



Study Plans

Faculty : Computing

Dept : Data Science

Major : 140403 Data Science

Edition : 44

Total HRS : 194

Level			
course code	course name	Prerec	Prerec Name
QR1101	The Holy Qur'an (1)		
SE1101	Computational Thinking & Problem Solving		
MTH1105	Calculus 1		
ELCE1201	English Language 1		
CS1101	Discrete Structures 1		

Level			
course code	course name	Prerec	Prerec Name
ICC1201	Islamic Culture (1)		
CS1211	Computer Programming 1	SE1101	& Computational Thinking Problem Solving
ELCE1202	English Language 2	ELCE1201	English Language
MTH1211	Linear Algebra 1	MTH1105	Calculus
PHY1118	General Physics 1		

Level			
course code	course name	Prerec	Prerec Name
DS1302	Topics in Computing		
ELCE1203	English Language 3	ELCE1202	English Language
BA1901	Career Preparation Skills		
CS1312	Computer Programming 2	CS1211	Computer Programming
MTH1501	Elementary Statistics and probability		

Level			
course code	course name	Prerec	Prerec Name
DS2101	Introduction to Data Science		
QR2102	The Holy Qur'an (2)	QR1101	The Holy Qur'an
CEN2002	Hardware and Software Interface	CS1312	Computer Programming
DS2111	Applied Statistics for Data Science	MTH1501	Elementary Statistics and probability
MTH2102		MTH1105	Calculus

Level			
course code	course name	Prerec	Prerec Name
ARS1601	Arabic Writing and Editing		
ICC2202	Islamic Culture (2)	ICC1201	Islamic Culture
DS2221	Data Structures	CS1312	Computer Programming
DS2212	Data Collection and Wrangling	DS2111	Applied Statistics for Data Science
SE2102	Foundations of Software Engineering	CS1312	Computer Programming
CS2342	Operating Systems Fundamentals	CEN2002	Hardware and Software Interface
CS2231	Database Fundamentals	CS1312	Computer Programming

Level			
course code	course name	Prerec	Prerec Name
CEN2003	Computer Networking	CS2342	Operating Systems Fundamentals
DS2302	Advanced Database Systems	CS2231	Database Fundamentals
DS2313	Data Analysis 1	DS2212	Data Collection and Wrangling
DS2301	Research Methods in Data Science	DS2101	Introduction to Data Science
CS2315	Algorithm Fundamentals		

Level			
course code	course name	Prerec	Prerec Name
DS3111	Project Management in Data Science		
DS3122	Data Modeling 1	DS2111	Applied Statistics for Data Science
DS3101	Data Management and Warehousing		
DS3114	Data Analysis 2	DS2313	Data Analysis
QR3103	The Holy Qur'an (3)	QR2102	The Holy Qur'an
CS3251	Web Development Fundamentals	CS1312	Computer Programming
		CS2231	Database Fundamentals

Level			
course code	course name	Prerec	Prerec Name
DS3232	Data Security	CEN2003	Computer Networking
DS3223	Data Modeling 2	DS3122	Data Modeling
		MTH2102	
AI2360	Principles and Techniques of Artificial Intelligence	CS2315	Algorithm Fundamentals
ICC3203	Islamic Culture (3)	ICC2202	Islamic Culture

Level			
course code	course name	Prerec	Prerec Name
DS3388	COOP		

Level			
course code	course name	Prerec	Prerec Name
DS4191	Capstone Project 1		
DS4125	Applied Data Mining	DS3114	Data Analysis
DS4115	Probabilistic Decision Making and Risk Analysis	DS3114	Data Analysis
QR4104	The Holy Qur'an (4)	QR3103	The Holy Qur'an

Level			
course code	course name	Prerec	Prerec Name
DS4215	Business Analytics	DS3114	Data Analysis
DS4292	Capstone Project 2	DS4191	Capstone Project
DS4201	Ethical Considerations in Data Science		
DS4226	Data Visualization	DS3122	Data Modeling
ICC4204	Islamic Culture (4)	ICC3203	Islamic Culture
DS4203	Big Data	DS2302	Advanced Database Systems

Level			
course code	course name	Prerec	Prerec Name
DS4304	Cloud Data Management	DS4203	Big Data
DS4325	Social Media Analytics	DS3114	Data Analysis
DS4301	Data Policy and Governance		
DS4393	Capstone Project 3	DS4292	Capstone Project



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CS4484	Bioinformatics	AI2360	Principles and Techniques of Artificial Intelligence
CS4455	Advanced Web Development	CS3251	Web Development Fundamentals
BA1902	Entrepreneurship and Innovation		
NUT1101	Nutrition and Health		
PSY1101	Research and Innovation		
CS4244	Parallel and Distributed Computing		
TOR1101	Introduction to Hospitality		
DS3051	Natural Language Processing	DS3114	√ Data Analysis
DS3059	Big Data Optimization	DS4203	Big Data
		MTH2102	
DS3058	Information Retrieval	DS2313	√ Data Analysis
DS3057	Time Series and Forecasting	DS3223	√ Data Modeling
DS3056	Data Science for Finance	DS2313	√ Data Analysis
DS3055	Data Science for Sports	DS3114	√ Data Analysis
DS3052	Special Topic in Data Science	DS4125	Applied Data Mining
DS3053	Data Science for Hajj and Umrah	DS3114	√ Data Analysis
DS3054	Data Science for Healthcare	DS3114	√ Data Analysis