

CURRICULUM FOR BACHELOR OF SCIENCE (ENVIRONMENTAL EARTH SYSTEMS SCIENCE)
ECOLOGY
CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)
AY2026 Intake Onwards

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn	BDE	Total AU
1	12	27	0	6	0	0	0	45
2	23	6	0	4	0	3	4	40
3	10	0	0	0	4	0	13	27
4	12	0	0	0	10	0	0	22
Total	57	37	0	10	14	3	13	134

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY1001	The Systems Architecture of Life	CNY-Core	3	
CY1101	Molecule	CNYSP-Core	4	
CY1308	Physics	CNYSP-Core	3	
CY1601	Mathematics I	CNYSP-Core	4	
ES1001	E2S2 Environment and Society	C	4	
			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007	Climate Change	CNYSP-Core	3	
CY1602	Mathematics II	CNYSP-Core	4	
CY1500	Introduction to Research	CNYSP-Core	2	
ES1003	E2S2 Solid Earth	C	4	
ES2003	E2S2 Biosphere	C	4	
NH0007	Critical Perspectives on Technology and Society	CC	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
			23	

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	Language & Logic	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	MH1802
ES2802	GIS and the Earth System	C	3	ES1003 & ES2001 (Co-req) □
NH0001	Tech-For-Good Service Learning	CSL	3	Replaces Care, Serve and Learn
CC0015	Healthy Living & Wellbeing	CC	2	
			19	

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	The Physical Environments of Singapore	C	3	
ES2301	Principles of Heredity & Ecological Genetics	C	3	
ES2303	Introduction to Ecology	C	3	
ES4907	Introductory Statistics and Numerical Thinking	C	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			21	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES3307	Experimental Design & Analysis	C	4	
MLxxxx	Profession Preparation	PS	1	
XXXXXX	Broadening and Deepening Elective 1	BDE	3	
XXXXXX	Broadening and Deepening Elective 2	BDE	3	
XXXXXX	Broadening and Deepening Elective 3	BDE	4	
			15	

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	
XXXXXX	Broadening and Deepening Elective 4	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:			134	

CURRICULUM FOR BACHELOR OF SCIENCE (ENVIRONMENTAL EARTH SYSTEMS SCIENCE)
GEOSCIENCES
CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)
AY2026 Intake Onwards

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn	BDE	Total AU
1	12	27	0	6	0	0	0	45
2	20	6	0	4	0	3	4	37
3	9	0	0	0	4	0	12	25
4	17	0	0	0	10	0	0	27
Total	58	33	0	10	14	3	16	134

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY1001	The Systems Architecture of Life	CNY-Core	3	
CY1101	Molecule	CNYSP-Core	4	
CY1308	Physics	CNYSP-Core	3	
CY1601	Mathematics I	CNYSP-Core	4	
ES1001	E2S2 Environment and Society	C	4	
			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007	Climate Change	CNYSP-Core	3	
CY1602	Mathematics II	CNYSP-Core	4	
CY1500	Introduction to Research	CNYSP-Core	2	
ES1003	E2S2 Solid Earth	C	4	
ES2003	E2S2 Biosphere	C	4	
NH0007	Critical Perspectives on Technology and Society	CC	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
			23	

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	Language & Logic	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	
NH0001	Tech-For-Good Service Learning	CSL	3	Replaces Care, Serve and Learn
CC0015	Healthy Living & Wellbeing	CC	2	
			19	

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	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			18	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES3003	Introduction to Geochemistry	C	3	
MLxxxx	Profession Preparation	PS	1	
XXXXXX	Broadening and Deepening Electives 1	BDE	3	
XXXXXX	Broadening and Deepening Electives 2	BDE	3	
XXXXXX	Broadening and Deepening Electives 3	BDE	3	
			13	

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	
XXXXXX	Broadening and Deepening Elective 4	BDE	3	
			12	

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	CNYSP Course
			17	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES4003	Professional Internship	PS	10	
			10	
Total AUs required for Graduation:			134	

CURRICULUM FOR BACHELOR OF SCIENCE (ENVIRONMENTAL EARTH SYSTEMS SCIENCE)
SOCIETY AND THE EARTH SYSTEM
CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)
AY2026 Intake Onwards

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn	BDE	Total AU
1	12	27	0	6	0	0	0	45
2	23	6	0	4	0	3	4	40
3	9	0	0	0	4	0	14	27
4	12	0	0	0	10	0	0	22
Total	56	33	0	10	14	3	18	134

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY1001	The Systems Architecture of Life	CNY-Core	3	
CY1101	Molecule	CNYSP-Core	4	
CY1308	Physics	CNYSP-Core	3	
CY1601	Mathematics I	CNYSP-Core	4	
ES1001	E2S2 Environment and Society	C	4	
			18	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007	Climate Change	CNYSP-Core	3	
CY1500	Introduction to Research	CNYSP-Core	2	
CY1602	Mathematics II	CNYSP-Core	4	
ES1003	E2S2 Solid Earth	C	4	
ES2003	E2S2 Biosphere	C	4	
NH0007	Critical Perspectives on Technology and Society	CC	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
			23	

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	Language & Logic	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	
NH0001	Tech-For-Good Service Learning	CSL	3	Replaces Care, Serve and Learn
CC0015	Healthy Living & Wellbeing	CC	2	
			19	

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	
ES2203	Global Environmental Politics and Governance	C	3	
ES2303	Introduction to Ecology	C	3	
ES4907	Introductory Statistics and Numerical Thinking	C	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			21	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
ES3202	Resilient Urban Systems	C	3	
HE5091	Principles of Economics	C	3	
MLxxxx	Profession Preparation	PS	1	
XXXXXX	Broadening and Deepening Electives 1	BDE	3	
XXXXXX	Broadening and Deepening Electives 2	BDE	3	
XXXXXX	Broadening and Deepening Electives 3	BDE	2	
			15	

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 Systems Science	PS	3	
XXXXXX	Broadening and Deepening Electives 4	BDE	3	
XXXXXX	Broadening and Deepening Electives 5	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	CNYSP Course
			12	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
ES4003	Professional Internship	PS	10	
			10	
Total AUs required for Graduation:			134	