AY2022-23
CURRICULUM FOR 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	21	3	8	0	6	38
3	4	9	0	12	3	28
4	8	12	0	0	12	32
Total	58	24	17	15	21	135

Recommended Course Schedule

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	Core	3	Nil
SC1005	Digital Logic	Core	3	Nil
SC1013	Physics For Computing	Core	2	Nil
MH1810	Mathematics I	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 who failed QET
			19	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC1004	Linear Algebra for Computing	Core	3	SC1003 (co-requisite) & MH1810
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-requisite)
SC1007	Data Structures & Algorithms	Core	3	SC1003
EG1001	Engineers in Society	Core	2	Nil
SC1015	Introduction to Data Science & Artificial Intelligence	F-Core	3	SC1003
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
CC0002	Navigating the Digital World	C-Core	2	Nil
			18	

Year 1 Total AU **37**

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2000	Probability & Statistics for Computing	Core	3	MH1810
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
SC2005	Operating Systems	Core	3	SC1006 & SC1007
CC0007	Science & Technology for Humanity	C-Core	3	Nil
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			18	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC2006	Software Engineering	Core	3	SC2002 (co-requisite)
SC2008	Computer Network	Core	3	SC2000 & SC1004
SC2207	Introduction to Databases	Core	3	SC2001 (co-requisite)
SC3000	Artificial Intelligence	MPE-1	3	SC1007 & SC1015 & SC2000
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			20	

Year 2 Total AU **38**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC3010	Computing Security	MPE-1	3	SC2005
SC3xxx	Major Prescribe Elective (Choose within SC3xxx)	MPE-1	3	Year 3 Standing
SC3xxx	Major Prescribe Elective (Choose within SC3xxx)	MPE-1	3	Year 3 Standing
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
HW0288	Engineering Communication	F-Core	2	CC0001 & Year 3 standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			18	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC3079	Professional Internship	F-Core	10	Year 3 Standing
			10	

Year 3 Total AU   **28**

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-2	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-2	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			16	

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-2	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-2	3	Year 3 Standing
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			16	

Year 4 Total AU   **32**

MPE Structure of Computer Science (U21 and after)			
Course Code	Type	AU	Remarks
SC3000	MPE-1	3	MPE (Compulsory)
SC3010	MPE-1	3	MPE (Compulsory)
SC3xxx	MPE-1	3	MPE (Choose within SC3xxx)
SC3xxx	MPE-1	3	MPE (Choose within SC3xxx)
SC4xxx	MPE-2	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-2	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-2	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-2	3	MPE (Choose within SC4xxx)
	Total	24	
Please refer the CSC MPE Courses and Specialization on SCSE websit.			