



Recommended Study Plan for Bachelor's
Degree in Data Science & Artificial Intelligence
for year 2019-2020

First Year					
First Semester			Second Semester		
Course No.	Course Title	Cr. Hrs.	Course No.	Course Title	Cr. Hrs.
11102	Introduction to Computer Science	3	11103	Structured Programming	3
20132	Calculus (1)	3	11151	Structured Programming Lab	1
31121	English Language	3	14140	Introduction to Data Science	3
31151	National Education	3	20133	Calculus (2)	3
31153	Introduction to Society, Technology and Environment Protection	0	20134	Discrete Mathematics (1)	3
	Elective University Requirements (General)	3	31111	Arabic Language	3
		Total			16
		15			

Second Year					
First Semester			Second Semester		
Course No.	Course Title	Cr. Hrs.	Course No.	Course Title	Cr. Hrs.
11206	Object Oriented Programming	3	11212	Data Structures and Introduction to Algorithms	3
11253	Object Oriented Programming Lab	1	14270	Statistics and Probability for Data Science	3
14260	Data Engineering	3	14362	High Performance Computing for Big Data	3
14261	Data Engineering Lab	1	20200	Technical Writing and Communication Skills	3
20233	Statistical Methods	3	31251	Military Science	3
20234	Linear Algebra	3		Elective University Requirements (General)	3
	Elective University Requirements (Scientific, Practical)	3			Total
		Total			18
		17			

Third Year					
First Semester			Second Semester		
Course No.	Course Title	Cr. Hrs.	Course No.	Course Title	Cr. Hrs.
11313	Algorithms Design and Analysis	3	11436	Distributed Systems	3
11323	Database Systems	3	13477	Software Engineering	3
11335	Operating Systems	3	14350	Computer Architecture for Machine Learning	3
11354	Database Systems Lab	1	14364	Data Visualization	3
11355	Operating Systems Lab	1	14465	Data Mining	3
14330	Artificial Intelligence	3			Total
	Elective University Requirements (Scientific, Practical)	3			15
		Total			
		17			

Fourth Year					
First Semester			Second Semester		
Course No.	Course Title	Cr. Hrs.	Course No.	Course Title	Cr. Hrs.
11449	Computer and Society	1	14493	Graduation Project 2	2
11464	Information Systems Security	3		Elective University Requirements (Scientific, Practical)	3
14351	Natural Language Processing	3		Elective Program Requirements	9
14452	Pattern Recognition	3			Total
14466	Business Intelligence	3			14
14492	Graduation Project 1	1			
	Elective Program Requirements	3			
		Total			
		17			