

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

CONCENTRATION: CYBER SECURITY

Year 1

1st Semester						2nd Semester					
Cyber Security						Cyber Security					
Course Code	Course Title	L	P	CH	CR	Course Code	Course Title	L	P	CH	CR
CSCI101	Programming I	2	2	6	4	CSCI102	Programming II	2	2	6	4
CSCI105	Fundamentals of IT Support and Hardware	0	1	2	1	CSCI103	Fundamentals of Electronics and Digital Systems	2	1	4	3
CSCI106	Entrepreneurship in Technology	3	0	3	3	CSCI104	Introduction to Artificial Intelligence	2	1	4	3
GEN101	Emirates Studies	3	0	3	3	CYBR102	Cyber Security	2	1	4	3
MATH105	Discrete Mathematics	3	0	3	3	MATH106	Calculus	3	0	3	3
Total		11	3	17	14	Total		11	5	21	16

Year 2

1st Semester						2nd Semester					
Cyber Security						Cyber Security					
Course Code	Course Title	L	P	CH	CR	Course Code	Course Title	L	P	CH	CR
ENGL112	English for Academic Purposes	3	0	3	3	CSCI204	Design and Analysis of Algorithms	2	1	4	3
CSCI201	Data Structure	2	1	4	3	CSCI205	Computer Networks	2	1	4	3
CSCI202	Computer Org and Assembly Language	2	1	4	3	CSCI206	Embedded Systems	1	2	5	3
CYBR201	Information Assurance	0	1	2	1	CSCI207	Databases	2	1	4	3
CYBR202	Digital Forensics	2	1	4	3	CYBR203	Secure Software Development and Testing	2	1	4	3
MATH205	Linear Algebra	3	0	3	3	MATH208	Probability & Statistics	3	0	3	3
Total		12	4	20	16	Total		12	6	24	18

Year 3

1st Semester						2nd Semester					
Cyber Security						Cyber Security					
Course Code	Course Title	L	P	CH	CR	Course Code	Course Title	L	P	CH	CR
CSCI301	Automata, Computability, and Complexity	3	0	3	3	CSCI304	Computational Geometry	3	0	3	3
	Elective I	3	0	3	3	CSCI305	Project I	1	0	1	1
CSCI303	Computer Architecture	2	1	4	3	CSCI306	Human Computer Interaction	2	1	4	3
CYBR301	Ethical Hacking I	2	1	4	3	CSCI307	Internship	3	0	0	3
CYBR302	Offensive Security	0	1	2	1	CSCI308	Research Methods	2	0	2	2
MATH310	Graph Theory	3	0	3	3	CYBR303	Ethical Hacking II	2	1	4	3
Total		13	3	19	16	Total		16	2	17	18

Year 4

1st Semester						2nd Semester					
Cyber Security						Cyber Security					
Course Code	Course Title	L	P	CH	CR	Course Code	Course Title	L	P	CH	CR
CSCI401	Software Engineering	2	1	4	3	CSCI406	Project III	3	0	3	3
CSCI403	Project II	2	0	2	2	CYBR402	Cryptography	2	1	4	3
CSCI404	IoT	2	1	4	3		Core Electives II	3	0	3	3
CSCI405	Operating Systems	2	1	4	3						
CYBR401	Network Security	2	1	4	3						
Total		10	4	18	14	Total		8	1	10	9

Core Electives Basket (BSc. 15 CR) - (I)

Cyber Security					
Course Code	Course Title	L	P	CH	CR
CSCI601	Professional Ethics in Technology	3	0	3	3
MANG501	Project Management	3	0	3	3
CSCI602	Cloud Computing	2	1	3	3
CSCI603	Quantum Computing	2	1	3	3
CSCI604	Blockchain Security	2	1	3	3
CSCI605	Mobile App Development	1	2	4	3
CSCI606	Computational Biology	2	1	3	3
CSCI607	Financial Computing	2	1	3	3
CSCI608	Social Network Analysis	2	1	3	3
CSCI609	Quantum Mechanics for Scientists and Engineers	2	1	3	3
CSCI610	Quantum Computing and Quantum Information Science	2	1	3	3

L	Lecture / Theoretical	المحاضرة / النظري
P	Practical / Lab	العملي / المختبر
CH	Contact Hours/Teaching Hours	ساعات الاتصال / ساعات التدريس
CR	Credit Hours	الساعات المعتمدة