

Course Offering
Semester: Fall 2026
Program: BS (Computer Science)

Sr.	Code	Course Title	Status	Sections	Pre-Req.	Co-Req.	Semester
1.	CS1133	Introduction to Programming	Major Course	4	Nil	CS1131	1
2.	CS1131	Introduction to Programming Lab	Major Course	5	Nil	CS1133	1
3.	CSG1513	Calculus and Analytical Geometry	General Education	4	Nil	Nil	1
4.	CSG1022	Ideology and Constitution of Pakistan	General Education	4	Nil	Nil	1
5.	CSG1612	Applications of Information and Communication Technologies	General Education	4	Nil	CSG1611	1
6.	CSG1611	Applications of Information and Communication Technologies Lab	General Education	5	Nil	CSG1612	1
7.	CSG1113	Functional English	General Education	4	Nil	Nil	1
8.	MTCS1003	Basic Mathematics	Deficiency	2	Nil	Nil	1
9.	CS1143	Object Oriented Programming	Major Course	2	CS1133	CS1141	2
10.	CS1141	Object Oriented Programming Lab	Major Course	3	CS1131	CS1143	2
11.	CSG1312	Applied Physics	General Education	2	Nil	Nil	2

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12.	CSG1311	Applied Physics Lab	General Education	2	Nil	Nil	2
13.	CSG1123	Expository Writing	General Education	2	CSG1113	Nil	2
14.	CSG1412	Sociology	General Education	2	Nil	Nil	2
15.	CSG1573	Discrete Structures	General Education	2	CS1133	Nil	2
16.	CSG1021	Fehm-ul-Quran 1	General Education	2	Nil	Nil	2
17.	CSG1012	Islamic Studies/Ethics	General Education	2	Nil	Nil	2
18.	MTCS1103	Basic Mathematics II	Deficiency	2	MTCS1003	Nil	2
19.	CS2143	Data Structures	Major	4	CS1143	CS2141	3
20.	CS2141	Data Structures Lab	Major	5	CS1141	CS2143	3
21.	CSG2212	Personal Grooming	General Education	4	Nil	Nil	3
22.	MTCS1033	Linear Algebra	Allied Course	4	CSG1513	Nil	3
23.	CS2313	Introduction to Database Systems	Major	4	CS1143	CS2311	3
24.	CS2311	Introduction to Database Systems Lab	Major	5	CS1141	CS2313	3
25.	CS2512	Digital Logic Design	Major	4	CSG1573	CS2511	3
26.	CS2511	Digital Logic Design Lab	Major	7	CSG1573	CS2512	3

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27.	CSG1031	Fehm-ul-Quran II	General Education	4	Nil	Nil	3
28.	CS2223	Software Engineering	Major	2	CS2313	Nil	4
29.	CS2322	Database Management Systems	Major	2	CS2313	CS2321	4
30.	CS2321	Database Management Systems Lab	Major	3	CS2311	CS2322	4
31.	CS2522	Computer Organization and Assembly Language	Major	2	Nil	CS2521	4
32.	CS2521	Computer Organization and Assembly Language Lab	Major	3	Nil	CS2522	4
33.	CS2772	Computer Networks	Major	2	CS2143	CS2771	4
34.	CS2771	Computer Networks Lab	Major	2	CS2141	CS2772	4
35.	CSG2812	Civics and Professional Ethics	General Education	2	Nil	Nil	4
36.	MTCS2053	Multi-variate Calculus	Allied Course	2	MTCS2063	Nil	4
37.	CS3163	Design and Analysis of Algorithms	Major	4	CS2143	Nil	5
38.	CS3613	Theory of Automata and Formal Languages	Major	4	CS1133	Nil	5
39.	CS3283	Graph Algorithms	Major	4	CSG1573	Nil	5
40.	CS3412	Operating Systems	Major	4	CS2143	CS3411	5
41.	CS3411	Operating Systems Lab	Major	4	CS2141	CS3412	5

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42.	CS3712	Introduction to information security and forensics	Major	4	CS3772	CS3711	5
43.	CS3711	Introduction to information security and forensics Lab	Major	4	CS3772	CS3712	5
44.	CS3512	Computer Architecture	Major	4	CS2522	CS3511	5
45.	CS3511	Computer Architecture Lab	Major	4	CS2521	CS3512	5
46.	CS3432	Parallel and Distributed Computing	Major	2	CS2522	CS3431	6
47.	CS3431	Parallel and Distributed Computing Lab	Major	2	CS2521	CS3432	6
48.	CS3812	Artificial Intelligence	Major	2	CS3163	CS3811	6
49.	CS3811	Artificial Intelligence Lab	Major	2	CS3163	CS3812	6
50.	HMCS3033	Technical and Business Writing	Allied Course	2	Nil	Nil	6
51.	CS3072	Numerical Computing	Major	2	CS1133	CS3071	6
52.	CS3071	Numerical Computing Lab	Major	2	CS1131	CS3072	6
53.	CS3192	Web Application Development	Major	2	CS2313	CS3191	6
54.	CS3191	Web Application Development Lab	Major	2	CS2311	CS3192	6
55.	CSG1032	Pakistan Studies	General Education	2	Nil	Nil	6
56.	CS4622	Compiler Construction	Major Course	3	CS3613	CS4621	7

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57.	CS4621	Compiler Construction Lab	Major Course	4	CS3613	CS4622	7
58.	CS4192	Mobile Application Development	Major Course	4	CS1133	CS4191	7
59.	CS4191	Mobile Application Development Lab	Major Course	5	CS1131	CS4192	7
60.	CS4912	Design Project (Part-I)	Project	1	CS2223 & 90cr.	Nil	7
61.	CS4613	Machine Learning	Elective_I	4	CS1133	Nil	7
62.	CS3272	Human Computer Interaction	Major Course	4	Nil	CS4271	7
63.	CS3271	Human Computer Interaction Lab	Major Course	5	Nil	CS4272	7
64.	CS4573	Blockchain Technology	Elective_II	3	CS1133	Nil	7
65.	CS3843	Data Security and Cryptography	Elective_V	2	Nil	Nil	8
66.	CS4924	Design Project (Part-II)	Project	1	CS4912	Nil	8
67.	HMCS1033	Personal Management and Grooming	G. Edu	2	Nil	Nil	8