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

SUMMARY OF ACADEMIC UNIT REQUIREMENT						
Year of Study	Core	MPE	ICC		BDE	Total AU
			Common - Core	Foundational - Core		
1	25	0	9	3	0	37
2	18	6	8	0	3	35
3	4	6	0	12	6	28
4	0	23/24	0	0	12	35/36
Total	47	35/36	17	15	21	135/136

Recommended Course Schedule

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	F-Core	3	Nil
SC1004	Linear Algebra for Computing	Core	4	SC1003 (co-req)
SC1005	Digital Logic	Core	3	Nil
MH1812	Discrete Mathematics	Core	3	Nil
CC0003	Ethics & Civics in a Multicultural World	C-Core	2	Nil
CC0005	Healthy Living & Wellbeing	C-Core	3	Nil
HW0001	Introduction to Academic Communication	-	-	For student failed QET
HW0002	Calculus	-	-	For student not done Calculus
TOTAL			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-req)
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
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
CC0002	Navigating the Digital World	C-Core	2	Nil
TOTAL			19	

Year 1 Total AU   **37**

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-req)
SC2006	Software Engineering	Core	3	SC2002 (co-req)
SC2008	Computer Network	Core	3	SC2000 & SC1004
CC0007	Science & Technology for Humanity	C-Core	3	Nil
TOTAL			18	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC2207	Introduction to Databases	Core	3	SC2001 (co-req)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-1	3	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-2	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
TOTAL			17	

Year 2 Total AU   **35**

YEAR 3 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC3099	Capstone Project	Core	4	Year 3 Standing
HW0288	Engineering Communication	F-Core	2	CC0001 & Year 3 standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-3	3	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-4	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
TOTAL			**18**	

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

Year 3 Total AU   **28**

YEAR 4 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC4079	Final Year Project (Part 1)	MPE	4	Year 4 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-5	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-6	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-7	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
TOTAL			**19**	

YEAR 4 SEMESTER 2				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC4079	Final Year Project (Part 2)	MPE	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-8	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE-9	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
TOTAL			**16**	

Year 4 Total AU   **35**

Note:

1. Students are required to complete **9 Major Prescribed Electives (MPE) courses** (SC3xxx or SC4xxx), including **at least 4 at the SC4xxx level**.
2. Students may choose to complete a **Final Year Project (FYP)** or take **3 additional MPEs** in its place.
3. In order to graduate with **Highest Distinction**, students **must complete a Final Year Project**.

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