Bachelor of Science in Artificial Intelligence BS(AI)

Scheme of Study: Batch-2021-25

First Semester

Code	Course Title	CR	Prerequisite
ACCT-1081	Fundamentals of Accounting	3	
PHC-1003	Physics for Computing	2	
PHC-1003L	Physics for Computing - LAB	1	
ENG-1091	Functional English	3	
CS-1075	Introduction to ICT	2	
CS-1075L	Introduction to ICT- LAB	1	
COC-1070	Discrete Structures	3	
QT-1001	Translation of Al-Quran-I	0	
MA-0000	*Pre-Calculas-1	0	
Total		**15**	

Second Semester

Code	Course Title	CR	Prerequisite
STAT-2003	Probability and Statistics	3	
ENG-1092	Communication & Presentation Skills	3	Functional English
HU-1092	Pakistan Studies	2	
COC-1071	Programming Fundamentals	3	
COC-1071L	Programming Fundamentals-LAB	1	
SS-1093	Introduction to Psychology	3	
HU-1091	Islamic Studies	2	
QT-1002	Translation of Al-Quran-II	0	
MA-0001	*Pre-Calculas-2	0	
Total		**17**	

Third Semester

Code	Course Title	CR	Prerequisite
COC-2070	Database Systems	3	
COC-2070L	Database Systems-LAB	1	
MA-1001	Calculus	3	
COC-2071	Object Oriented Programming	3	Programming Fundamentals
COC-2071L	Object Oriented Programming-LAB	1	Programming Fundamentals
CSC-1074	Digital Logic Design	3	Physics for Computing
CSC-1074L	Digital Logic Design-LAB	1	Physics for Computing
COC-2072	Software Engineering Fundamentals	3	
QT-2001	Translation of Al-Quran-III	0	
Total		**18**	

Fourth Semester

Code	Course Title	CR	Prerequisite
MA-1005	Linear Algebra	3	
CSC-3073	Introduction to Artificial Intelligence	2	
CSC-3073L	Introduction to Artificial Intelligence-LAB	1	
ENG-3091	Technical Writing	3	
COC-2073	Data Structures and Algorithms	3	Programming Fundamentals
COC-2073L	Data Structures and Algorithms-LAB	1	Programming Fundamentals
CSC-2075	Computer Organization & Assembly Language	3	
CSC-2075L	Computer Organization & Assembly Language-LAB	1	
QT-2002	Translation of Al-Quran-IV	0	
Total		**17**	

Fifth Semester

Code	Course Title	CR	Prerequisite
CSC-3072	Design And Analysis of Algorithms	3	Data Structures and Algorithms

Sixth Semester

Code	Course Title	CR	Prerequisite
AIC-3072	Machine Learning	2	Programming for Artificial Intelligence

Code	Course Title	CR	Prerequisite	Code	Course Title	CR	Prerequisite
COC-3070	Data Communication and Networks	3		AIC-3072L	Machine Learning-LAB	1	Programming for Artificial Intelligence
COC-3070L	Data Communication and Networks-LAB	1		AIC-3073	Knowledge Representation & Reasoning	3	
COC-3071	Operating Systems	3	Data Structures and Algorithms	TE-1113	Introduction to Textiles	3	
COC-3071L	Operating Systems-LAB	1	Data Structures and Algorithms	AIE-XXXX	AI Elective I	3	
AIC-3071	Programming for Artificial Intelligence	2	Introduction to Artificial Intelligence	AIE-XXXX	AI Elective II	3	
AIC-3071L	Programming for Artificial Intelligence-LAB	1	Introduction to Artificial Intelligence	CSC-3075	Parallel and Distributed Computing	3	
MA-XXXX	Differential Equations	3	Calculus	QT-3002	Translation of Al-Quran-VI	0	
QT-3001	Translation of Al-Quran-V	0					
Total		17		**Total**		18	

Seventh Semester				Eight Semester			
Code	**Course Title**	**CR**	**Prerequisite**	**Code**	**Course Title**	**CR**	**Prerequisite**
COC-4070	BS Final Project-I	2		COC-4071	BS Final Project-II	4	
SS-4071	Professional Practices	3		COC-4072	Information Security	2	
AIC-4071	Artificial Neural Networks	2	Programming for Artificial Intelligence	COC-4072L	Information Security - LAB	1	
AIC-4071L	Artificial Neural Networks-LAB	1		SS-XXXX	Foreign Language (Chinese/German/French)	2	
AIC-4072	Natural Language Processing	2		MGT-4085	Entrepreneurship	3	
AIC-4072L	Natural Language Processing-LAB	1		AIC-4073	Computer Vision	2	Artificial Neural Networks
AIE-XXXX	AI Elective III	3		AIC-4073L	Computer Vision-LAB	1	Artificial Neural Networks
AIE-XXXX	AI Elective IV	3		QT-4002	Translation of Al-Quran-VIII	0	
QT-4001	Translation of Al-Quran-VII	0					
Total		17		**Total**		15	
Industrial Internship (4 weeks, 6days/week, 8 hours/day during summer holidays after 2nd year)						1	
Total Credits for BS(AI)				**135**			