	General Education	2	Nil	Nil	3	BCS-241	
27.	CS2223	Software Engineering-I	Major Course	4	CS2313	Nil	4	BCS-233	
28.	CS2322	Database Management Systems	Major Course	4	CS2313	CS2321	4	BCS-233	
29.	CS2321	Database Management Systems Lab	Major Course	4	CS2311	CS2322	4	BCS-233	
30.	CS2522	Computer Organization and Assembly Language	Major Course	4	Nil	CS2521	4	BCS-233	
31.	CS2521	Computer Organization and Assembly Language Lab	Major Course	4	CS2511	CS2522	4	BCS-233	

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32.	CS2772	Computer Networks	Major Course	4	CS2143	CS2771	4	BCS-233	
33.	CS2771	Computer Networks Lab	Major Course	4	CS2141	CS2772	4	BCS-233	
34.	CSG2812	Civics and Professional Ethics	General Education	4	Nil	Nil	4	BCS-233	
35.	MTCS2053	Multi-variate Calculus	Allied Course	4	MTCS2063	Nil	4	BCS-233	
36.	CS2523	Computer Organization and Assembly Language	Core	2	CS2513	CS2521	5	BCS-231	
37.	CS2521	Computer Organization and Assembly Language Lab	Core	2	CS2511	CS2523	5	BCS-231	
38.	CS3163	Design and Analysis of Algorithms	Core	2	CS2143	Nil	5	BCS-231	
39.	CS3613	Theory of Automata and Formal Languages	Core	2	CS2143	Nil	5	BCS-231	
40.	CS3713	Introduction to Information Security and forensics	Core	2	CS3773	Nil	5	BCS-231	
41.	CS3283	Graph Algorithms	CS Supporting	2	CS2143	Nil	5	BCS-231	
42.	CS3433	Parallel and Distributed Computing	Core	3	CS2523	Nil	6	BCS-223	
43.	CS4813	Artificial Intelligence	Core	3	CS3163	CS4811	6	BCS-223	
44.	CS4811	Artificial Intelligence Lab	Core	4	CS3163	CS4813	6	BCS-223	
45.	CS3833	Theory of Programming Languages	CS Supporting	3	CS3163	Nil	6	BCS-223	
46.	CS3193	Web Application Development	Elective	3	CS2313	Nil	6	BCS-223	
47.	CS4883	Introduction to Data Science	Elective	3	CS2313	Nil	6	BCS-223	
48.	ACCS3003	Financial Accounting	Uni. Elective	3	MTCS1013	Nil	6	BCS-223	
49.	CS4623	Compiler Construction	Core	2	CS3613	Nil	7	BCS-221	
50.	CS4912	Design Project (Part-I)	Core	1	CS2223	Nil	7	BCS-221	Min 90 Credit Hours Required for

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									Registration
51.	CS3273	Human Computer Interaction	Elective	2	CS2223	Nil	7	BCS-221	
52.	HMCS2013	Professional Ethics and Legal Issues	G. Edu	2	Nil	Nil	7	BCS-221	
53.	MGCS4003	Entrepreneurship and Innovation	Uni Elective	2	Nil	Nil	7	BCS-221	
54.	CS3213	Object Oriented Analysis and Design	Elective	2	CS2313	Nil	7	BCS-221	
55.	CS4893	Penetration Testing	Elective	3	C3773	Nil	8	BCS-213	
56.	CS4924	Design Project (Part-II)	Core	1	CS4912	Nil	8	BCS-213	
57.	HMCS1033	Personal Management and Grooming	G. Edu	3	Nil	Nil	8	BCS-213	