

CURRICULUM (AY2025-26 Onwards)
ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH SECOND MAJOR IN SUSTAINABILITY
(ECOLOGY)
CN YANG SCHOLARS PROGRAMME

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn	BDE	Total AU
1	12	27 [3]	0	7	0	0	0	46 [3]
2	23 [3]	6	0	3	0	3	7	42 [3]
3	10	0	0	0	4	0	21	35
4	12	0	0	0	10	0	0	22
Total	57 [3]	33 [3]	0	10	14	3	28	145 [6]

[] 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	Remarks
CY1001	Cell	CNYSP-Core	3	
CY1101	Molecule	CNYSP-Core	4	
CY1308	Physics	CNYSP-Core	3	
CY1500	Introduction to Research	CNYSP-Core	2	
CY1601	Mathematics I	CNYSP-Core	4	
ES1001	E2S2 Environment and Society	C	4	
			20	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007^	Climate Change	CNYSP-Core	3	Double-counted as Planet Core
CY1602	Mathematics II	CNYSP-Core	4	
ES1003	E2S2 Solid Earth	C	4	
ES2003	E2S2 Biosphere	C	4	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
CC0015	Health & Wellbeing	CC	2	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			22	

YEAR 1 SPECIAL TERM				
Course Code	Course Title	Type	AU	Remarks
CY2003	Research Attachment 3 (Making and Tinkering)	CNYSP-Core	4	
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY0001	Writing Across The Disciplines	CNYSP-Core	3	
ES5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
ES1006	Introductory Field Experience	C	4	Y1ST complete, Y2S1 register
ES2001	Computational Earth Systems Science	C	4	
ES2802	GIS and the Earth System	C	3	
	Tech-For-Good	CSL	3	Replaces Care, Serve and Learn
SP0061	Science & Technology for Humanity	CC	3	
			20	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY0002	Ethics	CNYSP-Core	3	
ES5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2
ES0001	Physical Environments of Singapore	C	3	
ES2301	Principles of Heredity and Ecological Genetics	C	3	

ES2303^	Introduction to Ecology	C	3	Double-counted as SN Elective
ES4907	Introductory Statistics and Numerical Thinking	C	3	
ES2203	Global Environmental Politics & Governance	BDE	3	SN Elective
			22	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES3307	Experimental Design & Analysis	C	4	
MLxxx	Profession Preparation	PS	1	
ES3202	Resilient Urban System	BDE	3	SN Elective
	Second Major Compulsory Course 2	BDE	3	List of courses to choose from
	Second Major Compulsory Course 3	BDE	3	
	SN Elective 4	BDE	3	List of electives to choose from
			17	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES3301	Plant and Animal Physiology	C	3	
ES3302	Tropical Ecology	C	3	
ES0002	Fundamentals of Data Science for Earth and Environmental Systems Science	PS	3	
	Second Major Compulsory Course 4	BDE	3	List of courses to choose from
	Second Major Compulsory Course 5	BDE	3	
ES5100	Sustainability Capstone Project	BDE	3	
			18	

YEAR 3 SPECIAL SEMESTER & YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES4111	Overseas Final Year Project	C	12	
			12	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES4003	Professional Internship	PS	10	
			10	
Total AUs required for Graduation:			145	

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

CURRICULUM (AY2025-26 Onwards)
ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH SECOND MAJOR IN SUSTAINABILITY
(GEOSCIENCES)
CN YANG SCHOLARS PROGRAMME

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn	BDE	Total AU
1	12	27 [3]	0	7	0	0	0	46 [3]
2	20	6	0	3	0	3	10	42
3	9	0	0	0	4	0	21	34
4	17	0	0	0	10	0	0	27
Total	58	33 [3]	0	10	14	3	31	149 [3]

[] 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	Remarks
CY1001	Cell	CNYSP-Core	3	
CY1101	Molecule	CNYSP-Core	4	
CY1308	Physics	CNYSP-Core	3	
CY1500	Introduction to Research	CNYSP-Core	2	
CY1601	Mathematics I	CNYSP-Core	4	
ES1001	E2S2 Environment and Society	C	4	
			20	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007^	Climate Change	CNYSP-Core	3	Double-counted as Planet Core
CY1602	Mathematics II	CNYSP-Core	4	
ES1003	E2S2 Solid Earth	C	4	
ES2003	E2S2 Biosphere	C	4	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
CC0015	Health & Wellbeing	CC	2	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			22	

YEAR 1 SPECIAL TERM				
Course Code	Course Title	Type	AU	Remarks
CY2003	Research Attachment 3 (Making and Tinkering)	CNYSP-Core	4	
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY0001	Writing Across The Disciplines	CNYSP-Core	3	
ES5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
ES1006	Introductory Field Experience	C	4	
ES2001	Computational Earth Systems Science	C	4	Y1ST complete, Y2S1 register
ES2802	GIS and the Earth System	C	3	
	Tech-For-Good	CSL	3	Replaces Care, Serve and Learn
SP0061	Science & Technology for Humanity	CC	3	
			20	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY0002	Ethics	CNYSP-Core	3	
ES5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2
ES0001	Physical Environments of Singapore	C	3	
ES2002	Earth Materials	C	3	

