

Cybersecurity Program

Program Structure and Credit Hours

The B.Sc. degree in Cybersecurity requires the completion of 120 credit hours. In addition, students are required to complete a 16-week internship at the end of the program. This internship experience is equivalent to three credit hours, bringing the total graduation requirement 123 credit hours.

Program Structure

The Bachelor of Science in Cybersecurity program requires the completion of 123 credit hours, which include the following courses:

Type of Courses	Credit Hours
1. General Education Requirements	
(a) University Compulsory Courses	18
(b) University Elective Courses	12
2. Cybersecurity Program Courses	
(a) Program Core Courses	84
(b) Program Elective Courses	9
Total Credit Hours	123

1. General Education Courses

a. University Compulsory Courses (18 Cr. Hrs.)

Course No.	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
ARB113 or ARB116	Arabic Written Expression Arabic as a Foreign Language for Non-Arabs	3	0	0	3	-
INN311	Innovation & Entrepreneurship	3	0	0	3	-
ISL114 or ISL112	Islamic Culture Islamic Culture in English for Non-Arabs	3 3	0 0	1 0	3 3	- -
STA114	Statistics (Science)	2	2	0	3	-
EMS112	Emiratis Studies	3	0	0	3	-
ENG114	Advanced English Writing	3	0	0	3	-

b. University Elective Courses (12 Cr. Hrs.)

Course Code	Course Title	Th.	Lab.	Tut.	Cr. Hrs.	Prerequisite
1. Humanities / Arts (3 Credit Hours)						
ART111	Introduction to Arts	3	0	0	3	-
ART112	Introduction to Aesthetics	3	0	0	3	-
ART113	Introduction to Performing Arts	3	0	0	3	-
FRE212	Francophone world: Language and Culture	3	0	0	3	-
ISH211	Islamic Civilization	3	0	0	3	-
LAW262	Human Rights	3	0	0	3	-
WLT111	World Literature	3	0	0	3	-
2. Natural Sciences (3 Credit Hours)						
AST211	Astronomy	3	0	0	3	-
BIO111	General Biology	3	0	0	3	-
CHM111	General Chemistry	3	0	0	3	-
PHY111	General Physics	3	0	0	3	-
3. Social or Behavioral Sciences (6 Credit Hours)						
THI211	Critical Thinking	3	0	0	3	-
PSY111	General Psychology	3	0	0	3	-
INF112	Media Culture	3	0	0	3	-
SSW111	Social Responsibility	3	0	0	3	-
LAW112	Work Ethics	3	0	0	3	-
LED111	Leadership and Team Building	3	0	0	3	-

2. Cybersecurity Program Courses

a. Program Core Courses (84 Cr. Hrs.)

Course Number	Course Title	Credit Hours	Weekly Hours			Prerequisite
			Lecture	Lab	Tut	
INT100	Introductory Programming	3	2	2	2	-
INT101	Calculus	3	3	0	2	-
INT201	Object Oriented Programming	3	2	2	2	INT 100
INT202	Discrete Mathematics	3	3	0	2	INT 101
INT203	Computer Organization	3	3	0	0	-
INT205	Fundamentals of Data Communication and Networking	3	2	2	0	INT 203 OR COE246
INT206	Fundamentals of Web Systems	3	2	2	2	INT201
INT209	Data Structures	3	3	0	2	INT201 and INT202
INT301	Operating Systems	3	2	2	0	INT203 OR COE246
INT302	Database Management Systems	3	2	2	0	INT201
INT303	Fundamentals of Information Security	3	3	0	0	INT205
INT311	Advanced Computer Networks	3	2	2	0	INT205
INT430	Artificial Intelligence	3	3	0	0	INT302
INT432	Ethical Hacking	3	2	2	0	CYB441, CYB452
DAT100	Introduction to Data Analytics	3	2	2	0	INT100
CYB261	Cryptography	3	3	0	0	INT101, STA114
CYB311	Software Security	3	2	2	0	INT303, DAT100
CYB341	Networks Security	3	2	2	0	INT311, CYB261, INT303
CYB351	Cloud Computing Architecture and Security	3	2	2	0	INT303
INS205	Systems Analysis and Design	3	3	0	0	INT201
CYB381	Cybersecurity Policies, Laws, Ethics, and Risk Management	3	3	0	0	INT303
CYB492	Internship	3	3	0	0	Year 4
CYB491	Cybersecurity Capstone Project	3	3	0	0	Year 4
CYB412	Malware Analysis	3	2	2	0	CYB311
CYB441	Network Defense	3	2	2	0	CYB341
CYB451	Security Analytics	3	2	2	0	CYB441

CYB452	Web Security	3	3	0	2	INT206, CYB341, INS205
CYB481	Digital Forensics	3	2	2	0	CYB412,CYB452

b. Program Elective Courses (9 Cr. Hrs.)

Course Number	Course Title	Credit Hours	Weekly Hours			Prerequisite
			Lecture	Lab	Tut	
CYB321	Database Security	3	2	2	0	CYB261, INT302
CYB454	IoT Security	3	3	0	0	CYB341
CYB455	Healthcare Security and Privacy	3	3	0	0	INT303
CYB456	Blockchain and Cryptocurrency Security	3	2	2	0	CYB261
CYB461	Advanced Cryptography	3	3	0	0	CYB261
CYB462	Introduction to Steganography	3	2	2	0	CYB261
INT429	Mobile Applications	3	2	2	0	INT301, INT302
CYB472	Operating Systems Security	3	2	2	0	INT301, INT303
CYB411	Cyberwarfare	3	3	0	0	INT303
CYB482	Advanced Ethical Hacking	3	2	2	0	INT432
CYB483	Artificial Intelligence Security	3	2	2	0	INT430, CYB451
CYB493	Special Topics in Cybersecurity	3	3	0	0	Completion of (90 CHs)