

Al-Ahliyya Amman University
Faculty of Information Technology
(132) Credit Hours



Study Plan (2021-2022) for Bachelor of Science in
Data Science and Artificial Intelligence

First: University Requirements: (24) Credit Hours

1) Compulsory University Requirements (12) Credit Hours

Course No	Course Title	Cr.H	Prerequisite	Exception
A0161101	Arabic Communication Skills	3	A0161100	-
A0161201	English Communication Skills	3	A0161200	-
A0161301	National Education	3	-	-
A0161401	Military Sciences	3	-	Non-Jordanians

2) Elective University Requirements (12) Credit Hours

A) Group 1 (6) Credit Hours

Course No	Course Title	Cr.H	Prerequisite	Exception
A0161501	Islamic Culture	3	-	-
A0161601	Contemporary Issues	3	-	-
A0161701	History of Jordan and Palestine	3	-	-
A0161901	Media and Public Relations	3	-	-
A0411601	Legal Education and Human Rights	3	-	Law Students
A0161703	Archaeology and Tourism in Jordan	3	-	Marketing Students

B) Group 2 (6) Credit Hours

Course No	Course Title	Cr.H	Prerequisite	Exception
A0161602	Critical Thinking Skills	3	-	-
A0161603	Entrepreneurship Skills	3	-	-
A0161801	Environment and Public Safety	3	-	-
A0181100	Sport and Health	3	-	Physical and Health Education Students
A0612303	Community Health	3	-	Nursing Students
A0871103	Principles of Renewable Energy	3	-	Electrical Engineering Students

Community Service is a mandatory requirement of (10) hours.

* This course must be successfully passed in order to advance to any of the succeeding courses.



Ref.: Deans' Council Session (46/2020-2021) Decision No: 24

Date: 16/08/2021

Second: Faculty Compulsory Requirements (21) Credit Hours

Course No	Course Title	Cr.H	Prerequisite	Concurrent
A0111101	Mathematics (1)	3	-	-
A0311101	Discrete Mathematics	3	-	-
A0371201	Introduction to Information Technology	3	-	A0331700
A0331202	Introduction to Programming *	3	A0371201	A0331203
A0331203	Introduction to Programming Lab	1	-	A0331202
A0341301	Networks and Information Security Essentials	3	A0371201	-
A0312201	Object-oriented Programming	3	A0331202	A0312202
A0312202	Object-oriented Programming Lab	1	-	A0312201
A0334600	Ethical and Professional Issues in Computing	1	A0331202	-

Third: Major Requirements (87) Credit Hours

A) Compulsory Major Requirements (78) Credit Hours

Course No	Course Title	Cr.H	Prerequisite	Concurrent
A0111103	Statistics and Probability	3	A0111101	-
A0112101	Linear Algebra	3	A0111101	-
A0311301	Digital Logic Design	3	A0311101	-
A0312203	Visual Programming	3	A0312201	-
A0312301	Computer Organization and Architecture	3	A0311301	-
A0312401	Fundamentals of Databases	3	A0331202	A0312402
A0312402	Fundamentals of Databases Lab	1	-	A0312401
A0312403	Systems Analysis and Design	3	A0312401	-
A0313101	Algorithms Analysis and Design	3	A0312101	-
A0313201	Internet Applications Development (1)	3	A0312401	A0313202
A0313202	Internet Applications Development Lab (1)	1	-	A0313201
A0313203	Internet Applications Development (2)	3	A0313201	-
A0313301	Operating Systems	3	A0312301	-
A0314301	Parallel Computing and Distributed Systems	3	A0313301	-
A0312101	Data Structures	3	A0312201	-

Course No	Course Title	Cr.H	Prerequisite	Concurrent
A0372401	Introduction to Data Science	3	A0312401	-
A0372402	Statistics and Probability for Data Science	3	A0111103	-
A0373401	Data Engineering	3	A0372401	A0373402
A0373402	Data Engineering Lab	1	-	A0373401
A0373403	Data Mining	3	A0372401	-
A0373501	Artificial Intelligence	3	A0312101	-
A0373502	Machine Learning and Deep Learning	3	A0373501	-
A0374401	Big Data	3	A0373401	-
A0374402	Data Visualization	3	A0373401	-
A0374501	Natural Language Processing	3	A0373502	-
A0374502	Pattern Recognition	3	A0373502	-
A0374503	Business Intelligence	3	A0374402	-
A0374601	Practical Training	0	Pass 90 Cr. Hrs	-
A0374602	Graduation Project (1)	1	Pass 90 Cr. Hrs	-
A0374603	Graduation Project (2)	2	A0334602	-

B) Elective Major Requirements (9) Credit Hours

Course No	Course Title	Cr.H	Prerequisite	Concurrent
A0373503	Information Retrieval	3	A0373501	-
A0374504	Computer Vision	3	A0373501	-
A0373504	Robotics Programming	3	A0312101	-
A0373404	Recommender Systems	3	A0373403	-
A0374403	Social Network Analysis	3	A0374402	-
A0374404	Selected Topics in Data Science	3	Dept. Approval	-
A0374505	Selected Topics in Artificial Intelligence	3	Dept. Approval	-
A0342304	Introduction to Linux System	3	A0341301	-

Fourth: Remedial Requirements (to a student who has not passed the level exam)

Course No	Course Title	Cr.H	Prerequisite
A0161100	Remedial Arabic Language	3	-
A0161200	Remedial English Language	3	-
A0331700	Remedial Computer Skills	3	-

