

**CURRICULUM FOR BACHELOR OF ENGINEERING (INFORMATION ENGINEERING & MEDIA)
WITH CN YANG SCHOLARS PROGRAMME
SECOND MAJOR IN SUSTAINABILITY (IESN)
(FIRST YEAR ADMISSION)
AY2025 Intake Onwards**

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Major Requirements			Interdisciplinary Collaborative Core			BDE	Total AU
	School Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn		
1	11 [2]	27 [3]	0	2	3	0	0	43 [5]
2	14	6	0	8	0	3	10	41
3	24	0	6	0	6	0	9	45
4	8	0	12	0	0	0	10	30
Total	57 [2]	33 [3]	18	10	9	3	29	159 [5]

[] AU of courses that could be used to fulfil Core requirement and second major requirement concurrently.

YEAR 1 SEMESTER 1					
Course Code	Course Title		Type	AU	Pre-Requisite/Remarks
CY1001	Cell		CNY-Core	3	CNYSP Courses
CY1101	Molecule		CNY-Core	4	
CY1308	Physics		CNY-Core	3	
CY1500	Introduction to Research		CNY-Core	2	
CY1601	Mathematics I		CNY-Core	4	
EG1001^	Engineers in Society		C	2	
IE1005	From Computational Thinking to Programming		C	3	
				21	

YEAR 1 SEMESTER 2					
Course Code	Course Title		Type	AU	Pre-Requisite/Remarks
CY1007^	Climate Change		CNY-Core	3	Double-counted as Planet Core
CY1602	Mathematics II		CNY-Core	4	CNYSP Course
IM1002	Analog Electronics		C	3	
IM1003	Object-Oriented Programming		C	3	
CC0015	Health & Wellbeing		CC	2	
IE0005	Introduction to Data Science & Artificial Intelligence		PS	3	
				18	

YEAR 1 SPECIAL SEMESTER					
Course Code	Course Title		Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3		CNY-Core	4	CNYSP Course
	Overseas Learning Trip				
				4	

YEAR 2 SEMESTER 1					
Course Code	Course Title		Type	AU	Pre-Requisite/Remarks
CY0001	Writing Across the Disciplines		CNY-Core	3	CNYSP Course
IE5915	Undergraduate Research		BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
DA1000	Thinking and Communicating Visually I		C	3	
IE2104	Digital Electronics		C	3	
CC0006	Sustainability: Society, Economy & Environment		CC	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A. World		CC	2	
	Tech-For-Good (T4G)		CSL	3	Replaces Care, Serve, Learn
	Second Major Compulsory Course 3		BDE	3	Please see attached list of courses to
				20	

YEAR 2 SEMESTER 2					
Course Code	Course Title		Type	AU	Pre-Requisite/Remarks
CY0002	Ethics		CNY-Core	3	CNYSP Course
IE5915	Undergraduate Research		BDE	4	2-semester long, course registered only in Sem 2
IE2106	Engineering Mathematics I		C	3	CY1602
IE2108	Data Structure and Algorithm in Python		C	3	
IM2073	Introduction to Design & Project		C	2	

SP0061	Science & Technology for Humanity	CC	3	
	Second Major Compulsory Course 4	BDE	3	Please see attached list of courses to choose from
			21	

YEAR 3 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
DA2002	Thinking and Communicating Visually II	C	3	
IE2110	Signals and Systems	C	3	
IE3017	Computer Communications	C	3	
IE4758	Information Security	C	3	
	Profession Preparation	PS	1	
	Second Major Compulsory Course 5	BDE	3	Please see attached list of courses to choose from
	SN Elective 1	BDE	3	Please see attached list of electives to
			19	

YEAR 3 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
DA3000	Thinking and Communicating Visually III	C	3	DA1000
IE3012	Communication Principles	C	3	
IE4001	Software Engineering	C	3	
IM3180	Design & Innovation Project	C	3	
	Third-Year Technical Elective	MPE	3	
	Final Year Major Prescribed Elective 1	MPE	3	
	SN Elective 2	BDE	3	Please see attached list of electives to
			21	

YEAR 3 SPECIAL SEMESTER

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
IM3910	Professional Attachment	PS	5	
			5	

YEAR 4 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
IM4081	CNYSP Overseas Final Year Project	C	8	CNYSP Course
			8	

YEAR 4 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
	Final Year Major Prescribed Elective 2	MPE	3	
	Final Year Major Prescribed Elective 3	MPE	3	
	Final Year Major Prescribed Elective 4	MPE	3	
	Final Year Major Prescribed Elective 5	MPE	3	
	SN Elective 3	BDE	3	Please see attached list of electives to choose from
	SN Elective 4	BDE	4	
	Second Major Interdisciplinary Project	BDE	3	
			22	
	Total AU for Graduation:		159	

^a These courses are double-counted towards both IEM as well as the Second Major in Sustainability.

Compulsory Courses and Electives for Second Major in Sustainability

https://www.ntu.edu.sg/ase/admissions/undergraduate-programmes/second-major-in-sustainability#Content_C002_Col00