

BS - Computer Science

Code	Course Title	Credit Hours	Labs	Total
COMP-102	Introduction to ICT	2		2
COMP-102L	Introduction to ICT Lab		1	1
COMP-111	Programming Fundamentals	3		3
COMP-111L	Programming Fundamentals Lab		1	1
SS-101	Functional English	2		2
MTH-101	Calculus and Analytical Geometry	3		3
PHY-101	Applied Physics	3		3
PHY-101L	Applied Physics Lab		1	1
	Total Credit Hours	13	3	16
Semester – II (17CH)				
Code	Course Title	Credit Hours	Labs	Total
COMP-112	Object Oriented Programming	3		3
COMP-112L	Object Oriented Programming Lab		1	1
COMP-121	Discrete Structures	3		3
SS-102	Communication Skills	2		2
SS-112	Pak Studies	2		2
SS-111	Islamic Studies	2		2
EE-101	Digital Logic Design	3		3
EE-101L	Digital Logic Design Lab		1	1
	Total Credit Hours	15	2	17
Semester – III (17CH)				
Code	Course Title	Credit Hours	Labs	Total
COMP-201	Data Structures and Algorithms	3		3
COMP-201L	Data Structures and Algorithms Lab		1	1
COMP-261	Comp. Organization and Assembly Lang.	3		3
COMP-261L	Comp. Organization and Assembly Lang. Lab		1	1
MTH-203	Differential Equations (CS Supporting-I)	3		3
MTH-204	Linear Algebra	3		3
SS-203	Technical and Business Writing	3		3
	Total Credit Hours	15	2	17
Semester – IV (18CH)				
Code	Course Title	Credit Hours	Labs	Total
COMP-222	Design and Analysis of Algorithms	3		3
COMP-221	Theory of Automata	3		3
COMP-231	Database Systems	3		3
COMP-231L	Database Systems Lab		1	1
MTH-206	Probability and Statistics	3		3
SS-221	Organizational Behavior (University Elective-II)	3		3
SS-331	Community Service (University Elective-I)		2	2
	Total Credit Hours	15	3	18

Semester – V (16CH)				
Code	Course Title	Credit Hours	Labs	
COMP-262	Operating Systems	3		3
COMP-262L	Operating Systems Lab		1	1
COMP-321	Compiler Construction	3		3
MTH-307	Numerical Computations (CS Supporting-II)	2		2
MTH-307L	Numerical Computations Lab		1	1
COMP-171	Software Engineering	3		3
COMP-333	Management Information System (University Elective-III)	2		2
COMP-333L	Management Information System Lab		1	1
	Total Credit Hours	13	3	16
Semester – VI (17CH)				
Code	Course Title	Credit Hours	Labs	
COMP-342	Artificial Intelligence	3		3
COMP-342L	Artificial Intelligence Lab		1	1
COMP-353	Computer Networks	3		3
COMP-353L	Computer Networks Lab		1	1
COMP-3##	CS Elective-I	3		3
COMP-314	Theory of Programming Languages (CS Supporting-III)	2		2
COMP-314L	Theory of Programming Languages Lab (CS Supporting-III)		1	1
SS-322	Professional Ethics	3		3
	Total Credit Hours	14	3	17
Semester – VII (15CH)				
Code	Course Title	Credit Hours	Labs	
COMP-460	Parallel and Distributed Computing	3		3
COMP-3##	CS Elective-II	3		3
COMP-4##	CS Elective-III	3		3
COMP-4##	CS Elective-IV	3		3
COMP-497	Final Year Project I		3	3
	Total Credit Hours	12	3	15
Semester – VIII (15CH)				
Code	Course Title	Credit Hours	Labs	
COMP-4##	CS Elective-V	3		3
COMP-4##	CS Elective-VI	3		3
COMP-498	Final Year Project II		3	3
MGT-262	Entrepreneurship (University Elective-IV)	3		3
COMP-391	Information Security	3		3
	Total Credit Hours	12	3	15
				Grand Total: 131