

BACHELOR OF SOFTWARE ENGINEERING

SCHEME OF STUDIES

Subject to changes and modifications by the University, the courses of studies for the present batch are as follows:

FIRST YEAR – Spring Semester

S. No.	Course Code	Title	Credit Hours
1	CT - 153	Programming Languages	3
2	CT - 158	Fundamentals of Information Technology	2
3	CT - 162	Discrete Structures	3
4	HS - 102	English	3
5	MT - 173	Calculus	3
6	PH - 121	Applied Physics	4

FIRST YEAR – Fall Semester

S. No.	Course Code	Title	Credit Hours
1	CT - 157	Data Structure Algorithms & Applications	4
2	CT - 172	Computing Workshop	2
3	EE - 119	Fundamentals of Electrical Engineering	4
4	EL - 134	Basic Electronics	4
5	CY - 105	Applied Chemistry	4
6	HS - 105 HS - 127	Pakistan Studies OR Pakistan Studies (for Foreigners)	2

SECOND YEAR – Spring Semester

S. No.	Course Code	Title	Credit Hours
1	CS - 251	Logic Design & Switching Theory	4
2	SE - 201	Object Oriented Concepts & Programming	4
3	SE - 202	Computer Graphics	4
4	MT - 273	Differential Equations & Linear Algebra	3
5	HS - 205 HS - 209	Islamic Studies OR Ethical Behaviour	2

SECOND YEAR – Fall Semester

S. No.	Course Code	Title	Credit Hours
1	CS - 252	Computer Architecture & Organisation	4
2	HS - 208	Business Communications & Ethics	3
3	SE - 203	Software Requirement Engineering	4
4	SE - 204	Database Management Systems	4
5	SE - 205	Software Engineering	4
6	SE - 206	Web Engineering	4

Syllabi of Courses for B.E. (Software Engineering) Degree Programme

THIRD YEAR – Spring Semester

S. No.	Course Code	Title	Credit Hours
1	IF - 301	Applied Economics for Engineers	3
2	MT - 330	Applied Probability & Statistics	3
3	SE - 301	Software Design & Architecture	4
4	SE - 302	Human Computer Interaction	3
5	SE - 303	Operating Systems	4
6	SE - 304	Computer Aided Engineering Drawing	4

THIRD YEAR – Fall Semester

S. No.	Course Code	Title	Credit Hours
1	CS - 351	Computer Communication Networks	4
2	CT - 361	Artificial Intelligence & Expert Systems	4
3	SE - 305	Software Quality Engineering	4
4	SE - 306	Software Project Management	3
5	SE - 307	E-Commerce	4

FINAL YEAR – Spring Semester

S. No.	Course Code	Title	Credit Hours
1	CT - 460	Network & Information Security	4
2	MT - 471	Applied Numerical Methods	3
3	SE - 401	Modeling & Simulation	4
4	SE - 402	Distributed Database Client Server Programming	4
5	SE - 403	Data Warehouse Methods	4
6	SE - 499	*Software Engineering Project	-

* Duration one academic year: Literature survey and preliminary work to be done during this Semester.

FINAL YEAR – Fall Semester

S. No.	Course Code	Title	Credit Hours
1	HS - 403	Entrepreneurship	3
2	CT - 221	Financial & Cost Accounting	3
3	SE - 404	Design Patterns	4
4	SE - ###	Elective Course	4
5	SE - 499	Software Engineering Project	6

Elective Courses:
 SE - 481 Software Testing Strategies & Techniques
 SE - 482 Software Reliability Engineering & Safety Critical Systems
 SE - 483 Information Systems Engineering