

Semester Wise 4-Year Plan BCS (Software)					
Codes	Semester 1	CH	Codes	Semester 2	CH
CV-301	Islamic Studies	2-0	QR-321	Calculus and Analytical Geometry	3-0
SS-306	GE-Social Sciences-I (Introduction to Management)	3-0	CV-302	Pak Studies	2-0
CC-311	Information and Communication Technologies	3-0	CSW-321	Programming fundamentals	3-0
NS-303	GE-Natural Science-I (Applied Physics)	3-0	AH-321	GE-Arts and Humanities-I (Professional Practices)	3-0
EW-301	GE-Expository Writing-I	3-0	EW-302	GE-Expository Writing-II	3-0
MATH-311	Linear Algebra	3-0	CSW-321L	Programming fundamental Lab	1-0
Total Credit Hours		17	Total Credit Hours		15
Codes	Semester 3	CH	Codes	Semester 4	CH
CSW-411	Object Oriented Programming	3-0	CSW-421	Research Methods	3-0
SS-303	GE-Social Sciences-II (Psychology)	3-0	CSW-422	Operating Systems	2-0
AH-305	GE-Arts and Humanities-II (Islamic History)	3-0	CSW-423	Data Structure	3-0
CSW-412	Computer Networks	2-0	NS-421	GE-Natural Science-II	3-0
EW-303	GE-Expository Writing-III	3-0	CSW-424	Database System	2-0
CSW-411L	Object Oriented Programming Lab	1-0	CSW-424L	Database Systems Lab	1-0
CSW-412L	Computer Networks Lab	1-0	CSW-422L	Operating Systems Lab	1-0
MATH-411	Probability and Statistics	3			
Total Credit Hours		19	Total Credit Hours		15
Codes	Semester 5	CH	Codes	Semester 6	CH
CSW-513	Introduction to Software Engineering	3-0	CSW-526	Theory of Automata	3-0
CSW-512	Digital Logic Design	2-0	CSW-523	Artificial Intelligence	3-0
CSW-511	Advanced Computer Programming (Java)	3-0	CSW-524	Software Requirement Engineering	3-0
CSW-514	Design and Analysis of Algorithms	3-0	CSW-525	Object Analysis and Design	3-0
CSW-515	Discrete Structures	3-0	CSW-521	Minor (Web Application Development)	2-0
CSW-511L	Advanced Computer Programming Lab	1-0	CSW-521L	Minor (Web Application Development) Lab	1-0
Math-511	Multivariable Calculus	3-0			
CSW-512L	Digital Logic Design Lab	1-0			
Total Credit Hours		19	Total Credit Hours		15
Codes	Semester 7	CH	Codes	Semester 8	CH
CSW-617	Minor II (Software Quality Engineering)	3-0	CSW-623	Software Verification and Validation	3-0
CSW-611	Software Construction and Development	3-0	CSW-622	Minor IV (Mobile Application Development)	2-0
CSW-613	Software Project Management	3-0	CSW-624	Information Security	3-0
CSW-615	Software Design and Architecture	3-0	CSW-625	Parallel and Distributed System	3-0
CSW-614	Minor III(Web Engineering)	2-0	CSW-622L	Minor III (Mobile Application Development Lab)	1-0
CSW-614L	Minor III (Web Engineering) Lab	1-0	CSW-626	Final Year Project (Part-II)	3-0
CSW-616	Final Year Project (Part-I)	3-0			
Total Credit Hours		18	Total Credit Hours		15
Grand Total Credit Hours: 17+15+19+15+19+15+18+15=133					