

College of Information Technology
Bachelor of Science in Information Technology – Major in Cybersecurity



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
ITCS 203	Cybersecurity Programming	ITCC 204	3
ITCS 311	Cryptography	ITCC 101, ITCC 102	3
ITCC 301	Operating Systems *	ITCC 104 ITCC 201	3
ITCS 316	Web Development	ITCS 203	3
ITCS 317	Principles of Cybersecurity *	ITCS 303	3
ITCS 310	Network Security	ITCS 303	3
ITCS 312	Malware Analysis	ITCC 301 ITCC 307	3
ITCS 416	Information Assurance Compliance, Audit, and Risk Management	None	3
ITCS 407	Ethical Hacking and Penetration Testing	ITCS 310, ITCS 316	3
ITCS 417	Digital Forensics *	ITCC 301, ITCS 303	3
ITCS 401	Cyber-Physical Systems Security *	ITCS 310	3

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

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	ITCC 400, and should pass at least 90 CH	3
COURSE NO.	MAJOR ELECTIVE COURSES (9 CREDIT HOURS)	PREREQUISITE	CH
ITCS 315	Special Topics in Cybersecurity	None	3
ITCS 415	Blockchain Technology	ITCC 201, ITCS 311	3
ITCS 411	Risk Management	ITCS 317, ITCS 416	3
ITCS 412	Multimedia Security	ITCC 201, ITCS 310 ITCS 311	3
ITCS 413	Secure Systems Analysis and Design	ITCC 306, ITCC 307	3
ITCS 414	Wireless Networks and Security	ITCS 310	3
ITEC 304	Cloud Computing *	ITCS 303	3
ITEC 305	IT Project Management and Entrepreneurship	None	3
ITEC 403	Mobile Applications Development *	ITCC 250	3
ITEC 303	Data Analytics *	ITAI 201	3

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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 and Problem Solving	3
ITCS 203	Cybersecurity Programming	3	ITCC 306	Database Systems	3
STAT 201	Probability and Statistics	3	ITAI 201	Introduction to Artificial Intelligence	3
ITCC 106	Ethics and Professional Responsibilities	3	UNIV 201	Leadership, Entrepreneurship, and Innovation	3
COMM 103	Language and 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	ITCS 317	Principles of Cybersecurity	3
ITCC 307	Software Engineering	3	ITCS 310	Network Security	3
ITCS 311	Cryptography	3	ITCS 312	Malware Analysis	3
ITCC 301	Operating Systems	3	<u>Major Elec</u>	<u>Major Elective</u>	3
ITCS 316	Web Development	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	ITCS 417	Digital Forensics	3
ITCS 407	Ethical Hacking and Penetration Testing	3	ITCS 401	Cyber-Physical Systems Security	3
ITCS 416	Information Assurance Compliance, Audit, and Risk Management	3	<u>Major Elec</u>	<u>Major Elective</u>	3
<u>Major Elec</u>	<u>Major Elective</u>	3	SOCI 102	Islamic and World Culture	3
LAWC 305	Governance	3			
Total Credit Hours = 15			Total Credit Hours = 12		