

**AY2021-22**  
**CURRICULUM FOR B.Eng (Computer Engineering) & B.Business (BA Specialization)**  
**DOUBLE DEGREE PROGRAMME**

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

Year of Study	Core		MPE		ICC		Total AU
	CSC	BUS	CSC	BUS	C-Core	F-Core	
1	16	12	0	0	9	8	45
2	15	15	0	0	8	5	43
3	28	6	0	3	0	0	37
4	11	6	9	6	0	0	32
<b>Total</b>	<b>70</b>	<b>39</b>	<b>9</b>	<b>9</b>	<b>17</b>	<b>13</b>	<b>157</b>

**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
EG1001	Engineers in Society	Core	2	Nil
AB1202	Statistics & Analysis	Core	3	Nil
AB1301	Business Law	Core	3	Nil
CC0003	Ethics & Civics in a Multicultural World	C-Core	2	Nil
CC0005	Healthy Living & Wellbeing	C-Core	3	Nil
			21	

**YEAR 1 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-requisite
SC1005	Digital Logic	Core	3	Nil
MH1812	Discrete Mathematics	Core	3	Nil
SC1015	Introduction to Data Science & Artificial Intelligence	F-Core	3	SC1003
AD1102	Financial Accounting	Core	3	Nil
AB1601	Organisational Behaviour and Design	Core	3	Nil
CC0001	Inquiry & Communication in an Interdisciplinary World	C-Core	2	Nil
CC0002	Navigating the Digital World	C-Core	2	Nil
			19	

**YEAR 1 SPECIAL SEMESTER**

Course Code	Course Title	Type	AU	Pre-requisite
AB1003	Professional Attachment	F-Core	5	ABXXXX
			5	

**Year 1 Total AU 45**

**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)
SC1007	Data Structures & Algorithms	Core	3	SC1003
AB0602	Communication Management Strategies (HW0288)	F-Core	4	CC0001
AB2008	Careers II	F-Core	1	Nil
BC2402	Designing & Developing Database (SC2207)	Core	4	Nil
BC2406	Analytics I: Visual and Predictive Analytics	Core	4	Nil
CC0007	Science & Technology for Humanity	C-Core	3	Nil
			25	

**YEAR 2 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-requisite
SC2001	Algorithm Design & Analysis	Core	3	SC1007 & MH1812
SC2103	Digital Systems Design	Core	3	SC1005
AB1201	Financial Management	Core	3	Nil
BC2407	Analytics II: Advanced Predictive Analytics	Core	4	AB1202, BC2406
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
			18	

**Year 2 Total AU 43**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2000	Probability & Statistics for Computing	Core	3	MH1810
SC2002	Object Oriented Design & Programming	Core	3	SC1003 OR SC1007
SC2005	Operating Systems	Core	3	SC1006 & SC1007
SC2104	Sensors, Interfacing & Digital Control	Core	3	SC1006
SC2107	Microprocessor System Design and Development	Core	3	SC1006
AB1501	Marketing	Core	3	Nil
			18	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC2079	Multidisciplinary Design Project	Core	4	Year 3 Standing
SC2006	Software Engineering	Core	3	SC2002 (co-requisite)
SC2008	Computer Network	Core	3	SC2000 & SC1004
SC3103	Embedded Programming	Core	3	SC2107
AD2102	Management Accounting	Core	3	AD1102
BXxxxx	BA/CS Integration 1	BC-PE1	3	-
			19	

**Year 3 Total AU 37**

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
SC3102	Signals, Systems and Transforms	Core	3	SC1004
AB3602	Strategic Management	Core	3	AB1501, AB1601
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
BXxxxx	BA/CS Integration 2	BC-PE2	3	-
			16	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 2)	Core	4	Year 4 Standing
HE5091	Principles of Economics	Core	3	Nil
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
BXxxxx	BA/CS Integration 3	BC-PE3	3	-
			16	

**Year 4 Total AU 32**

MPE Structure of Computer Engineering (U21 and after)			
Course Code	Type	AU	Remarks
SC3xxx/SC4xxx	MPE	3	Choose within SC3xxx & SC4xxx
SC3xxx/SC4xxx	MPE	3	Choose within SC3xxx & SC4xxx
SC3xxx/SC4xxx	MPE	3	Choose within SC3xxx & SC4xxx
SC3xxx/SC4xxx	MPE	3	Choose within SC3xxx & SC4xxx
	<b>Total</b>	<b>12</b>	

Please refer the CE MPE Courses and Elective Focus Areas on SCSE website.

Business Course Lising				
Course Code	Course Title	Type	AU	Pre-requisite
AB1202	Statistics & Analysis	Core	3	Nil
AB1301	Business Law	Core	3	Nil
AD1102	Financial Accounting	Core	3	Nil
AB1601	Organisational Behaviour and Design	Core	3	Nil
AB1003	Professional Attachment	F-Core	5	ABXXXX
AB0602	Communication Management Strategies (HW0288)	F-Core	4	CC0001
AB2008	Careers II	F-Core	1	Nil
BC2402	Designing & Developing Database (SC2207)	Core	4	Nil
BC2406	Analytics I: Visual and Predictive Analytics	Core	4	Nil
AB1201	Financial Management	Core	3	Nil
BC2407	Analytics II: Advanced Predictive Analytics	Core	4	AB1202, BC2406
AB1501	Marketing	Core	3	Nil
AD2102	Management Accounting	Core	3	AD1102
AB3602	Strategic Management	Core	3	AB1501, AB1601
HE5091	Principles of Economics	Core	3	Nil
BXxxxx	BA/CS Integration 1	BC-PE1	3	-
BXxxxx	BA/CS Integration 2	BC-PE2	3	-
BXxxxx	BA/CS Integration 3	BC-PE3	3	-