Bachelor of Science in Software Engineering BS(SE)

Scheme of Study: Batch-2021-25

First Semester

Code	CourseTitle	CR	Prerequisite
ACCT-1081	Fundamentals of Accounting	3	
PHC-1003	Physics for Computing	2	
PHC-1003L	Physics for Computing - LAB	1	
ENG-1091	Functional English	3	
CS-1075	Introduction to ICT	2	
CS-1075L	Introduction to ICT- LAB	1	
COC-1070	Discrete Structures	3	
QT-1001	Translation of Al-Quran-I	0	
MA-0000	*Pre-Calculas-1	0	
Total		**15**	

Second Semester

Code	CourseTitle	CR	Prerequisite
STAT-2003	Probability and Statistics	3	
ENG-1092	Communication & Presentation Skills	3	Functional English
HU-1092	Pakistan Studies	2	
COC-1071	Programming Fundamentals	3	
COC-1071L	Programming Fundamentals-LAB	1	
SS-1093	Introduction to Psychology	3	
HU-1091	Islamic Studies	2	
QT-1002	Translation of Al-Quran-II	0	
MA-0001	*Pre-Calculas-2	0	
Total		**17**	

Third Semester

Code	CourseTitle	CR	Prerequisite
COC-2070	Database Systems	3	
COC-2070L	Database Systems-LAB	1	
MA-1001	Calculus	3	
COC-2071	Object Oriented Programming	3	Programming Fundamentals
COC-2071L	Object Oriented Programming-LAB	1	Programming Fundamentals
SES-2070	Operations Research	3	
COC-2072	Software Engineering Fundamentals	3	
QT-2001	Translation of Al-Quran-III	0	
Total		**17**	

Fourth Semester

Code	CourseTitle	CR	Prerequisite
MA-1005	Linear Algebra	3	
SEC-2071	Software Requirement Engineering	3	Software Engineering
COC-2073	Data Structures and Algorithms	3	Programming Fundamentals
COC-2073L	Data Structures and Algorithms-LAB	1	Programming Fundamentals
COC-3070	Data Communication and Networks	3	
COC-3070L	Data Communication and Networks-LAB	1	
ENG-3091	Technical Writing	3	
QT-2002	Translation of Al-Quran-IV	0	
Total		**17**	

Fifth Semester

Code	CourseTitle	CR	Prerequisite
COC-3071	Operating Systems	3	Data Structures and Algorithms
COC-3071L	Operating Systems-LAB	1	Data Structures and Algorithms
SEC-3071	Software Quality Engineering	3	Software Engineering
SEC-3072	Web Engineering	2	
SEC-3072L	Web Engineering-LAB	1	
SEC-3073	Software Architecture & Design	3	Software Requirement
SEC-3073L	Software Architecture & Design-LAB	1	Software Requirement
SEC-3074	Software Project Management	3	
QT-3001	Translation of Al-Quran-V	0	
Total		**17**	

Sixth Semester

Code	CourseTitle	CR	Prerequisite
SES-3070	Formal Methods in Software Engineering	3	Discrete Structures
SEC-3076	Human Computer Interaction	3	
SEE-XXXX	SE Elective I	3	
SEE-XXXX	SE Elective II	3	
SEC-3075	Software Construction and Development	2	Software Architecture &
SEC-3075L	Software Construction and Development-LAB	1	Software Architecture &
TE-1113	Introduction to Textiles	3	
QT-3002	Translation of Al-Quran-VI	0	
Total		**18**	

Seventh Semester

Code	CourseTitle	CR	Prerequisite
COC-4072L	Information Security - LAB	1	
COC-4070	BS Final Project-I	2	
COC-4072	Information Security	2	
SEE-XXXX	SE Elective III	3	
SEE-XXXX	SE Elective IV	3	
SEC-4071	Software Re-Engineering	3	Software Construction and
SS-4071	Professional Practices	3	
QT-4001	Translation of Al-Quran-VII	0	
Total		**17**	

Eight Semester

Code	CourseTitle	CR	Prerequisite
COC-4071	BS Final Project-II	4	
SEE-XXXX	SE Elective V	3	
MGT-4085	Entrepreneurship	3	
SES-4070	Simulation and Modeling	2	
SES-4070L	Modeling and Simulation - LAB	1	
SS-XXXX	Foreign Language (Chinese/German/French)	2	
QT-4002	Translation of Al-Quran-VIII	0	
Total		**15**	

Industrial Internship (4 weeks, 6days/week, 8 hours/day during summer holidays after 2nd year)	1	
Total Credits for BS Software Engineering	**134**	