

AY2022- 23 CURRICULUM FOR COMPUTER SCIENCE (ACCELERATED BACHELOR PROGRAMME)

SUMMARY OF ACADEMIC UNIT REQUIREMENT						
Year of Study	Core	MPE	ICC		BDE	Total AU
			Common-Core	Foundational-Core		
1	25	0	9	3	3	40
2	21	6	8	0	6	41
3	8	9	0	12	6	35
4	4	9	0	0	6	19
Total	58	24	17	15	21	135

Suggested Study Plan

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
SC1003	Introduction to Computational Thinking & Programming	C	3	Nil
SC1005	Digital Logic	C	3	Nil
SC1013	Physics for Computing	C	2	Nil
MH1810	Mathematics I	C	3	Nil
MH1812	Discrete Mathematics	C	3	Nil
CC0003	Ethics & Civics in a Multi-Cultural World	C-Core	2	Nil
CC0005	Healthy Living & Mental Wellbeing	C-Core	3	Nil
HW0001	Introduction to Academic Communication	-	0	For student who failed QET
			19	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
SC1004	Linear Algebra for Computing	C	3	MH1810, SC1003
SC1006	Computer Organisation & Architecture	C	3	SC1005
SC1007	Data Structures & Algorithms	C	3	SC1003
EG1001	Engineers in Society	C	2	Nil
SC1015	Introduction to Data Science & AI	F-Core	3	SC1003
CC0001	Inquiry and Communication in an Interdisciplinary World	C-Core	2	Nil
CC0002	Navigating the Digital World	C-Core	2	Nil
	Broadening & Deepening Elective	BDE	3	
			21	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
SC2000	Probability and Statistics for Computing	C	3	MH1810
SC2001	Algorithm Design and Analysis	C	3	SC1007, MH1812
SC2002	Object Oriented Design and Programming	C	3	SC1003
SC2005	Operating Systems	C	3	SC1006, SC1007
SC2006	Software Engineering	C	3	SC2002 (Co-requisite)
CC0007	Science & Technology for Humanity	C-Core	3	Nil
	Broadening & Deepening Elective	BDE	3	
			21	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
SC2207	Introduction to Database	C	3	SC2001 (Co-requisite)
SC2008	Computer Networks	C	3	SC1004, SC2000
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Entrepreneurial Development for the Future World	C-Core	2	Nil
SC3010	Computer Security	MPE-1	3	SC2005
SC3000	Artificial Intelligence	MPE-1	3	SC1007, SC1015, SC2000
	Broadening & Deepening Elective	BDE	3	
			20	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
SC3079	Professional Internship	F-Core	10	Year 3 standing
			10	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
SC4079	Final Year Project	C	4	Year 4 standing
SC2079	Multidisciplinary Design Project	C	4	Year 3 standing
SC30xx	Major Prescribe Elective	MPE-1	3	Year 3 standing
SC30xx	Major Prescribe Elective	MPE-1	3	Year 3 standing
SC4xxx	Major Prescribe Elective	MPE-2	3	Year 3 standing
HW0288	Engineering Communication	F-Core	2	CC0001, Year 3 standing
	Broadening & Deepening Elective	BDE	6	
			25	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
SC4079	Final Year Project (Continue from previous semester)	C	4	Year 4 standing
SC4xxx	Major Prescribe Elective	MPE-2	3	Year 3 standing
SC4xxx	Major Prescribe Elective	MPE-2	3	Year 3 standing
SC4xxx	Major Prescribe Elective	MPE-2	3	Year 3 standing
	Broadening & Deepening Elective	BDE	6	
			19	