AY2024-25 AND LATER COHORTS CURRICULUM FOR COMPUTER ENGINEERING
WITH CN YANG SCHOLARS PROGRAMME
SECOND MAJOR IN SUSTAINABILITY (CESN)
(FIRST YEAR ADMISSION)

Last Updated :   15-Jul-24

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	School Core	CNYSP-Core	MPE	CC	FC	BDE	Total AU
1	12	27	0	5	3	0	47
2	23	10	0	8	0	0	41
3	19	0	6	0	5	15	45
4	8	0	6	0	0	10	24
Total	62	37	12	13	8	25	157

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
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	
SC1003	Introduction to Computational Thinking and Programming	FC	3	Nil	Change in course type from Core to FC
CC0005	Healthy Living & Wellbeing	CC	3	Nil
			22	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CY1007^	Climate Change	CNY-Core	3	**Double-counted as Planet Core**
CY1602	Mathematics II	CNY-Core	4	CNYSP Course
SC1005	Digital Logic	C	3	Nil
SC1006	Computer Organisation & Architecture	C	3	**SC1005 (co-req)**
SC1007	Data Structures and Algorithms	C	3	**SC1003**
SC1008	C and C++ Programming	C	3	**SC1003**	New course
CC0002	Navigating the Digital World	CC	2	Nil
			21	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite
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
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYSP Course
SC2000	Probability and Statistics for Computing	C	3	**MH1810**
SC2104	Sensors, Interfacing & Digital Control	C	3	**SC1006**
SC2107	Microprocessor System Design and Development	C	3	**SC1006**
MH1812	Discrete Mathematics	C	3	Nil
SP0061	Science & Technology for Humanity	CC	3	Only for Premier Scholars Programme Students
EG1001^	Engineers in Society	C	2	**Double-counted as Practice Core**
			20	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CY0002	Ethics	CNY-Core	3	CNYSP Course
CY2001	Research Attachment 1	CNY-Core	4	CNYSP Course 2-semester long, course registered only in Sem 2 (similar to URECA)
SC2001	Algorithm Design and Analysis	C	3	**SC1007, MH1812**
SC2002	Object Oriented Design & Programming	C	3	**SC1003**
SC2103	Digital System Design	C	3	**SC1005**
CC0006	Sustainability: Society, Economy & Environment	CC	3	Nil
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	Nil
			21	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
SC2079	Multidisciplinary Design Project	C	4	Year 3 Standing
SCXXXX	Major PE 1	MPE	3	
SCXXXX	Major PE 2	MPE	3	
	Second Major Compulsory Course 3	BDE	3	
	Second Major Compulsory Course 4	BDE	3	
	Second Major Compulsory Course 5	BDE	3	
			19	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
SC2005	Operating Systems	C	3	**SC1006, SC1007**

SC2006	Software Engineering	C	3	**SC2002**
SC2008	Computer Networks	C	3	**CY1602, SC2000**
SC3102	Signal, Systems and Transform	C	3	**CY1602**
SC3103	Embedded Programming	C	3	**SC2107**
	SN Elective 1	BDE	3	Please see attached list of electives
	SN Elective 2	BDE	3	to choose from
			21	

YEAR 3 SPECIAL SEMESTER				
Course Code	**Course Title**	**Type**	**AU**	**Pre-Requisite**
SC3910	Professional Attachment	FC	5	Year 3 Standing
			5	

YEAR 4 SEMESTER 1				
Course Code	**Course Title**	**Type**	**AU**	**Pre-Requisite**
SC4211	CNYSP Overseas Final Year Project	C	8	CNYSP Course
			8	

YEAR 4 SEMESTER 2				
Course Code	**Course Title**	**Type**	**AU**	**Pre-Requisite**
SCXXXX	Major PE 3	MPE	3	
SCXXXX	Major PE 4	MPE	3	
	SN Elective 3	BDE	3	Please see attached list of electives
	SN Elective 4	BDE	4	to choose from
	Second Major Interdisciplinary Project	BDE	3	
			16	
		Total AU for Graduation:	**157**	

^ *These courses are double-counted towards both CE 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