

9. Scheme of Studies and Semester-wise Workload

Semester – I						
Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	GE-160	Applications of Information & Communication Technologies		GE	2	(2,0)
2	GE-160-L	Applications of Information & Communication Technologies Lab		GE	1	(0,3)
3	GE-169	Applied Physics		GE	3	(2,3)
4	CC-110	Digital Logic Design		CC	2	(2,0)
5	CC-110-L	Digital Logic Design Lab		CC	1	(0,3)
6	GE-163	Islamic Studies		GE	2	(2,0)
7	GE-168	Ideology and Constitution of Pakistan		GE	2	(2,0)
8	GE-190	Functional English		GE	3	(3,0)
9	MD-001	Math Deficiency – I		MD	3*	(3,0)*
10	HQ-001	Quran Translation – I		HQ	0.5	(0.5,0)
Credit Hours (Semester - I)					16.5	(13.5,9)
Semester – II						
Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	CC-112	Programming Fundamentals		CC	3	(3,0)
2	CC-112-L	Programming Fundamentals Lab		CC	1	(0,3)
3	CC-214	Computer Networks		CC	3	(2,3)
4	GE-167	Discrete Structures		GE	3	(3,0)
5	GE-191	Expository Writing		GE	3	(3,0)
6	UE-272	Introduction to Marketing		UE	3	(3,0)
7	MD-002	Math Deficiency – II		MD	3*	(3,0)*
8	HQ-002	Quran Translation – II		HQ	0.5	(0.5,0)
Credit Hours (Semester - II)					16.5	(14.5,6)
Semester – III						
Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	CC-211	Object Oriented Programming	Programming Fundamentals	CC	3	(3,0)
2	CC-211-L	Object Oriented Programming Lab	Programming Fundamentals	CC	1	(0,3)
3	CC-210	Computer Organization & Assembly Language	Digital Logic Design	CC	3	(2,3)
4	CC-215	Database Systems		CC	3	(3,0)
5	CC-215-L	Database Systems Lab		CC	1	(0,3)
6	CC-212	Software Engineering		CC	3	(3,0)
7	GE-162	Calculus & Analytical Geometry		GE	3	(3,0)
8	HQ-003	Quran Translation – III		HQ	0.5	(0.5,0)
Credit Hours (Semester - III)					17.5	(14.5,9)

Semester – IV

Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	CC-213	Data Structures	Object Oriented Programming	CC	3	(3,0)
2	CC-213-L	Data Structures Lab	Object Oriented Programming	CC	1	(0,3)
3	CC-311	Operating Systems		CC	3	(2,3)
4	CC-312	Information Security		CC	3	(2,3)
5	MS-253	Multivariable Calculus	Calculus & Analytical Geometry	MS	3	(3,0)
6	MS-251	Probability and Statistics		MS	3	(3,0)
7	GE-192	Introduction to Management		GE	2	(2,0)
8	HQ-004	Quran Translation – IV		HQ	0.5	(0.5,0)
Credit Hours (Semester - IV)					18.5	(15.5,9)

Semester – V

Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	CC-310	Artificial Intelligence	Data Structures	CC	3	(2,3)
2	CC-313	Analysis of Algorithms	Data Structures	CC	3	(3,0)
3	DI-322	Web Technologies	Programming Fundamentals	DI	3	(2,3)
4	DI-328	Parallel & Distributed Computing	Operating Systems	DI	3	(2,3)
5	MS-252	Linear Algebra		MS	3	(3,0)
6	GE-262	Professional Practices		GE	2	(2,0)
7	HQ-005	Quran Translation – V		HQ	0.5	(0.5,0)
Credit Hours (Semester - V)					17.5	(14.5,9)

Semester – VI

Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	EI-330	Software Project Management		EI	3	(3,0)
2	EI-333	Mobile Application Development	Object Oriented Programming	EI	3	(2,3)
3	EI-335	Machine Learning	Artificial Intelligence	EI	3	(2,3)
4	EI-425	Software Quality Engineering		EI	3	(3,0)
5	EI-331	Software Construction & Development	Programming Fundamentals	EI	3	(2,3)
6	GE-362	Entrepreneurship		GE	2	(2,0)
7	HQ-006	Quran Translation – VI		HQ	0.5	(0.5,0)
Credit Hours (Semester - VI)					17.5	(14.5,9)

Semester – VII						
Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	CC-411	Final Year Project – I		CC	2	(0,6)
2	DI-324	Database Administration and Management	Database Systems	DI	3	(2,3)
3	DI-323	System and Network Administration	Operating Systems	DI	3	(2,3)
4	EI-236	Global IT Services and Workspace		EI	3	(2,3)
5	EI-339	Cloud Computing		EI	3	(2,3)
6	HQ-007	Quran Translation – VII		HQ	0.5	(0.5,0)
Credit Hours (Semester - VII)					14.5	(8.5,18)
Semester – VIII						
Sr.	Code	Course Title	Pre-Requisite	Domain	Cr. Hrs.	Cont. Hrs.
1	CC-412	Final Year Project – II	Final Year Project - I	CC	4	(0,12)
2	DI-327	Information Technology Infrastructure		DI	3	(2,3)
4	DI-325	Cyber Security	Information Security	DI	3	(2,3)
6	MS-254	Technical and Business Writing		MS	3	(3,0)
7	GE-363	Civics and Community Management		GE	2	(2,0)
8	HQ-008	Quran Translation – VIII		HQ	0.5	(0.5,0)
Credit Hours (Semester - VIII)					15.5	(9.5,18)
Total Credit Hours					134	(111,87)

Research Thesis / Project /Internship

Final Year Project (6 credit hours, VII & VIII semesters)

10. Course Outlines

Course outlines of all major categories are shared below (next page).