AY2021-22 AND LATER COHORTS
CURRICULUM FOR COMPUTER SCIENCE

With a Second Major in Business
Mainstream Track

PI option : 20-WEEK Professional Internship

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Core	MPE	Business	ICC Common - Core	ICC Foundational - Core	BDE	Total AU
1	19	0	6	9	3	0	37
2	24	0	6	8	0	0	38
3	7	6	6	0	12	0	31
4	8	18	12	0	0	0	38
Total	58	24	30	17	15	0	144

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	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
AB1201	Financial Management	Business	3	Nil
			19	

YEAR 1 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC1005	Digital Logic	Core	3	Nil
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1015	Introduction to Data Science & Artificial Intelligence	F-Core	3	SC1003
EG1001	Engineers in Society	Core	2	Nil
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
CC0002	Navigating the Digital World	C-Core	2	Nil
AB1501	Marketing	Business	3	Nil
			18	

Year 1 Total AU **37**

YEAR 2 SEMESTER 1

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)
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
CC0007	Science & Technology for Humanity	C-Core	3	Nil
AD1102	Financial Accounting	Business	3	Nil
			18	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC2000	Probability & Statistics for Computing	Core	3	MH1810
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2006	Software Engineering	Core	3	SC2002 (co-requisite)
SC2207	Introduction to Databases	Core	3	SC2001 (co-requisite)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
AB1601	Organisational Behaviour and Design	Business	3	Nil
			20	

Year 2 Total AU **38**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2008	Computer Network	Core	3	SC2000 & SC1004
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
SC3000	Artificial Intelligence	MPE-1	3	SC1007 & SC1015 & SC2000
SC3010	Computer Security	MPE-1	3	SC2005
HW0288	Engineering Communication	F-Core	2	CC0001 & Year 3 standing
AD2102	Management Accounting	Business	3	AD1102
AB1301	Business Law	Business	3	Nil
			21	

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

<div align="center">Year 3 Total AU   31</div>

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
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
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-2	3	Year 3 Standing
BF2219	Investments	Business	3	AB1201
BE2602	Management Principles, Skills & Competencies	Business	3	AB1601
			19	

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
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-2	3	Year 3 Standing
BM2509	Consumer Insights	Business	3	AB1501
BE1402	Business Operations & Process	Business	3	Nil
			19	

<div align="center">Year 4 Total AU   38</div>

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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 website.			

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2	24	0	6	8	0	0	38
3	7	15	9	0	7	3	40
4	8	9	9	0	0	2	29
Total	58	24	30	17	10	5	144

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	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
AB1201	Financial Management	Business	3	Nil
			19	

YEAR 1 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC1005	Digital Logic	Core	3	Nil
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1015	Introduction to Data Science & Artificial Intelligence	F-Core	3	SC1003
EG1001	Engineers in Society	Core	2	Nil
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
CC0002	Navigating the Digital World	C-Core	2	Nil
AB1501	Marketing	Business	3	Nil
			18	

Year 1 Total AU **37**

YEAR 2 SEMESTER 1

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)
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
CC0007	Science & Technology for Humanity	C-Core	3	Nil
AD1102	Financial Accounting	Business	3	Nil
			18	

YEAR 2 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-requisite
SC2000	Probability & Statistics for Computing	Core	3	MH1810
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2006	Software Engineering	Core	3	SC2002 (co-requisite)
SC2207	Introduction to Databases	Core	3	SC2001 (co-requisite)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
AB1601	Organisational Behaviour and Design	Business	3	Nil
			20	

Year 2 Total AU **38**

YEAR 3 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC2008	Computer Network	Core	3	SC2000 & SC1004
SC3000	Artificial Intelligence	MPE-1	3	SC1007 & SC1015 & SC2000
SC3010	Computer Security	MPE-1	3	SC2005
HW0288	Engineering Communication	F-Core	2	CC0001 & Year 3 standing
AD2102	Management Accounting	Business	3	AD1102
AB1301	Business Law	Business	3	Nil
			17	

YEAR 3 SEMESTER 2				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
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
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE-2	3	Year 3 Standing
BF2219	Investments	Business	3	AB1201
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
			18	

YEAR 3 SPECIAL SEMESTER				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
SC3026	Professional Attachment	F-Core	5	Year 3 Standing
			5	

Year 3 Total AU **40**

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
BE2602	Management Principles, Skills & Competencies	Business	3	AB1601
			13	

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
BM2509	Consumer Insights	Business	3	AB1501
BE1402	Business Operations & Process	Business	3	Nil
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			16	

Year 4 Total AU **29**

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 website.			

Business Course Lising				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
AB1201	Financial Management	Business	3	Nil
AB1501	Marketing	Business	3	Nil
AD1102	Financial Accounting	Business	3	Nil
AB1601	Organisational Behaviour and Design	Business	3	Nil
AD2102	Management Accounting	Business	3	AD1102
AB1301	Business Law	Business	3	Nil
BF2219	Investments	Business	3	AB1201
BE2602	Management Principles, Skills & Competencies	Business	3	AB1601
BM2509	Consumer Insights	Business	3	AB1501
BE1402	Business Operations & Process	Business	3	Nil
Business Course Lising (ITP)				
Course Code	**Course Title**	**Type**	**AU**	**Pre-requisite**
BF2226	Trade Incoterms & Ship Chartering	ITP	3	Nil
BF2227	Commodity Markets	ITP	3	Nil
BF3214	Commodities Trading	ITP	2	Nil
BF2302	International Tax & Trading Law	ITP	2	Nil
BF3226	Strategic Management in Commodity Markets	ITP	2	Nil
BF3212	Trade, Structured & Supply Chain Finance	ITP	2	BF2226
BF3213	Enterprise Risk Management in Commodity Markets	ITP	2	Nil