IQRA UNIVERSITY

BACHELORS IN ARTIFICIAL INTELLIGENCE-BS(AI)

Structure of BS(AI) Programs	Category: Courses (Credit Hours)
Total Credit Hours: 136 Total Courses: 44 Semesters: 8 Duration: 4 Years	General Education: 12 (30) Major courses: 18 (64) + 7 (21) Allied/interdisciplinary courses: 5 (15) Internship/field experience: N/A Capstone project: 2 (6) Total: 44 (136)

SCHEME OF STUDIES

S #	COURSE CODES	CLASS	COURSE TITLE	CREDIT HOURS	PRE-REQ	CO-REQ
SEMESTER 1						
1	CMC111	CORE	PROGRAMMING FUNDAMENTALS	3 + 0	-	CMC111-L
	CMC111-L	CORE	PROGRAMMING FUNDAMENTALS (Lab)	0 + 1		
2	GER111	GER	APPLICATION OF INFORMATION & COMMUNICATION TECHNOLOGIES	2 + 0	-	GER111-L
	GER111-L	GER	APPLICATION OF INFORMATION & COMMUNICATION TECHNOLOGIES (Lab)	0 + 1		
3	**GER152**	**GER**	**NATURAL SCIENCE (APPLIED PHYSICS)**	**2 + 0**	**-**	**GER152-L**
	GER152-L	**GER**	**NATURAL SCIENCE (APPLIED PHYSICS (Lab))**	**0 + 1**		
4	GER131	GER	CALCULUS AND ANALYTIC GEOMETRY	3 + 0	-	
5	GER121	GER	FUNCTIONAL ENGLISH	3 + 0	-	
				13+3(16)		
SEMESTER 2						
1	CMC112	CORE	OBJECT ORIENTED PROGRAMMING	3 + 0	CMC111	CMC112-L
	CMC112-L	CORE	OBJECT ORIENTED PROGRAMMING (Lab)	0 + 1	CMC111-L	
2	GER132	GER	DISCRETE STRUCTURES	3 + 0	GER131	
3	**CMC122**	**CORE**	**DIGITAL LOGIC DESIGN**	**2 + 0**	**GER152**	**CMC122-L**
	CMC122-L	**CORE**	**DIGITAL LOGIC DESIGN (Lab)**	**0 + 1**	**GER152-L**	
4	GER142	GER	IDEOLOGY AND CONSTITUTION OF PAKISTAN	2 + 0	-	
5	GER122	GER	EXPOSITORY WRITING	3 + 0	GER121	
6	MTE111	MATHS	MULTIVARIABLE CALCULUS	3 + 0	GER131	
				16+2(18)		

			SEMESTER 3			
1	CMC251	CORE	DATA STRUCTURES	3 + 0	CMC112	CMC251-L
	CMC251-L	CORE	DATA STRUCTURES (Lab)	0 + 1	CMC112-L	
2	CMC222	CORE	COMPUTER ORGANIZATION & ASSEMBLY LANGUAGE	3 + 0	**CMC122**	CMC222-L
	CMC222-L	CORE	COMPUTER ORGANIZATION & ASSEMBLY LANGUAGE (Lab)	0 + 1	**CMC122-L**	
3	AIC211	DOMAIN CORE	ARTIFICIAL INTELLIGENCE	2+ 0	CMC112	AIC211-L
	AIC211-L	DOMAIN CORE	ARTIFICIAL INTELLIGENCE (Lab)	0+ 1	CMC112-L	
4	CMC261	CORE	COMPUTER NETWORKS	3 + 0	**CMC122**	CMC261-L
	CMC261-L	CORE	COMPUTER NETWORKS (Lab)	0 + 1	**CMC122-L**	
5	MTE212	MATHS	PROBABILITY & STATISTICS	3 + 0	MTE111	
				14+4(18)		
			SEMESTER 4			
1	CMC241	CORE	OPERATING SYSTEMS	3 + 0	CMC251	CMC241-L
	CMC241-L	CORE	OPERATING SYSTEMS(Lab)	0 + 1	CMC251-L	
2	AIC212	DOMAIN CORE	PROGRAMMING FOR AI	2 + 0	AIC211	AIC212-L
	AIC212-L	DOMAIN CORE	PROGRAMMING FOR AI (Lab)	0 + 1	AIC211-L	
3	MTE213	MATH	LINEAR ALGEBRA	3 + 0	MTE111	
4	CMC252	CORE	ANALYSIS OF ALGORITHMS	3 + 0	CMC251	
5	MTE221	GER	TECHNICAL & BUSINESS WRITING	3 + 0	GER122	
6	GERXXX	GER	SOCIAL SCIENCES (ELECTIVE I)	2 + 0	GER122	
				16+2(18)		
			SEMESTER 5			
1	CMC371	CORE	SOFTWARE ENGINEERING	3 + 0	CMC252	
2	CMC362	CORE	INFORMATION SECURITY	3 + 0	CMC261	CMC362-L
	CMC362-L	CORE	INFORMATION SECURITY (Lab)	0 + 1	CMC261-L	
3	CMC331	CORE	DATABASE SYSTEMS	3 + 0	CMC241	CMC331-L
	CMC331-L	CORE	DATABASE SYSTEMS (Lab)	0 + 1	CMC241-L	
4	CSEXXX	DOMAIN ELEC	DOMAIN ELECTIVE 1	3 + 0	-	
5	AIC221	DOMAIN CORE	INTRODUCTION TO MACHINE LEARNING	2 + 0	AIC211	AIC221-L
	AIC221-L	DOMAIN CORE	INTRODUCTION TO MACHINE LEARNING (Lab)	0 + 1	AIC211-L	
				14+3(17)		

