

AY2024 25

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
				C-Core	F-Core		
1	3	20	0	9	2	4	38
2	13	13	0	8	0	10	44
3	0	6	6	0	10	3	25
4	10	6	12	0	0	0	28
Total	26	45	18	17	12	17	135

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
SC2301	Algorithm Design & Analysis	T-Core	3	SC1303
SC2302	Object Oriented Design & Programming	T-Core	3	SC1303
SC1302	Ethics Seminar (CC0003 equivalent)	C-Core	3	Nil
CC0005	Healthy Living & Wellbeing	C-Core	3	Nil
SC2207	Introduction to Databases	Core	3	SC2301 (co-requisite)
HW0218	Communication Across the Sciences	F-Core	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
MH2500	Probability and Introduction to Statistics	T-Core	4	MH1805
MH2802	Linear Algebra for Scientists	T-Core	3	Nil
CC0007	Science & Technology for Humanity	C-Core	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
			18	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC2300	Machine Learning	T-Core	3	SC1315
SC2320	Data Analytics and Mining	T-Core	3	SC1315
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
SC5403	Master Class 3	BDE	3	Nil
			26	

Year 2 Total AU

44

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
			15	

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

Year 3 Total AU **25**

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	T-MPE	3	Year 3 standing
MH2100	Calculus III	Core	2	MH1805
			11	

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 **28**