

Department of Computer Science

FATA University

S.No	Code	Pre-Req	Course Title	Domain	Cr. Hrs (Cont Hrs)
Semester 1					
1	CS 1xx		Programming Fundamentals	Core	4 (3-3)
2	GE 1xx		Application of Information & Communication Technologies	GER	3 (2-3)
3	GE 1xx		QR 1 (Discrete Structures)	GER	3 (3-0)
4	GE 1xx		QR 2 (Calculus and Analytical Geometry)	GER	3(3-0)
5	GE 1xx		Functional English	GER	3(3-0)
	GE 2xx		Islamic Studies	GER	2 (2-0)
				Total Cr Hrs	18 (16-6)
Semester 2					
6	CS 1xx		Object Oriented Programming	Core	4 (3-3)
7	CS 1xx		Database Systems	Core	4 (3-3)
8	CS 1xx		Digital Logic Design	Core	3 (2-3)
9	MT 1xx		Multivariable Calculus	Maths	3 (3-0)
10	MT 1xx		Linear Algebra	Maths	3 (3-0)
				Total Cr Hrs	17 (14-9)
Semester 3					
11	CS 2xx		Data Structures	Core	4 (3-3)
12	GE 4xx		Ideology and Constitution of Pakistan	GER	2 (2-0)
13	CS 2xx		Computer Organization & Assembly Language	Core	3 (2-3)
14	GE 2xx		Natural Science (Applied Physics)	GER	3 (2-3)
15	CS 2xx		Software Engineering	Core	3 (3-0)
16	MT 2xx		Probability & Statistics	Maths	3 (3-0)
				Total Cr Hrs	18 (15-9)
Semester 4					
17	CS 2xx		Computer Networks	Core	3 (2-3)
18	CS 2xx		Domain Core 1 (Theory of Automata)	Domain Core	3 (3-0)
19	CS 2xx		Domain Core 2 (Advance Database Management Systems)	Domain Core	3 (2-3)
20	CS 3xx		Domain Elective 2 (Example: Mobile Application Development 1)	Domain Elective	3 (2-3)
21	GE 1xx		Expository Writing	GER	3 (3-0)
22	CS 3xx		Operating Systems	Core	3 (2-3)
				Total Cr Hrs	18 (15-9)
Semester 5					
23					
	CS 4xx		Analysis of Algorithms	Core	3 (3-0)

24	CS 3xx		Domain Core 3 (HCI & Computer Graphics)	Domain Core	3 (2-3)
25	CS 3xx		Domain Core 4 (Computer Architecture)	Domain Core	3 (2-3)
26	CS 3xx		Domain Elective 1 (Example: Web Technologies)	Domain Elective	3 (2-3)
27	CS 3xx		Domain Core 5 (Compiler Construction)	Domain Core	3 (2-3)
28	GE 2xx		Social Science (Example: Introduction to Management)	GER	2 (2-0)
				Total Cr Hrs	17 (13-12)
Semester 6					
29	CS 2xx		Artificial Intelligence	Core	3 (2-3)
30	CS 3xx		Domain Core 6 (Parallel & Distributed Computing)	Domain Core	3 (2-3)
31	CS 3xx		Domain Elective 3 (Example: Advanced Programming/Visual Programming)	Domain Elective	3 (2-3)
32	CS 3xx		Domain Elective 4 (Example: Numerical Analysis)	Domain Elective	3 (3-0)
33	CS 3xx		Domain Elective 5 (Example Web Engineering)	Domain Elective	3 (2-3)
34	CS 3xx		Domain Elective 6 (Example: Introduction to Data Mining)	Domain Elective	3 (2-3)
				Total Cr Hrs	18 (13-15)
Semester 7					
35	CS 4xx		Final Year Project 1	Core	2 (0-6)
36			Introduction to Machine Learning	Domain Elective	3(2-3)
37	CS 4xx		Domain Elective 7 (Example: Wireless Networks)	Domain Elective	3 (3-0)
38	SS 1XX		Elective Supporting Course (Example: Introduction to Marketing)	SS	3 (3-0)
39	EN 4xx		Technical & Business Writing	EN	3 (3-0)
40	GE 4xx		Entrepreneurship	GER	2 (2-0)
				Total Cr Hrs	16 (13-9)
Semester 8					
41	CS 4xx		Final Year Project 2	Core	4 (0-12)
42			Information Security	Core	3 (2-3)
43	GE 4xx		Arts & Humanities (Professional Practices)	GER	2 (2-0)
44	GE 4xx		Civics and Community Engagement	GER	2 (2-0)
				Total Cr Hrs	11 (6-15)
				Grand Total	133