

**AY2024-25 AND LATER COHORTS**  
**Curriculum for Bachelor of Computing (Computer Science)**

With a Second Major in Business  
 International Trading Programme (ITP) track

PI option : 20-WEEK Professional Internship

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

Year of Study	Core	MPE	Business	ICC		BDE	Total AU
				Common - Core	Foundational - Core		
1	19	0	6	9	3	0	37
2	21	0	11	8	0	0	40
3	6	6	6	0	12	0	30
4	9	21	8	0	0	0	38
<b>Total</b>	<b>55</b>	<b>27</b>	<b>31</b>	<b>17</b>	<b>15</b>	<b>0</b>	<b>145</b>

**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-requisite)
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
HW0002	Calculus	-	-	For student not done Calculus
AB1201	Financial Management	Business	3	Nil
			18	

**YEAR 1 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-requisite
SC1005	Digital Logic	Core	3	Nil
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-requisite)
SC1007	Data Structures & Algorithms	Core	3	SC1003
SC1008	C and C++ Programming	Core	3	SC1003
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
			19	

**Year 1 Total AU 37**

**YEAR 2 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-requisite
SC2000	Probability & Statistics for Computing	Core	3	Nil
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
AD1102	Financial Accounting	Business	3	Nil
BF2227	Commodity Markets	ITP	3	Nil
			21	

**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)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
BE1402	Business Operations & Process	Business	3	Nil
BF3214	Commodities Trading	ITP	2	Nil
			19	

**Year 2 Total AU 40**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2203	Automata, Computability and Complexity	Core	3	SC2001 (co-requisite)
SC2079	Multidisciplinary Design 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	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
AD2102	Management Accounting	Business	3	AD1102
BF2226	Trade Incoterms & Ship Chartering	ITP	3	Nil
			21	

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

**Year 3 Total AU 31**

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 1)	Core	4	Year 4 Standing
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
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
BF2302	International Tax & Trading Law	ITP	2	Nil
BF3226	Strategic Management in Commodity Markets	ITP	2	Nil
			20	

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	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
BF3212	Trade, Structured & Supply Chain Finance	ITP	2	BF2226
BF3213	Enterprise Risk Management in Commodity Markets	ITP	2	Nil
			17	

**Year 4 Total AU 37**

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)
	<b>Total</b>	<b>27</b>	

Please refer the CSC MPE Courses and Specialization on CCDS website.

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**PA option : 10-WEEK Professional Attache**

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

Year of Study	Core	MPE	Business	ICC		BDE	Total AU
				Common - Core	Foundational - Core		
1	19	0	6	9	3	0	37
2	21	0	11	8	0	0	40
3	6	18	6	0	7	3	40
4	9	9	8	0	0	2	28
<b>Total</b>	<b>55</b>	<b>27</b>	<b>31</b>	<b>17</b>	<b>10</b>	<b>5</b>	<b>145</b>

**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-requisite)
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
HW0002	Calculus	-	-	For student not done Calculus
AB1201	Financial Management	Business	3	Nil
			18	

**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
SC1006	Computer Organisation & Architecture	Core	3	SC1005 (co-requisite)
SC1008	C and C++ Programming	Core	3	SC1003
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**      **36**

**YEAR 2 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-requisite
SC2000	Probability & Statistics for Computing	Core	3	Nil
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
BF2227	Commodity Markets	ITP	3	Nil
			15	

**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
SC2005	Operating Systems	Core	3	SC1006 & SC1007
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
ML0004	Career & Innovative Enterprise for the Future World	C-Core	2	Nil
BE1402	Business Operations & Process	Business	3	Nil
BF3214	Commodities Trading	ITP	2	Nil
			19	

**Year 2 Total AU**      **34**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2203	Automata, Computability and Complexity	Core	3	SC2001 (co-requisite)
SC2079	Multidisciplinary Design 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	Year 3 Standing
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
AD2102	Management Accounting	Business	3	AD1102
			18	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
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
SC3xxx/SC4xxx	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
BF2226	Trade Incoterms & Ship Chartering	ITP	3	Nil
	Broadening and Deepening Elective	BDE	3	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                    41**

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	3	Year 3 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
BF2302	International Tax & Trading Law	ITP	2	Nil
BF3226	Strategic Management in Commodity Markets	ITP	2	Nil
			14	

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	3	Year 3 Standing
BF3212	Trade, Structured & Supply Chain Finance	ITP	2	BF2226
BF3213	Enterprise Risk Management in Commodity Markets	ITP	2	Nil
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
			13	

**Year 4 Total AU                    27**

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)
	<b>Total</b>	<b>27</b>	

Please refer the CSC MPE Courses and Specialization on CCDS website.

<b>Business Course Lising</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>Type</b>	<b>AU</b>	<b>Pre-requisite</b>
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
<b>Business Course Lising (ITP)</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>Type</b>	<b>AU</b>	<b>Pre-requisite</b>
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