

AY2025-2026
Curriculum for Bachelor of Computing (Hons) in Data Science and Artificial Intelligence

TAISP

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	T-Core	T-MPE	ICC			BDE	Total AU
				Common Core	Professional Series	Care, Serve & Learn		
1	3	21	0	8	2	0	4	38
2	13	12	0	8	0	0	10	43
3	0	6	6	0	10	3	3	28
4	10	6	9	0	1	0	1	27
Total	26	45	15	16	13	3	18	136

Recommended Course Schedule

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC1303	Programming with Data Structures and Algorithms	T-Core	4	Nil
MH1805	Calculus	T-Core	4	Nil
MH1812	Discrete Mathematics	T-Core	3	Nil
SC1301	Writing Across the Disciplines	C-Core	3	Nil
SC5401	Master Class 1 (Turing on Computability and Intelligence)	BDE	3	MH1812 (co-requisite)
			17	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC1315	Master Class 2 (Artificial Intelligence)	T-Core	3	SC1303
SC2500	Probability and Statistics	T-Core	4	MH1805
SC1305	Linear Algebra	T-Core	3	Nil
SC1302	Ethics Seminar (CC0003 equivalent)	C-Core	3	Nil
CC0015	Health & Wellbeing	C-Core	2	Nil
SC3021	Data Science Fundamentals	Core	3	SC1303
HW0218	Communication Across the Sciences	Professional Series	2	SC1301
			20	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-requisite
SC1079	ACI Immersion Trip	BDE	1	Year 1
			1	
Year 1 Total AU			38	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2301	Algorithm Design & Analysis	T-Core	3	SC1303
SC2302	Object Oriented Design & Programming	T-Core	3	SC1303
SC5403	Master Class 3	BDE	3	Nil
SC5915	URECA (Part 1)	BDE	-	(Continue in Semester 2)
SC2006	Software Engineering	Core	3	SC2302 (co-requisite)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
			17	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC2301	Algorithm Design & Analysis	T-Core	3	SC1303
SC2302	Object Oriented Design & Programming	T-Core	3	SC1303
SC5404	Master Class 4	BDE	3	Nil
SC5915	URECA (Part 2)	BDE	4	(Continue from Semester 1)
SC3021	Data Science Fundamentals	Core	3	SC1303
MH3500	Statistics	Core	4	MH2500
MH3511	Data Analysis with Computer	Core	3	MH2500
CC0007	Science & Technology for Humanity	C-Core	3	Nil
CSL	CSL(Service Learning Course)- Part 1	CSL	-	(Continue in Year 3 Semester 1)
			26	
Year 2 Total AU			43	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC3301	Neural Networks and Deep Learning	T-Core	3	SC2300
SC4301	Fundamentals of Generative AI	T-Core	3	SC1315
MPE	Major Prescribed Electives	T-MPE	3	Year 3 standing
MPE	Major Prescribed Electives	T-MPE	3	Year 3 standing
BDE	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
CSL	CSL (Service Learning Course)- Part 2	CSL	3	(Continue from Year 2 Semester 2)
			18	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SD3920	Professional Internship	Professional Series	10	Year 3 Standing
			10	

Year 3 Total AU

28

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Capstone Project (Part 1)	Core	-	Year 4 Standing(Continue in Semester 2)
SC4405	Master Class 5	T-MPE	3	Nil
MPE	Major Prescribed Electives	T-MPE	3	Year 3 standing
MPE	Major Prescribed Electives	BDE	3	Year 3 standing
MH2100	Calculus III	Core	2	MH1805
ML0015	Profession Preparation	Professional Series	1	Nil
			12	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Capstone Project (Part 2)	Core	8	Year 4 Standing(Continue from Semester 1)
SC4326	Computer Vision	T-Core	3	SC3301
SC4327	NLP for LLM	T-Core	3	SC4301
SC4406	Master Class 6	T-MPE	3	Nil
			17	

Year 4 Total AU

29