Al-Balqa Applied University

Faculty of Artificial Intelligence

Intelligent Systems Department

جامعـة البلقاء التطبيقيـة

كلية الذكاء الاصطناعي

قسم الأنظمـة الذكية

Al-Balqa Applied University

Faculty of Artificial Intelligence

Intelligent Systems Department

The Curriculum for the B.Sc. Degree in

Information and Cyber security

Al-Balqa Applied Universit*y*

Faculty of Artificial Intelligence

Intelligent Systems Department

جامعـة البلقاء التطبيقيـة

كلية الذكاء الاصطناعي

قسم الأنظمـة الذكية

Al-Balqa Applied University
Curriculum for the Bachelor Degree in Information and Cyber Security
September 2019

The curriculum for the B.Sc. degree in Information and Cyber Security consists of (132) credit hours distributed as follows:

Requirements	Credit Hours	Percentage
University Requirements	24	%18
Faculty Requirements	20	%15
Compulsory Specialization Requirements	70	%53
Elective Specialization Requirements	12	%09
Supportive Specialization Requirements	6	%05
Total	132	%100

University Requirements (24 Credit Hours) distributed as follows:

a)   University Compulsory Requirements (18 Credit hours)

Course Number	Course Name	Credit hours	Weekly Hours		Pre-requisite
			Theory	**Practical**	
AAL101	Applied Arabic Language	3	3	0	--
AEL101	Applied English Language (1)	3	3	0	--
AEL102	Applied English Language (2)	3	3	0	AEL101
NE101	National Education and University Behavior	3	3	0	--
35001101	Military Sciences	3	3	0	--
CS101	Computer Skills and E-Learning	1	1	0	--
IEC101	Innovation, Entrepreneurship and Creativity	2	2	0	--
Total		**18**	**18**	**0**	

b)   University Elective Requirements (6 Credit Hours)

Course Number	Course Name	Credit Hours
36001101	Communication Skills	3
36002102	Principles of Psychology	3
36003103	Jordanian Society	3
36004104	Sport and Health for all	3
36005105	Islamic Culture	3
36009111	Economic concepts	3
36009110	Contemporary Management Concepts and Skills	3
36012109	History of Righteous Caliphs	3
36007107	Agriculture in Jordan	3
36008108	Environment and Society	3
36009114	Jerusalem (Palestinian Cause)	3
36009112	Law, Media and Society	3
36009109	Islam and Life	3
36009115	Digital Society	3

Al-Balqa Applied University

Faculty of Artificial Intelligence

Intelligent Systems Department

جامعـة البلقـاء التطبيقيـة

كليـة الذكـاء الاصطناعـي

قسم الأنظمـة الذكية

Faculty Requirements (20 Credit Hours)

Course Number	Course Name	Credit hours	Weekly Hours		Pre-requisite
			Theory	**Practical**	
AR142	Introduction to Artificial Intelligence	3	3	0	*30202102
AR241	Artificial Intelligence Programming	3	2	3	AR142
30801101	Computer Skills (2) for Science Colleges+	3	2	3	CS101*
30801203	Object Oriented Programming	3	3	0	30801101
30801204	Object Oriented Programming Lab.	1	0	3	30801203*
AR231	Introduction to Unix	1	0	3	--
30202101	Calculus (1)	3	3	0	--
30202102	Calculus (2)	3	3	0	30202101
Total		**20**	**16**	**12**	

Specialization Requirements (82 credit Hours) distributed as follows:

a) **Specialization Compulsory Requirements (70 credit hours)**

Course Number	Course Name	Credit hours	Weekly Hours		Pre-requisite
			Theory	**Practical**	
ICS140	Principles of Information and Cyber Security	3	3	0	30801101
AR243	Machine Learning	3	3	0	AR142
DS245	Machine Learning Lab.	1	0	3	AR243*
ICS222	Web Programming	2	2	0	30801203
ICS224	Web Programming Lab.	1	0	3	ICS222*
ICS242	Scripting Programming	2	1	3	30801203
ICS244	Fundamentals of Cryptography	3	3	0	ICS261
ICS261	Introduction to Number Theory	2	2	0	30202101
AR211	Data Structures	3	3	0	30801203
AR212	Design and Analysis of Algorithms	3	3	0	AR211
AR214	Data Structures and Algorithms Lab.	1	0	3	AR212*
30102212	Digital Logic Design	3	3	0	30801101
30102213	Digital Logic design Lab.	1	0	3	30102212
ICS230	Computer Networks (1)	3	3	0	AR231
ICS331	Computer Networks (1) Lab.	1	0	3	ICS230
30801243	Database Design and Management 1	3	3	0	AR211
30801244	Database Design and Management Lab. 1	1	0	3	30801243
ICS337	Computer Networks (2)	3	3	0	ICS230
30102324	Operating Systems	3	3	0	AR211
ICS346	Networks Security	3	3	0	ICS337
ICS348	Networks Security Lab.	1	0	3	ICS346*
ICS339	Mobile Application Development	3	2	3	30801203
ICS443	Digital Forensics	3	2	3	ICS346
ICS445	Risk Management	3	3	0	ICS346
ICS441	Penetration Testing	3	2	3	ICS346

Al-Balqa Applied University

Faculty of Artificial Intelligence

Intelligent Systems Department

جامعـة البلقاء التطبيقيـة

كلية الذكاء الاصطناعي

قسم الأنظمـة الذكية

Course Number	Course Name	Credit	Theory	Practical	Prerequisite
ICS442	Cyber Law and Ethics	3	3	0	ICS346
ICS471	Graduation Project (1)	1	-	-	+ 90 Credit Hours
ICS472	Graduation Project (2)	2	-	-	ICS471
ICS474	Training for Cyber Security Students	6	-	-	+ 90 Credit Hours
Total		**70**	**55**	**33**	

b) Specialization Elective Requirements (12 hours)

Course Number	Course Name	Credit hours	Weekly Hours		Pre-requisite
			Theory	**Practical**	
ICS335	Systems analysis and Design	3	3	0	AR212
ICS440	Web Security	3	3	0	ICS346
ICS344	Advanced Cryptography	3	3	0	ICS244
ICS347	Internet of Things Security	3	3	0	ICS346
ICS444	Secure Software Engineering	3	3	0	ICS339
ICS448	Cloud Computing Security	3	3	0	ICS346
ICS446	Policy Design and Analysis	3	3	0	ICS346
ICS447	Cyber Intelligence and Auditing	3	3	0	ICS346
ICS449	Special Topics in Information and Cyber Security	3	3	0	+ 90 Credit Hours

Supportive Specialization Courses (6 credit Hours)

Course Number	Course Name	Credit hours	Weekly Hours		Pre-requisite
			Theory	**Practical**	
30801214	Discrete and Mathematical Structures	3	3	0	30202101
30202131	Probability and Statistics	3	3	0	30202101
Total		**6**	**6**	**0**	