BS Software Engineering

Semester fall 2025

Semester 1

Course Code	Course Title	Credit Hours	Section
CP103	Introduction to Computing	3	10
CP101	Introduction to Computing - Lab	1	10
GE102	Basic Electronics	3	10
GE101	Basic Electronics - Lab	1	10
ENG110	Functional English	3	10
PAK102	Ideology and Constitution of Pakistan	2	10
AL143	Discrete Structures	3	10
MAT103	Pre-Calculus (Only medical background)	3	3

Semester 2

Course Code	Course Title	Credit Hours	Section
CP113	Programming Fundamentals (PF-SE-T) – Theory	3	2
CP111	Programming Fundamentals (PF-SE-L) – Lab	1	2
AR102	Digital Logic and Design	2	2
AR101	Digital Logic and Design - Lab	1	2
ENG211	English II	3	2
CCE201	Civics and Community Engagement	2	2
MAT113	Calculus and Analytical Geometry	3	2
MAT123	Elementary Algebra	3	1

Semester 3

Course Code	Course Title	Credit Hours	Section
CP223	Object Oriented Programming	3	8
CP221	Object Oriented Programming Lab	1	8
AR223	Computer Organization and Assembly Language (COAL-SE-T) Theory	3	8
AR221	Computer Organization and Assembly Language (COAL-SE-L) Lab	1	8
MAT253	Probability and Statistics (PROB-SE)	3	8
SEP203	Professional Practices (PP-SE)	3	8

Course Code	Course Title	Credit Hours	Section
MAT243	Multivariable Calculus (MVC-SE)	3	8
ENT102	Entrepreneurship (ENT-SE)	2	8

Semester 4

Course Code	Course Title	Credit Hours	Section
CP233	Data Structures	3	1
CP231	Data Structures - Lab	1	1
DB203	Database Systems	2	1
SS103	Sociology	2	1
SE203	Software Engineering	3	1
SS103	Sociology	2	1
MAT233	Linear Algebra	3	1
ISL201	Islamic Studies	3	1

Semester 5

Course Code	Course Title	Credit Hours	Section
SENS3513	Operating Systems (OS-SE-T) Theory	3	6
SENS3511	Operating Systems (OS-SE-L) Lab	1	6
SESE2123	Human Computer Interaction (HCI-SE)	3	6
SEST2613	Business Process Engineering (BPE-SE)	3	6
SESE3143	Web Application Development	3	6
SEGE2933	Technology Entrepreneurship (T-ENT-SE)	3	2
SEGE1973	Financial Accounting (FA-SE)	3	2

Semester 6

Course Code	Course Title	Credit Hours	Section
SENS3523	Computer Comm. and Networks (CCN-SE-T) Theory	3	3
SENS3521	Computer Comm. and Networks (CCN-SE-L) Lab	1	3
SESD3242	Software Construction and Development (SCD-SE-T) - Theory	2	3
SESD3241	Software Construction and Development (SCD-SE-L) –Lab	1	3
SESE3133	Formal Methods in Software Engineering (FM-SE)	3	3
SECP4063	Advance Web Programming (AWP-SE)	3	3

	SEAD3463	Applied using Machine Learning (AML-SE)	3	3
Semester 7				
	Course Code	**Course Title**	**Credit Hours**	**Section**
	SENS4533	Information Security – (ISEC-SE)	3	5
	SESM4323	Software Project Management – (SPM-SE)	3	5
	SESE4143	Software Re-engineering – (SREE-SE)	3	5
	SESD4913	Final Year Project I – (FYP-SE-I)	3	1
	SESD3263	Automation Software Testing (AST-SE)	3	5
	SEST4663	DevOps Fundamentals (DF-SE)	3	5
Semester 8				
	Course Code	**Course Title**	**Credit Hours**	**Section**
	SEGE3953	Professional Practices	**3**	4
	SESM3313	Software Quality Engineering	3	4
	SEGE4963	Organazational Behaviour and Culture	3	4
	SEGE3993	Fundamentals of Enterprise Resource Planning	3	4
	SESD4923	Final Year Project II	3	1
	SESS3763	Operation Research	3	2
	SESS3753	Stochastic Processes	3	2