

AY2025-2026
Curriculum for Bachelor of Computing (Computer Science) WITH USP

SUMMARY OF ACADEMIC UNIT REQUIREMENT									
Year of Study	Core	MPE	USP Requirements		ICC			BDE	Total AU
			USP Core	USP PE	Common-Core	Professional Series	Care, Serve, Learn		
1	25	0	11	0	2	3	0	0	41
2	18	6	0	3	3	0	3	0	33
3	4	6	0	6	0	10	0	3	29
4	8	15	0	3	0	1	0	8	35
Total	55	27	11	12	5	14	3	11	138

Recommended Course Schedule

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	PS	3	Nil
SC1004	Linear Algebra for Computing	Core	4	SC1003 (co-requisite)
SC1005	Digital Logic	Core	3	Nil
MH1812	Discrete Mathematics	Core	3	Nil
SP0001	Writing & Reasoning	USP Core	3	
SP0008	Living Well	USP Core	2	
HW0002	Calculus	-	-	For student not done Calculus
			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-requisite)
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1008	C and C++ Programming	Core	3	SC1003
SC2000	Probability & Statistics for Computing	Core	3	Nil
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	Nil
SP0002	Ethics	USP Core	3	
SP0007	Fieldwork & Documentation: Topics In Sustainability	USP Core	3	
			23	

Year 1 Total AU

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YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2203	Automata, Computability and Complexity	Core	3	SC2001 (co-requisite)
SC2006	Software Engineering	Core	3	SC2002 (co-requisite)
SC2008	Computer Network	Core	3	SC2000 & SC1004
CC0007	Science & Technology for Humanity	CC	3	Nil
	CSL (service learning course)- Part 1	CSL	-	Nil
			18	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC2207	Introduction to Databases	Core	3	SC2001 (co-requisite)
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
	CSL (service learning course)- Part 2	CSL	3	Nil
	USP Prescribed Elective	USP PE	3	
			15	

Year 2 Total AU

33

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC3099	Capstone Project	Core	4	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	USP Prescribed Elective	USP PE	3	
	USP Prescribed Elective	USP PE	3	Refer to Class Schedule
			19	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC3920	Professional Internship (Graded)	PS	10	Year 3 Standing
			10	

Year 3 Total AU

29

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
	USP Prescribed Elective	USP PE	3	Refer to Class Schedule
ML0015	Profession Preparation	PS	1	Nil
			17	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 2)	Core	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	4	Refer to Class Schedule
			17	

Year 4 Total AU

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MPE Structure of Computer Science (U24 and after)			
Course Code	Type	AU	Remarks
SC3xxx/SC4xxx	MPE-1	3	Any MPE
SC3xxx/SC4xxx	MPE-2	4	Any MPE
SC3xxx/SC4xxx	MPE-3	5	Any MPE
SC3xxx/SC4xxx	MPE-4	6	Any MPE
SC3xxx/SC4xxx	MPE-5	7	Any MPE
SC4xxx	MPE-6	8	MPE (Choose within SC4xxx)
SC4xxx	MPE-7	9	MPE (Choose within SC4xxx)
SC4xxx	MPE-8	10	MPE (Choose within SC4xxx)
SC4xxx	MPE-9	11	MPE (Choose within SC4xxx)
	Total	27	
Please refer the CSC MPE Courses and Specialization on CCDS website.			