BACHELOR OF DATA SCIENCE COURSE CURRICULUM

NEW UNIT CODE	UPDATED UNITS	CREDITS	PRE-REQUISITES OR CO-REQUISITES
SEMESTER 1			
BDS MAT 111	Discrete Mathematics	3	NIL
BDS MAT 110	Introduction to Statistics and Probability	3	NIL
BDS CSC 101	Introduction to Computer Programming	3	NIL
BDS DSC 101	Introduction to Database	3	NIL
BDS BUS 101	Foundation Skill - 1 : Personal & Career Foundation	1	NIL
	Total Semester 1 Credits	**13**	
SEMESTER 2			
BDS MAT 103	Linear Algebra	3	NIL
BDS MAT 104	Calculus	3	NIL
BDS DSC 102	Introduction to Data Science	3	Introduction to Programming
BDS QTT 101	Statistical Data Analysis	3	Introduction to Statistics and Probability
BDS LIB 101	Foundation Skill - 2 Ethics & Moral Reasoning	1	Foundation Skills 1: Personal & Career Foundations
	Total Semester 2 Credits	**13**	
SEMESTER 3			
BDS MAT 205	Advanced Calculus	3	Calculus
BDS MAT 206	Algorithms and Data Structures	3	Introduction to Computer Programming
BDS DSC 203	Data Integration and Warehousing	3	Introduction to Databases
BDS DSC 205	Operating Systems & Networking	3	NIL
BDS ORG 201	Employability and Practitioner Skills Series 1: Emotional Intelligence	1	Foundation Skills 1 & Foundation Skills 2
	Total Semester 3 Credits	**13**	

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SEMESTER 4			
BDS MAT 208	Advanced Linear Algebra and Applications	3	Linear Algebra
BDS CSC 204	Web Applications Development (Java Track) & Analytics	3	Introduction to Computer Programming
BDS MKT 202	Cloud Computing	3	Operating Systems & Networking
BDS CSC 203	Machine Learning	3	Introduction to Data Science
BDS HRM 201	Employability and Practitioner Skills Series 2: Leadership, Teamwork, Global Dexterity	1	Employability and Practitioner Skills Series 1: Emotional Intelligence
	Total Semester 4 Credits	**13**	
SEMESTER 5			
BDS QTT 302	Simulation Modelling with Python	3	Introduction to Computer Programming
BDS DSC 310	Deep Learning	3	Machine Learning
BDS DSC 311	NLP, Language Models & Analytics	3	Machine Learning
BDS PRO 301	Data Science Capstone Project I	3	PR: Introduction to computer programming, Introduction to Data science and completed any 8 subjects in addition to these specific subjects
BDS COM 301	Employability and Practitioner Skills Series 3: Communicating Effectively	1	Employability and Practitioner Skills Series 2: Leadership, Teamwork, Global Dexterity
	Total Semester 5 Credits	**13**	
SEMESTER 6			
BDS DSC 312	Computer Vision with Multi-modal models & Analytics	3	Deep Learning
BDS DSC 313	Generative AI and Applications in Data Science	3	Deep Learning
BDS DSC 309	Big Data Processing Techniques and Platforms	3	Machine Learning
BDS PRO 302	BDS Data Science Capstone Project II	3	Data Science Capstone Project I
BDS BUS 302	Employability Skills - 4 (Innovation, Creativity, Agility)	1	Employability and Practitioner Skills Series 3: Communicating Effectively
	Total Semester 6 Credits	**13**	
	Total Course Credits	**78**	

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