

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	Double-counted as Practice Core
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
			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	CNYSO Overseas Final Year Project	C	8	CNYSO 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	

^ 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
