AY2025 2026 AND LATER COHORTS
Curriculum for Bachelor of Computing (Computer Science)
With a Second Major in Sustainability

PI option : 20-WEEK Professional Internship

SUMMARY OF ACADEMIC UNIT REQUIREMENT

Year of Study	Major		Sustainability	ICC			BDE	Total AU
	Core	MPE		Common - Core	Professional Series	Care, Serve & Learn		
1	19	0	6	8	3	0	0	36
2	21	0	6	6	0	3	0	36
3	7	6	6	0	12	0	0	31
4	0	29	12	0	1	0	0	42
Total	47	35	30	14	16	3	0	145

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	Professional Series	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
CC0015	Health & Wellbeing	C-Core	2	Nil
HW0001	Introduction to Academic Communication	-	-	For student failed QET
HW0002	Calculus	-	-	For student not done Calculus
	Sustainability - Core	Sustainability	3	Refer to syllabus
			17	

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
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
	Sustainability - Core	Sustainability	3	Refer to syllabus
			19	

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
CC0007	Science & Technology for Humanity	C-Core	3	Nil
	Sustainability - Core	Sustainability	3	Refer to syllabus
CSL	CSL (service learning course)- Part 1	CSL	-	(Continue in Semester 2)
			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)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
	Sustainability - Core	Sustainability	3	Refer to syllabus
CSL	CSL (service learning course)- Part 2	CSL	3	(Continue from Semester 1)
			18	

Year 2 Total AU **36**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2203	Automata. Computability and Complexity	Core	3	SC2001 (co-requisite)
SC3099	Capstone	Core	4	Year 3 Standing
HW0288	Engineering Communication	Professional Series	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
	Sustainability - Core	Sustainability	3	Refer to syllabus
	Sustainability - Elective	Sustainability	3	Refer to syllabus
			21	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC3920	Professional Internship (Graded)	Professional Series	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)	MPE	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
	Sustainability - Elective	Sustainability	3	Refer to syllabus
ML0015	Profession Preparation	Professional Series	1	Nil
			20	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 2)	MPE	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
	Sustainability - Elective	Sustainability	3	Refer to syllabus
	Sustainability - Elective	Sustainability	3	Refer to syllabus
	Sustainability - Interdisciplinary Project	Sustainability	3	Refer to syllabus
			22	

Year 4 Total AU — **42**

Note:

1. Students are required to complete **9 Major Prescribed Electives** (SC3xxx or SC4xxx), including **at least 4 at the SC4xxx level**.

2. Students may choose to complete a **Final Year Project (FYP)** or take **3 additional MPEs** in its place.

3. In order to graduate with **Highest Distinction**, students must complete a **Final Year Project**.

MPE Structure of Computer Science (U24 and after)			
Course Code	Type	AU	Remarks
SC3000	MPE-1	3	MPE (Compulsory)
SC3010	MPE-2	3	MPE (Compulsory)
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)
	Total	27	
Please refer to the CSC MPE Courses and Specialization on CCDS website.			

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Year of Study	Major			ICC			BDE	Total AU
	Core	MPE	Sustainability	Common - Core	Professional Series	Care, Serve & Learn		
1	19	0	6	6	3	0	0	36
2	21	0	3	8	0	3	0	33
3	7	18	12	0	7	0	0	44
4	0	17	9	0	1	0	5	32
Total	47	35	30	14	11	3	5	145

Recommended Course Schedule

YEAR 1 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-requisite
SC1003	Introduction to Computational Thinking & Programming	Professional Series	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
CC0015	Health & Wellbeing	C-Core	2	Nil
HW0001	Introduction to Academic Communication	-	-	For student failed QET
HW0002	Calculus	-	-	For student not done Calculus
	Sustainability - Core	Sustainability	3	Refer to syllabus
			17	

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
	Sustainability - Core	Sustainability	3	Refer to syllabus
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	C-Core	2	Nil
			19	

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
CC0007	Science & Technology for Humanity	C-Core	3	Nil
	Sustainability - Core	Sustainability	3	Refer to syllabus
CSL	CSL (service learning course)- Part 1	CSL	-	(Continue in Semester 2)
			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)
CC0006	Sustainability: Society, Economy & Environment	C-Core	3	Nil
CSL	CSL (service learning course)- Part 2	CSL	3	(Continue from Semester 1)
			15	

Year 2 Total AU   **33**

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC2203	Automata. Computability and Complexity	Core	3	SC2001 (co-requisite)
SC3099	Capstone	Core	4	Year 3 Standing
HW0288	Engineering Communication	Professional Series	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
	Sustainability - Core	Sustainability	3	Refer to syllabus
	Sustainability - Core	Sustainability	3	Refer to syllabus
			21	

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
	Sustainability - Elective	Sustainability	0	Refer to syllabus
	Sustainability - Elective	Sustainability	0	Refer to syllabus
			12	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-requisite
SC3026	Professional Attachment	Professional Series	5	Year 3 Standing
			5	
	Year 3 Total AU		**38**	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 1)	MPE	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
	Sustainability - Elective	Sustainability	3	Refer to syllabus
	Broadening and Deepening Elective	BDE	2	Refer to Class Schedule
ML0015	Profession Preparation	Professional Series	1	Nil
			16	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-requisite
SC4079	Final Year Project (Part 2)	MPE	4	Year 4 Standing
SC4xxx	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
	Sustainability - Elective	Sustainability	3	3
	Sustainability - Interdisciplinary Project	Sustainability	3	3
	Broadening and Deepening Elective	BDE	3	Refer to Class Schedule
			16	
	Year 4 Total AU		**32**	

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SC3000	MPE-1	3	MPE (Complusory)
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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)
Total		**27**	
Please refer to the CSC MPE Courses and Specialization on CCDS website.			

Sustainability Course Listing				
Course Code	Course Title	Type	AU	Pre-requisite
	Sustainability - Core	BDE	3	Refer to syllabus
	Sustainability - Elective	BDE	3	Refer to syllabus
	Sustainability - Interdisciplinary Project	BDE	3	Refer to syllabus
Please refer to the Second Major in Sustainability website for Sustainability Course Listing: https://www.ntu.edu.sg/ase/admissions/undergraduate-programmes/second-major-in-sustainability#Content_C013_Col00				