Course Scheme of B.E Computer Systems Engineering Applicable from IIEE Batch 2026

FIRST YEAR OF ENGINEERING									
FE (CS) Fall Semester					**FE (CS) Spring Semester**				
Course. Code	Course Title	Credit Hours			Course. Code	Course Title	Credit Hours		
		Theo	Lab	Total			Theo	Lab	Total
HS115	Functional English	2	0	2	HS124	Communication & Presentation Skills	2	0	2
HS232	Ideology and Constitution of Pakistan	2	0	2	CS111	Applications of ICT	2	1	3
MS111	Calculus and Analytical Geometry	3	0	3	HS122 HS123	Islamic Studies (For Muslims) Ethical Behavior (For Non-Muslims)	2	0	2
MS115	Applied Physics	2	1	3	MS121	Differential Equations	3	0	3
CS112	Basic Electrical Engineering	3	1	4	IE121	Basic Electronics	3	1	4
CS113	Computer Programming	3	1	4	CS121	Object Oriented Programming	3	1	4
CY100	Chemistry			NC					
	Sub Total =	**15**	**3**	**18**		**Sub Total =**	**15**	**3**	**18**
SECOND YEAR OF ENGINEERING									
SE (CS) Fall Semester					**SE (CS) Spring Semester**				
Course. Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Theo	Lab	Total			Theo	Lab	Total
MS231	Complex Variables & Transforms	3	0	3	MS241	Linear Algebra	3	0	3
HS231	Pakistan Studies	2	0	2	IE356	Signal and Systems	3	1	4
IE245	Digital Logic Design	3	1	4	CS241	Computer Architecture	3	0	3
CS231	Data Structures and Algorithms	3	1	4	CS242	Operating Systems	3	1	4
IE359	Probability and Statistics for Engineers	3	0	3	CS243	Database Management Systems	3	1	4
HS233	Civics & Community Engagement	2	0	2	HS200	Community Service			NC
					HS242 HS243	Understanding of Holy Quran-I / Introduction to Ethics-I	0/1	1/0	1
	Sub Total =	**16**	**2**	**18**		**Sub Total =**	**15/16**	**4/3**	**19**
THIRD YEAR OF ENGINEERING									
TE (CS) Fall Semester					**TE (CS) Spring Semester**				
Course. Code	Course Title	Credit Hours			Course Code	Course Title	Credit Hours		
		Theo	Lab	Total			Theo	Lab	Total
CS351	Computer Communication Network	3	1	4	HS361	Expository Writing	3	0	3
IE358	Microprocessors and Microcontrollers	3	1	4	HS241	Occupational Health and Safety	1	0	1
CS352	Software Engineering	3	1	4	MS471	Numerical Methods	3	0	3
CS353	Automation and Control	3	1	4	IE471	Digital Signal Processing	3	1	4
CS354	Cyber Physical Systems	2	1	3	IE475	Artificial Intelligence	3	1	4
HSXXX	Foreign Language-1			NC	EL46X	Elective I (Non Engineering)	2	0	2
HS352 HS353	Understanding of Holy Quran-II / Introduction to Ethics-II	0/1	1/0	1					
	Sub Total =	**14/15**	**6/5**	**20**		**Sub Total =**	**15**	**2**	**17**
FOURTH YEAR OF ENGINEERING									
BE (CS) Fall Semester					**BE (CS) Spring Semester**				
Course. Code	Course Title	Credit Hours			Course. Code	Course Title	Credit Hours		
		Theo	Lab	Total			Theo	Lab	Total
MS484	Entrepreneurship	2	0	2	EL48X	Elective III (Engineering)	2	0	2
EL47X	Elective II (Engineering)	2	1	3	MS483	Engineering Economics & Management	3	0	3
CS471	Industrial IOT and Informatics	2	1	3	CS481	Robotic Systems Designs	2	1	3
CS472	Real Time Systems	3	1	4	CS482	Industrial Systems Analytics	3	1	4
CS473	Final Year Project (Computer Engineering Project)	0	3	3	HSXXX	Foreign Language-2			NC
					CS473	Final Year Project (Computer Engineering Projects)	0	3	3
	Sub Total =	**9**	**6**	**15**		**Sub Total =**	**10**	**5**	**15**
GRAND TOTAL: = 140 Credit Hours									

List of Elective I (Non-Engineering)

EL461 Organizational Behavior (2+0)
EL462 Critical Thinking (2+0)
EL463 Sociology for Engineers (2+0)

List of Electives-II (Engineering)

EL475 Distributed Computing (2+1)
EL476 Deep Learning (2+1)
EL477 Computer Vision (2+1)

List of Electives-III (Engineering)

EL481 Cyber Security (2+0)
EL482 Cloud Computing (2+0)
EL483 Block Chain Technology (2+0)