

Department of AI					
Scheme of Study Fall 2023 Onwards					
Semester I					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
CS100		Introduction information and Communication technologies	3(2-3)	GER(1)	Custer IV
		Programming fundamentals	4(3-3)	Core(1)	
		English Composition and Comprehension (Functional English)	3(3-0)	GER(2)	Custer IV
		Discrete Structures (Quantitative Reasoning I)	3(3-0)	GER(3)	Cluster V
		Islamic Studies	2(2-0)	GER(4))	Custer IV
		Fundamental of Mathematics-I (For Med Students)	3(3-0)	Non-Cr	
		Total Credit Hours	15		
Semester II					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
		Pakistan Studies	2(2-0)	GER(5)	Custer IV
	PF	Object Oriented Programming	4(3-3)	Core(2)	
		Calculus and Analytical Geometry (Quantitative resonaning II)	3(3-0)	GER(6)	Cluster IV
		Applied Physics/Introduction To AI	3(2-3)	GER(7)	Cluster II
	FE	Communication and Presentation Skills (Expository Writing)	3(3-0)	GER(8)	Custer IV
		Fundamental of Mathematics-II (For Med Students)	3(3-0)	Non-Cr	
		Total Credit Hours	15		
Semester III					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
		Digital Logic Design	3(2-3)	Core(3)	
	FP	Data Structures	4(3-3)	Core(4)	
	CAG	Linear Algebra	3(3-0)	Maths + Supporting(1)	
		Probability and Statistics	3(3-0)	Maths + Supporting(2)	Cluster V
	EW	Technical and Business Writing	3(3-0)	Maths + Supporting(3)	
		Seerat Un Nabi	2(2-0)	GER(9)	Cluster IV
		Total Credit Hours	18		
Semester IV					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
		Programming for Artificial Intelligence	3(2-3)	Domain Core(1)	
	DLD	Computer Organization and Assembly Language	3(2-3)	Core(5)	
	OOP	Artificial Intelligence	3(2-3)	Core(6)	
		Database systems	4(3-3)	Core(7)	
		Ideology and Constitution of Pakistan	2(2-0)	GER(10)	Cluster IV
		Civics and Community Engagment	2(2-0)	GER(11)	Cluster IV
		Total Credit Hours	17		
Semester V					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
		Theory of Automata	3(3-0)	Domain Elective(1)	
	DS	Operating Systems	3(2-3)	Core(8)	
		Intro to Managment/Human Rights & Citizenship/Intro to IR Principal of Sociology	2(2-0)	GER(12)	Cluster III
	AI	Machine Learning	3(2-3)	Domain Core(2)	
	P AI	Artificial Neural Network and Deep Learning	3(2-3)	Domain Core(3)	
		Professional Practices	2(2-0)	GER(13)	Cluster I
		Total Credit Hours	16		
Semester VI					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
	AI	Knowldege Representation and reasoning	3(2-3)	Domain Core(4)	
	CAG	Multivariable Calculus	3(3-0)	Maths + Supporting(4)	Complete
		Information Security	3(2-3)	Core(9)	
	ANN & DL	Natural Language Processing	3(2-3)	Domain Elective(2)	
		Software Engineering	3(3-0)	Core(10)	
		Reinforcement Learning	3(2-3)	Domain Elective(3)	
		Total Credit Hours	18		

Semester VII					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
	DS	Analysis of Algorithm	3(3-0)	Core(11)	
	ANN & DL	HCI and Computer Graphics/Computer Vision	3(2-3)	Domain Elective(4)	
		Computer Networks	3(2-3)	Core(12)	
	P & Stats	Fuzzy Systems/Advanced Statistics	3(2-3)	Domain Elective(5)	
		Speech Processing	3(2-3)	Domain Elective(6)	
		FYP-I	2(0-6)	Core(13)	
		Total Credit Hours	17		
Semester VIII					
Code	Pre-Reqs	Course Title	Cr.hr	Domain	
	OS/OOP	Parallel and Distributed Computing	3(2-3)	Domain core	Complete
		Swarm Intelligence/Agent Based Modeling/ Knowledge Based systems	3(2-3)	Domain Elective(7)	complete
		Enterprenurship	2(2-0)	GER(14)	complete
	FYP-I	FYP-II	4(0-12)	Core(14)	complete
		Total Credit Hours	12		
		Total BSAI Credit Hours	131		
		Internship	3(0-3)	4th Semester Onward	