

Course Offering
Semester: Fall 2026
Program: BS Artificial Intelligence

Sr.	Code	Course Title	Status	Sections	Pre-Req.	Co-Req.	Semester
1.	AI1133	Introduction to Programming	Major	2	Nil	AI1131	1
2.	AI1131	Introduction to Programming Lab	Major	3	Nil	AI1133	1
3.	AIG1612	Applications of Information and Communication Technologies	General	2	Nil	AIG1611	1
4.	AIG1611	Applications of Information and Communication Technologies Lab	General	3	Nil	AIG1612	1
5.	AIG1513	Calculus and Analytical Geometry	General	2	Nil	Nil	1
6.	AIG1113	Functional English	General	2	Nil	Nil	1
7.	AIG1022	Ideology and Constitution of Pakistan	General	2	Nil	Nil	1
8.	MTCS1003	Basic Mathematics	Deficiency	-	Nil	Nil	1
9.	AI1143	Object Oriented Programming	Major	2	AI1133	AI1141	2
10.	AI1141	Object Oriented Programming Lab	Major	3	AI1133	AI1143	2
11.	AIG1032	Pakistan Studies	General	2	Nil	Nil	2

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12.	AIG1123	Expository Writing	General	2	AIG1113	Nil	2
13.	AIG1312	Applied Physics	General	2	Nil	AIG1311	2
14.	AIG1311	Applied Physics Lab	General	2	Nil	AIG1312	2
15.	AIG1012	Islamic Studies/Ethics	General	2	Nil	Nil	2
16.	AIG1021	Fehm-ul-Quran-I	General	2	Nil	Nil	2
17.	AIG1573	Discrete Structures	General	2	Nil	Nil	2
18.	MTCS1103	Basic Mathematics II	Deficiency	-	MTCS1003	Nil	2
19.	AI2143	Data Structures	Major	2	AI1143	AI2141	3
20.	AI2141	Data Structures Lab	Major	3	AI1143	AI2143	3
21.	AI2313	Database Systems	Major	2	AI1133	AI2311	3
22.	AI2311	Database Systems Lab	Major	3	AI1133	AI2313	3
23.	AI2822	Programming for AI	Major	2	AI1133	AI2821	3
24.	AI2821	Programming for AI Lab	Major	3	AI1133	AI2822	3
25.	MTAI1033	Linear Algebra	Allied	2	AIG1513	Nil	3
26.	AIG1412	Sociology	General	2	Nil	Nil	3

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27.	AIG1031	Fehm-ul-Quran II	General	2	Nil	Nil	3
28.	AIG2812	Civics and Professional Ethics	General	2	Nil	Nil	4
29.	AI2772	Computer Networks	Major	2	AI1133	AI2771	4
30.	AI2771	Computer Networks Lab	Major	2	AI1133	AI2772	4
31.	AI2412	Operating Systems	Major	2	AI2143	AI2411	4
32.	AI2411	Operating Systems Lab	Major	2	AI2143	AI2412	4
33.	AI2512	Digital Logic Design	Major	2	Nil	AI2511	4
34.	AI2511	Digital Logic Design Lab	Major	3	Nil	AI2512	4
35.	MTAI2053	Multivariable Calculus	Allied	2	AIG1513	Nil	4
36.	AI2822	Programming for AI	Major	2	AI1133	AI2821	4
37.	AI2821	Programming for AI Lab	Major	2	AI1133	AI2822	4
38.	AI3712	Information Security	Major	2	AI1133	AI3711	5
39.	AI3711	Information Security Lab	Major	2	AI1133	AI3712	5
40.	AI3163	Analysis of Algorithms	Major	2	AI2143	Nil	5
41.	AI3522	Computer Organization and Assembly Language	Major	2	AI1133	AI3521	5

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42.	AI3521	Computer Organization and Assembly Language Lab	Major	2	AI1133	AI3522	5
43.	AI3812	Machine Learning	Major	2	AI2822	AI3811	5
44.	AI3811	Machine Learning Lab	Major	2	AI2822	AI3812	5
45.	AI3432	Parallel and Distributed Computing	Major	2	AI1133	AI3431	5
46.	AI3431	Parallel and Distributed Computing Lab	Major	2	AI1133	AI3432	5
47.	AI3223	Software Engineering	Major	2	AI1133	Nil	5
48.	AI3842	Artificial Neural Networks and Deep Learning	Major	1	AI3812	AI3841	6
49.	AI3841	Artificial Neural Networks and Deep Learning Lab	Major	2	AI3812	AI3842	6
50.	AI3832	Computer Vision	Major	1	AI3812	AI3831	6
51.	AI3831	Computer Vision Lab	Major	2	AI3812	AI3832	6
52.	AI3312	Knowledge Representation and Reasoning	Major	1	AI1133	AI3311	6
53.	AI3311	Knowledge Representation and Reasoning Lab	Major	2	AI1133	AI3312	6
54.	AI3072	Advanced Statistics	Major	1	MTAI2063	AI3071	6
55.	AI3071	Advanced Statistics Lab	Major	2	MTAI2063	AI3072	6
56.	ACAI3003	Financial Accounting	Major	1	Nil	Nil	6

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57.	AI4272	HCI and Computer Graphics	Major	1	AI3223	Nil	7
58.	AI4271	HCI and Computer Graphics Lab	Major	1	AI3223	Nil	7
59.	AI4322	Data Mining	Major	1	AI2313	Nil	7
60.	AI4321	Data Mining Lab	Major	1	AI2313	Nil	7
61.	AI4822	Natural Language Processing	Elective	1	AI2822	AI4821	7
62.	AI4821	Natural Language Processing Lab	Elective	1	AI2822	AI4822	7
63.	AI4882	Speech Processing	Elective	1	AI2822	AI4881	7
64.	AI4881	Speech Processing Lab	Elective	1	AI2822	AI4882	7
65.	HMAI4033	Technical and Business Writing	Allied	1	AIG1113	Nil	7
66.	AI4912	Design Project-I	Major	1	AI3223 & 90 Cr Hrs.	Nil	7