

College of Information Technology
Bachelor of Science in Information Technology – Major in Artificial Intelligence



COURSE No.	UNIVERSITY REQUIREMENTS (30 CREDIT HOURS)	PREREQUISITE	CH
COMM 103	Language and Communication	None	3
HIST 103	History of Qatar	None	3
LAWC 305	Governance	None	3
SOCI 102	Islamic and World Cultures	None	3
UNIV 101	University Success	None	3
UNIV 201	Leadership, Entrepreneurship, and Innovation	None	3
ENGL 114	English Composition I	None	3
ENGL 115	English Composition II	ENGL 114	3
STDE 201	Sustainable Development	None	3
Foreign Language	Foreign Language Requirement	None	3
COURSE No.	Major Requirements (33 Credit Hours)	Prerequisite	CH
ITAI 311	Internet of Things *	ITAI 201	3
ITAI 460	Knowledge Based systems *	ITAI 201	3
ITAI 304	Robotics and Intelligent Systems *	ITAI 206	3
ITAI 301	Machine Learning *	ITAI 201	3
ITAI 306	Intelligent Embedded Systems *	ITCC201 & ITAI 201	3
ITAI 405	Natural Language Processing *	ITAI 201	3
ITAI 380	Cognitive Computing *	ITAI 201	3
ITAI 406	Advanced Artificial Intelligence *	ITAI 201	3
ITAI 404	Computer Vision and Visualization *	ITAI 301	3
ITAI 350	Neural Networks *	ITAI 301	3
ITAI 202	Artificial Intelligence programming *	ITCC 204	3

COURSE No.	COLLEGE REQUIREMENTS (48 CREDIT HOURS)	PREREQUISITE	CH
ITCC 102	Discrete Mathematics	None	3
ITCC 204	Computer Programming	None	3
ITCC 105	Calculus	None	3
ITCC 101	Linear Algebra *	ITCC 105	3
ITCC 250	Object Oriented Programming	ITCC 204	3
ITCC 201	Data Structures *	ITCC 250	3
STAT 201	Probability and Statistics *	ITCC 105	3
ITCC 104	Fundamentals of Information Technology	None	3
ITCC 103	Algorithms and Problem Solving *	ITCC 201	3
ITCC 106	Ethics and Professional Responsibilities	None	3
ITCC 306	Database Systems *	ITCC 250	3
ITCC 307	Software Engineering	ITCC 250	3
ITCS 303	Networks *	ITCC 104	3
ITAI 201	Introduction to Artificial Intelligence *	ITCC 204	3
ITCC 400	Practical Training	ITCC 307, and should pass at least 75 CH	3
ITCC 403	Graduation Project	ITCC400, and should pass at least 90 CH	3
Course No.	Major Elective Courses (9 Credit Hours)	Prerequisite	CH
ITAI 390	Special Topics in AI	None	3
ITEC 303	Data Analytics *	ITAI 201	3
ITEC 304	Cloud Computing *	ITCS 303	3
ITEC 402	Data Governance *	ITEC 307	3
ITEC 403	Mobile Applications Development *	ITCC 250	3
ITEC 404	Autonomous Systems	ITAI 201	3
ITEC 405	Big Data	ITAI 350	3
ITEC 406	Bioinformatics	ITEC 307	3
ITEC 305	IT Project Management and Entrepreneurship	None	3
ITEC 307	Data Mining	ITCC 306	3

(*) The student can request to register for the course concurrently with the pre-requisite.

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Program Plan



Academic Year 1 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCC 105	Calculus	3	ITCC 250	Object Oriented Programming	3
ITCC 204	Computer Programming	3	ITCC 101	Linear Algebra	3
ITCC 102	Discrete Mathematics	3	ITCC 104	Fundamentals of Information Technology	3
HIST 103	History of Qatar	3	UNIV 101	University Success	3
ENGL 114	English Composition I	3	ENGL 115	English Composition II	3
Total Credit Hours = 15			Total Credit Hours = 15		

Academic Year 2 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCC 201	Data Structures	3	ITCC 103	Algorithms & Problem Solving	3
ITAI 202	Artificial Intelligence Programming	3	ITCC 306	Database Systems	3
STAT 201	Probability and Statistics	3	ITAI 201	Introduction to Artificial Intelligence	3
ITCC 106	Ethics & Professional Responsibilities	3	UNIV 201	Leadership, Entrepreneurship & Innovation	3
COMM 105	Language & Communication	3	STDE 201	Sustainable Development	3
Total Credit Hours = 15			Total Credit Hours = 15		

Academic Year 3 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCS 303	Networks	3	ITAI 304	Robotics & Intelligent Systems	3
ITCC 307	Software Engineering	3	ITAI 311	Internet of Things	3
ITAI 306	Intelligent Embedded Systems	3	ITAI 350	Neural Networks	3
ITAI 380	Cognitive Computing	3	-----	Major Elective	3
ITAI 301	Machine Learning	3	Foreign Language	Foreign Language Requirement	3
Total Credit Hours = 15			Total Credit Hours = 15		

ITCC 400 Practical Training Total Credit Hours =3					
Academic Year 4 (30)					
Semester 1 - Fall Semester			Semester 2 - Spring Semester		
Course no	Course Title	CH	Course no	Course Title	CH
ITCC 403	Graduation Project	3	ITAI 460	Knowledge Based Systems	3
ITAI 404	Computer Vision & Visualization	3	ITAI 406	Advanced Artificial Intelligence	3
ITAI 405	Natural Language Processing	3	-----	Major Elective	3
-----	Major Elective	3	SOCI 102	Islamic & World Culture	3
LAW 305	Governance	3			
Total Credit Hours = 15			Total Credit Hours = 12		