ES2004	Sedimentary Geology	C	3	
ES2303	Introduction to Ecology	BDE	3	SN Elective
ES2203	Global Environmental Politics & Governance	BDE	3	SN Elective
			22	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES3003	Introduction to Geochemistry	C	3	
MLxxx	Profession Preparation	PS	1	
ES3202	Resilient Urban System	BDE	3	SN Elective
	Second Major Compulsory Course 2	BDE	3	List of courses to choose from
	Second Major Compulsory Course 3	BDE	3	
	SN Elective 4	BDE	3	List of electives to choose from
			16	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES3002	Structural Geology and Tectonics	C	3	
ES3004	Introduction to Geophysics	C	3	
ES0002	Fundamentals of Data Science for Earth and Environmental Systems Science	PS	3	
	Second Major Compulsory Course 4	BDE	3	List of courses to choose from
	Second Major Compulsory Course 5	BDE	3	
ES5100	Sustainability Capstone Project	BDE	3	
			18	

YEAR 3 SPECIAL SEMESTER & YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES3005	Advanced Field Course in Geology	C	5	
ES4111	Overseas Final Year Project	C	12	
			17	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES4003	Professional Internship	PS	10	
			10	
Total AUs required for Graduation:			149	

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

CURRICULUM (AY2025-26 Onwards)
ENVIRONMENTAL EARTH SYSTEMS SCIENCE WITH SECOND MAJOR IN SUSTAINABILITY
(SOCIETY AND THE EARTH SYSTEM)
CN YANG SCHOLARS PROGRAMME

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn	BDE	Total AU
1	12	27 [3]	0	7	0	0	0	46 [3]
2	23 [9]	6	0	3	0	3	4	39 [9]
3	9	0	0	0	4	0	15	28
4	12	0	0	0	10	0	0	22
Total	56 [9]	33 [3]	0	10	14	3	19	135 [12]

[] 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	Remarks
CY1001	Cell	CNYSP-Core	3	
CY1101	Molecule	CNYSP-Core	4	
CY1308	Physics	CNYSP-Core	3	
CY1500	Introduction to Research	CNYSP-Core	2	
CY1601	Mathematics I	CNYSP-Core	4	
ES1001	E2S2 Environment and Society	C	4	
			20	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007^	Climate Change	CNYSP-Core	3	Double-counted as Planet Core
CY1602	Mathematics II	CNYSP-Core	4	
ES1003	E2S2 Solid Earth	C	4	
ES2003	E2S2 Biosphere	C	4	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
CC0015	Health & Wellbeing	CC	2	
ML0004	Career Design & Workplace Readiness in the V.U.C.A	CC	2	
			22	

YEAR 1 SPECIAL TERM				
Course Code	Course Title	Type	AU	Remarks
CY2003	Research Attachment 3 (Making and Tinkering)	CNYSP-Core	4	
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY0001	Writing Across The Disciplines	CNYSP-Core	3	
ES5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
ES1006	Introductory Field Experience	C	4	Y1ST complete, Y2S1 register
ES2001	Computational Earth Systems Science	C	4	
ES2802	GIS and the Earth System	C	3	
	Tech-For-Good	CSL	3	Replaces Care, Serve and Learn
SP0061	Science & Technology for Humanity	CC	3	
			20	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY0002	Ethics	CNYSP-Core	3	
ES5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2
ES0001	Physical Environments of Singapore	C	3	
ES4907	Introductory Statistics and Numerical Thinking	C	3	

ES2203^	Global Environmental Politics and Governance	C	3	Can be double-counted as SN Elective
ES2303^	Introduction to Ecology	C	3	Can be double-counted as SN Elective
			19	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
HE5091^	Principles of Economics	C	3	Double-counted as Profit Core
ES3202^	Resilient Urban System	C	3	Can be double-counted as SN Elective
MLxxxx	Profession Preparation	PS	1	
	Second Major Compulsory Course 3	BDE	3	List of courses to choose from
	Second Major Compulsory Course 4	BDE	3	
	SN Elective 4	BDE	3	List of electives to choose from
			16	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES3201	Coupled Human and Natural Systems	C	3	
ES0002	Fundamentals of Data Science for Earth and Environmental	PS	3	
	Second Major Compulsory Course 5	BDE	3	List of courses to choose from
ES5100	Sustainability Capstone Project	BDE	3	
			12	

YEAR 3 SPECIAL SEMESTER & YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES4111	Overseas Final Year Project	C	12	
			12	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES4003	Professional Internship	PS	10	
			10	
Total AUs required for Graduation:			135	

^ These courses can be double-counted (max 12AU) towards both EESS as well as the Second Major in Sustainability.