

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

S.#	Code	Course Title	Status	No of Sections	Pre-Req.	Co-Req.	Semester
1.	CS1133	Introduction to Programming	Major	2	Nil	CS1131	1
2.	CS1131	Introduction to Programming Lab	Major	3	Nil	CS1133	1
3.	CSG1513	Calculus and Analytical Geometry	General	2	Nil	Nil	1
4.	CSG1022	Ideology and Constitution of Pakistan	General	2	Nil	Nil	1
5.	CSG1612	Applications of Information and Communication Technologies	General	2	Nil	Nil	1
6.	CSG1611	Applications of Information and Communication Technologies Lab	General	3	Nil	CSG1611	1
7.	CSG1113	Functional English	General	2	Nil	CSG1612	1
8.	CS1143	Object Oriented Programming	Major	4	CS1133	CS1141	2
9.	CS1141	Object Oriented Programming Lab	Major	5	CS1131	CS1143	2
10.	CSG1312	Applied Physics	General	4	Nil	Nil	2
11.	CSG1311	Applied Physics Lab	General	5	Nil	Nil	2
12.	CSG1123	Expository Writing	General	4	CSG1113	Nil	2
13.	CSG1412	Sociology	General	4	Nil	Nil	2
14.	CSG1573	Discrete Structures	General	4	CS1133	Nil	2
15.	CSG1021	Fehm-ul-Quran 1	General	4	Nil	Nil	2
16.	CSG1012	Islamic Studies/Ethics	General	4	Nil	Nil	2
17.	CS2143	Data Structures	Major	2	CS1143	CS2141	3

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18.	CS2141	Data Structures Lab	Major	2	CS1141	CS1143	3
19.	MTCS2063	Probability and Statistics	Allied	2	Nil	Nil	3
20.	CSG2212	Personal Grooming	General	2	Nil	Nil	3
21.	CS2313	Introduction to Database Systems	Major	2	CS1143	CS2311	3
22.	CS2311	Introduction to Database Systems Lab	Major	2	CS1141	CS2313	3
23.	CS2512	Digital Logic Design	Major	3	CSG1573	CS2511	3
24.	CS2511	Digital Logic Design Lab	Major	4	CSG1573	CS2512	3
25.	CSG2712	Entrepreneurship	General	2	Nil	Nil	3
26.	CS2223	Software Engineering	Major	4	CS2313	Nil	4
27.	CS2322	Database Management Systems	Major	4	CS2313	CS2321	4
28.	CS2321	Database Management Systems Lab	Major	5	CS2311	CS2322	4
29.	CS2522	Computer Organization and Assembly Language	Major	4	Nil	CS2521	4
30.	CS2521	Computer Organization and Assembly Language Lab	Major	5	Nil	CS2522	4
31.	CS2772	Computer Networks	Major	4	CS2143	CS2771	4
32.	CS2771	Computer Networks Lab	Major	5	CS2141	CS2772	4
33.	CSG2812	Civics and Professional Ethics	General	4	Nil	Nil	4
34.	MTCS2053	Multi-variate Calculus	Allied	4	MTCS2063	Nil	4
35.	CS3163	Design and Analysis of Algorithms	Major	2	CS2143	Nil	5
36.	CS3613	Theory of Automata and Formal Languages	Major	2	CSG1573	Nil	5
37.	CS3283	Graph Algorithms	Major	2	CSG1573	Nil	5
38.	CS3412	Operating Systems	Major	2	CS2143	CS3411	5
39.	CS3411	Operating Systems Lab	Major	2	CS2141	CS3412	5

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40.	CS3712	Introduction to information security and forensics	Major	2	CS3772	CS3711	5
41.	CS3711	Introduction to information security and forensics Lab	Major	2	CS3772	CS3712	5
42.	CS3512	Computer Architecture	Major	2	CS2522	CS3511	5
43.	CS3511	Computer Architecture Lab	Major	2	CS2521	CS3512	5
44.	CS3432	Parallel and Distributed Computing	Major	4	CS2522	CS3431	6
45.	CS3431	Parallel and Distributed Computing Lab	Major	4	CS2521	CS3432	6
46.	CS3812	Artificial Intelligence	Major	4	CS3163	CS3811	6
47.	CS3811	Artificial Intelligence Lab	Major	4	CS3163	CS3812	6
48.	HMCS3033	Technical and Business Writing	Allied	4	Nil	Nil	6
49.	CS3072	Numerical Computing	Major	4	CS1133	CS3071	6
50.	CS3071	Numerical Computing Lab	Major	5	CS1131	CS3072	6
51.	CS3192	Web Application Development	Major	4	CS2313	CS3191	6
52.	CS3191	Web Application Development Lab	Major	5	CS2311	CS3192	6
53.	CSG1022	Ideology and Constitution of Pakistan	General	4	Nil	Nil	6
54.	CS4623	Compiler Construction	Core	2	CS3613	Nil	7
55.	CS4912	Design Project (Part-I)	Core	1	CS2223 & 90cr.	Nil	7
56.	CS3723	Database Security	Elective_III	2	Nil	Nil	7
57.	CS4883	Introduction to Data Science	Elective_IV	2	Nil	Nil	7
58.	HMCS2013	Professional Ethics and Legal Issues	G. Edu	2	Nil	Nil	7
59.	MGCS4003	Entrepreneurship and Innovation	Uni Elective	2	Nil	Nil	7
60.	CS4793	Cloud Computing	Elective_V	4	Nil	Nil	8
61.	CS4924	Design Project (Part-II)	Core	1	CS4912	Nil	8

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62.	HMCS1033	Personal Management and Grooming	G. Edu	4	Nil	Nil	8