

Tentative Schemes of Study for Associate Degree – Computing effective from Fall 2026

Semester – 0 (If any deficiency)					
Code	Course Title	Category	Pre-req	Credit Hrs	PLOs
MTH-1013	Mathematics-I (If mathematics was not in Intermediate)	Deficiency	-	3	
MTH-1023	Mathematics-II (If mathematics was not in Intermediate)	Deficiency	-	3	
Total				6	

Semester - 1					
Code	Course Title	Category	Pre-req	Credit Hrs	PLOs
CSC-1012	Application of Information & Communication Technologies	General Education	-	2	
CSC-1011	Application of Information & Communication Technologies - LAB	General Education	-	1	
PHY-1412	Natural Sciences (Applied Physics)	General Education	-	2	
PHY-1411	Natural Sciences (Applied Physics-Lab)	General Education	-	1	
MTH-1423	Quantitative Reasoning-I	General Education	-	3	
ENG-1213	Functional English	General Education	-	3	
CSC-1113	Programming Fundamentals	Major	-	3	
CSC-1111	Programming Fundamentals - LAB	Major	-	1	
Total				16	

Semester - 2					
Code	Course Title	Category	Pre-req	Credit Hrs	PLOs
MTH-1433	Quantitative Reasoning-II	General Education	MTH-1423	3	
HUM-1322	Arts & Humanities	General Education	-	2	
SOC-1312	Social Sciences (Introduction to Sociology)	General Education	-	2	
ISL-1351	Fahm e Quran-I (For Muslim Students)	General Education	-	1	
CSC-1123	Object Oriented Programming	Major	CSC-1113	3	
CSC-1121	Object Oriented Programming - LAB	Major	CSC-1111	1	
DME-1113	Elective-I	Elective	-	3	
DME-1123	Elective-II	Elective	-	3	
Total				18	

Semester - 3					
Code	Course Title	Category	Pre-req	Credit Hrs	PLOs
ISL-2361	Fahm e Quran-II (For Muslim Students)	General Education	-	1	
ENG-2223	Expository Writing	General Education	ENG-1213	3	
Pak-2372	Pakistan Studies	General Education	-	2	
CSC-2133	Data Structures	Major	CSC-1123	3	
CSC-2131	Data Structures - LAB	Major	CSC-1121	1	
CSC-2053	Software Engineering	Major	-	3	
CSC-2042	Computer Networks	Major	-	2	
CSC-2041	Computer Networks-Lab	Major	-	1	
DME-2133	Elective-III	Elective	-	3	
Total				19	

Semester - 4					
Code	Course Title	Category	Pre-req	Credit Hrs	PLOs
MGT-2332	Entrepreneurship	General Education	-	2	
ISL-2342	Islamic Studies/Ethics	General Education	-	2	
HUM-2382	Civics and Community Engagement	General Education	-	2	
HUM-2392	Ideology and Constitution of Pakistan	General Education	-	2	
CSC-2033	Database Systems	Major	-	3	
CSC-2031	Database Systems-Lab	Major	-	1	
CSC-2083	Operating Systems	Major	-	3	
CSC-2081	Operating Systems-Lab	Major	-	1	
DME-2143	Elective-IV	Elective	-	3	
MGT-2332	Entrepreneurship	General Education	-	2	
Total				19	

Pool of Elective Courses: 12 Credit Hours (04 Courses):

A total of 12 credit hours in the AD program is allocated to elective courses from the pool.

Elective Courses

Serial No.	Elective Courses	Credit Hours
1	Introduction to Cloud Fundamentals	3
2	Web Development (Frontend and Backend)	3
3	Mobile App Development	3
4	Data Analytics and SQL for Practitioners	3
5	Introduction to Machine Learning and AI Tools	3
6	Cybersecurity Fundamentals	3
7	DevOps and CI/CD Essentials	3
8	Database Administration and SQL Tuning	3
9	UX/UI and Product Prototyping	3

10	Internet of Things (IoT) Basics	3
11	Practical Python Scripting and Automation	3
12	Applied Networking and Wireless Technologies	3
13	Low-code/No-code Application Development	3
14	Blockchain and Smart Contract Basics	3
15	Digital Logic Design	3
16	Information Security Fundamentals	3
17	Computer Organization & Architecture	3
18	Design and Analysis of Algorithms	3
19	Theory of Automata	3
20	Software Project Management	3