			SEMESTER 6			
1	AIC322	DOMAIN CORE	ARTIFICIAL NEURAL NETWORKS & DEEP LEARNING	3 + 0	AIC221	AIC322-L
	AIC322-L	DOMAIN CORE	ARTIFICIAL NEURAL NETWORKS & DEEP LEARNING (Lab)	0 + 1	AIC221-L	
2	AIE423	DOMAIN CORE	COMPUTER VISION	2 + 0	AIC221/ AIC211	AIE423-L
	AIE423-L	DOMAIN CORE	COMPUTER VISION (Lab)	0 + 1	AIC221-L/ AIC211-L	
3	CSEXXX	DOMAIN ELEC	DOMAIN ELECTIVE 2	2 + 1	-	
4	ESCXXX	GER	SOCIAL SCIENCE II	3 + 0	-	
5	AIC331	DOMAIN CORE	KNOWLEDGE REPRESENTATION & REASONING	2 + 0	CMC331	AIC331-L
	AIC331-L	DOMAIN CORE	KNOWLEDGE REPRESENTATION & REASONING (Lab)	0 + 1	CMC331-L	
6	**GER141**	**GER**	**ISLAMIC STUDIES**	**2 + 0**	**-**	
				14+4(18)		
			SEMESTER 7			
1	CMC491	CORE	FINAL YEAR PROJECT - I	0 + 3	CMC371 / AIC322	
2	CSEXXX	DOMAIN ELEC	DOMAIN ELECTIVE 3	2 + 1	-	
3	CSEXXX	DOMAIN ELEC	DOMAIN ELECTIVE 4	2 + 1	-	
4	CSEXXX	DOMAIN ELEC	DOMAIN ELECTIVE 5	2 + 1	-	
5	CMC442	CORE	PARALLEL & DISTRIBUTED COMPUTING	3 + 0	CMC241	CMC442-L
	CMC442-L	CORE	PARALLEL & DISTRIBUTED COMPUTING (Lab)	0 + 1	CMC241-L	
6	GER462	GER	TECHNOPRENEURSHIP	2 + 0	-	
				11+7(18)		
			SEMESTER 8			
1	CMC492	CORE	FINAL YEAR PROJECT - II	0 + 3	CMC491	
2	GER463	GER	PROFESSIONAL PRACTICES	2 + 0	-	
3	GER443	GER	CIVICS AND COMMUNITY ENGAGEMENT	2 + 0	-	
4	CSEXXX	DOMAIN ELEC	DOMAIN ELECTIVE 6	2 + 1	-	
5	CSEXXX	DOMAIN ELEC	DOMAIN ELECTIVE 7	2 + 1	-	
				8+5(13)		
			TOTAL CREDIT HOURS	**136**		

**Campus will decide to offer a course.