

AY2024-25
Curriculum for Bachelor of Computing (Computer Science)

TAISP

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	Core	T-Core	T-MPE	ICC		BDE	Total AU
				C-Core	F-Core		
1	9	20	0	9	0	4	42
2	9	13	0	8	0	10	40
3	0	6	6	0	10	0	22
4	14	6	12	0	2	0	34
Total	32	45	18	17	12	14	138

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)
SC1005	Digital Logic	Core	3	Nil
			20	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC1315	Artificial Intelligence (Master Class 2)	T-Core	3	SC1303
SC2301	Algorithm Design & Analysis	T-Core	3	SC1303 and MH1812
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
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-requisite)
SC1008	C and C++ Programming	Core	3	SC1303
			21	

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 42

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
SC5403	Master Class 3	BDE	3	Nil
	URECA (Part 1)	BDE	2	(Continue in Semester 2)
SC2006	Software Engineering	Core	3	SC2302 (co-requisite)
SC2005	Operating Systems	Core	3	SC1303 and SC1006
CC0007	Science & Technology for Humanity	C-Core	3	Nil
			21	

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
	URECA (Part 2)	BDE	2	(Continue from Semester 1)
SC2207	Introduction to Databases	Core	3	SC2301 (co-requisite)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
			19	

Year 2 Total AU 40

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
			12	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC3920	Professional Internship	F-Core	10	Year 3 Standing
			10	

Year 3 Total AU 22

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Capstone Project (Part 1)	Core	4	Year 4 Standing
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
SC2203	Automata, Computability and Complexity	Core	3	SC2301 (co-requisite)
HW0288	Engineering Communication	F-Core	2	CC0001 & Year 3 standing
			18	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Capstone Project (Part 2)	Core	4	Year 4 Standing
SC4326	Computer Vision	T-Core	3	SC3301
SC4327	NLP for LLM	T-Core	3	SC4301
SC4406	Master Class 6	T-MPE	3	Nil
SC2008	Computer Network	Core	3	SC2000 & SC1004
			16	

Year 4 Total AU 34