SEMESTER WISE SCHEME OF STUDIES -2026 AND ONWORDS

BS COMPUTER SCIENCE (BSCS)-135 CREDIT HOURS

FIRST YEAR

1ST SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
0	DCMT-300	Mathematics-I (Pre-Medical Only)	NC	Deficiency
1	GUHQ-300 GHIS-300	Understanding of Holy Quran - I / History-I	1 (0+1)	General Education
2	GARH-300	Digital Art (Arts & Humanities)	2(2+0)	General Education (Art & Humanities)
3	GICP-300	Ideology & Constitution of Pakistan	2(2+0)	General Education
4	GENG-300	Functional English	3 (3+0)	General Education
5	GICT-300 GICT-301	Applications of ICT (Theory + Lab)	3 (2+1)	General Education
6	GSOS-300	Financial Accounting	2 (2+0)	General Education (Social Science)
7	COMP-302 COMP-303	Programming Fundamentals (Theory + Lab)	4 (3+1)	Major
		TOTAL CREDIT HOURS PER SEMESTER	**17**	

2ND SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
1	DCMT-301	Mathematics-II (Pre-Medical Only)	NC	Deficiency
1	GUHQ-301 GHIS-301	Understanding the Holy Quran - II / History-II	1(0+1) / 1(1+0)	General Education
2	GISS-301 GETH-301	Islamic Studies / Ethics	2(2+0)	General Education
3	GENG-301	Expository Writing	3(3+0)	General Education
4	COMP-312 COMP-313	Object Oriented Programming (Theory + Lab)	4 (3+1)	Major
5	COMP-314 COMP-315	Digital Logic & Design (Theory + Lab)	4 (3+1)	Major
6	CSIB-316	IoT Basics	3(3+0)	Core Elective
		TOTAL CREDIT HOURS PER SEMESTER	**17**	

SECOND YEAR

3RD SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
1	GQUR-400	Quantitative Reasoning - I	3(3+0)	General Education
2	GCCE-400	Civics & Community Engagement	2(2+0)	General Education
3	GPAK-400	Pakistan Studies	2(2+0)	General Education
4	COMP-402 -COMP-403	Operating Systems(Theory + Lab)	4 (3+1)	Major
5	COMP-404-COMP-405	Data Structures(Theory + Lab)	4(3+1)	Major
6	INLA-420	Linear Algebra	3(3+0)	IDS – Mandatory
7	INPP-420	Professional Practices	2 (2+0)	IDS – Mandatory
		TOTAL CREDIT HOURS PER SEMESTER	**20**	

4TH SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
1	GQUR-401	Quantitative Reasoning - II	3(3+0)	General Education
2	GENT-401	Entrepreneurship	2(2+0)	General Education
3	GNAS-401	Earth Sciences	3(3+0)	General Education (N_Science)
4	COMP-412 COMP-413	Database Systems (Theory + Lab)	4(3+1)	Major
5	INDM-422	Digital Marketing & E-Commerce	3(3+0)	IDS - Mandatory
6	INCA-422	Calculus & Analytical Geometry	3(3+0)	IDS - Mandatory
		TOTAL CREDIT HOURS PER SEMESTER	**18**	

THIRD YEAR

5TH SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
1	COMP-500	Design & Analysis of Algorithms	3(2*0)	Major
2	COMP-502	Software Engineering	3(2*0)	Major
3	COMP-504	Artificial Intelligence	2(2*0)	Major
4	COMP-506	Computer Organization & Architecture (Theory + Lab)	3(2*1)	Major
5	COMP-508	Computer Networks (Theory +Lab)	3(2+1)	Major
6	FDEX-560	Field Experience / Internship	2	Field Experience
		TOTAL CREDIT HOURS PER SEMESTER	**18**	

6TH SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
1	COMP-512	Cloud Computing	3(3+0)	Major
2	COMP-514	Theory of Automata	3(3+0)	Major
3	CSML-516	Machine Learning	3 (3+0)	Core Elective
4	CSMA-518 CSMA-519	Mobile Application Development (Theory + Lab)	3(2+1)	Core Elective
5	PCRT-520	Professional Certification	3	Certification
		TOTAL CREDIT HOURS PER SEMESTER	**15**	

FOURTH YEAR

7TH SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
1	COMP-600	Information Security	3(3+0)	Major
2	CSWT-602 CSWT-604	Web Technologies (Theory + Lab)	3 (2+1)	Core Elective
3	CSDS-606	Introduction to Data Science	3 (3+0)	Core Elective
4	CSNL-608 CSNL-609	Natural Language Processing (Theory + Lab)	3 (3+0)	Core Elective
5	CPPR-650	Capstone Project - I	3 (0+3)	Capstone Project
		TOTAL CREDIT HOURS PER SEMESTER	**15**	

8TH SEMESTER

S. NO	COURSE CODE	COURSE TITLE	CREDIT HOURS	CATEGORY
1	CSCS-612 CSCS-613	Cyber Security (Theory + Lab)	3 (2+1)	Core Elective
2	CSGA-614	Generative AI	3 (3+0)	Core Elective
3	CSLC-616	Low-code/No-code Application Development	3 (3+0)	Core Elective
4	CSQC-618	Introduction to Quantum Computing	3 (3+0)	Core Elective
5	CPPR-660	Capstone Project – II	3 (0+3)	Capstone Project
		TOTAL CREDIT HOURS PER SEMESTER	**15**	

TOTAL CREDIT HOURS	**135**