

Scheme of Studies

Semester 1		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-101	Applications of Information & Comm. Technologies	2	3	3
CS-102	Programming Fundamentals	3	3	4
CS-103	Discrete Structures	3	0	3
BSI-122	Calculus and Analytic Geometry	3	0	3
BSI-131	Functional English	3	0	3
For Pre-Medical Students Only				
BSI-110M	Maths-I (in place of BSI-122)	3	0	Non Credit
Credit Hours (Pre-Engg.)		14	6	16
Credit Hours (Pre-Medical)		11	6	13

Semester 3		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-201	Computer Organization & Assembly Language	2	3	3
CS-202	Automata Theory	3	0	3
CS-203	Data Structures	3	3	4
CS-204	Software Engineering	3	0	3
BSI-351	Statistics & Probability	3	0	3
CS-XXX**	General Education - I	2	0	2
For Pre-Medical Students Only				
BSI-112	Multivariable Calculus	3	0	3
Credit Hours (Pre-Engg.)		16	6	18
Credit Hours (Pre-Medical)		19	6	21

Semester 5		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-301	HCI & Computer Graphics	2	3	3
CS-302	Computer Networks	2	3	3
CS-303	Analysis of Algorithms	3	0	3
CS-304	Information Security	3	0	3
CS-XXX	Elective Supporting (Social Science)	3	0	3
CS-XXX	Domain Elective 2	2	3	3
Total Contact Hours		15	9	
Total Credit Hours		15	3	18

Semester 7		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-400	Final Year Project - I	0	9	3
CS-401	Expository Writing	3	0	3
CS-402	Entrepreneurship	2	0	2
CS-XXX	Domain Elective 5	2	3	3
CS-XXX	Domain Elective 6	2	3	3
Total Contact Hours		9	15	
Total Credit Hours		9	5	14

*** represents elective courses that will be chosen from the list of available electives.

Semester 2		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-104	Object Oriented Programming	3	3	4
CS-105	Digital Logic Design	2	3	3
CS-106	Database Systems	3	3	4
BSI-112	Multivariable Calculus	3	0	3
BSI-101	Islamic Studies	2	0	2
For Pre-Medical Students Only				
BSI-120M	Maths-II (in place of BSI-112)	3	0	Non Credit
BSI-122	Calculus and Analytical Geometry	3	0	3
Credit Hours (Pre-Engg.)		13	9	16
Credit Hours (Pre-Medical)		13	9	16

Semester 4		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-205	Artificial Intelligence	2	3	3
CS-206	Operating Systems	2	3	3
CS-207	Introduction to Data Science	2	3	3
BSI-111	Linear Algebra	3	0	3
CS-XXX	Domain Elective - I	2	3	3
CS-XXX	General Education - II	3	0	3
Total Credit Hours		14	12	18

Semester 6		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-305	Compiler Construction	3	0	3
CS-306	Parallel & Distributed Computing	2	3	3
CS-307	Advance Database Management Systems	2	3	3
BSI-141	Communication and Presentation Skills	3	0	3
CS-XXX	Domain Elective 3	3	0	3
CS-XXX	Domain Elective 4	2	3	3
Total Contact Hours		15	9	
Total Credit Hours		15	3	18

Semester 8		Contact hours		Credit hours
Course Code	Course Title	Lecture	Lab.	Total
CS-400	Final Year Project - II	0	9	3
BSI-110	Ideology and Constitution of Pakistan	2	0	2
CS-403	Ethical & Legal Issues in Computing	2	0	2
CS-XXX	Civics and Community Engagment	2	0	2
CS-XXX	Domain Elective 7	2	3	3
Total Contact Hours		8	12	
Total Credit Hours		8	4	12

Total Credit Hours = 130