

**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
<b>Total</b>	<b>57 [3]</b>	<b>33 [3]</b>	<b>0</b>	<b>10</b>	<b>14</b>	<b>3</b>	<b>28</b>	<b>145 [6]</b>

[ ] 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	
			<b>20</b>	

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	
			<b>22</b>	

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

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	
			<b>20</b>	

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 <sup>^</sup>	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	
MLxxxx	Profession Preparation	PS	1	
ES3202	Resilient Urban System	BDE	3	SN Elective
	Second Major Compulsory Course 2	BDE	3	<a href="#">List of courses to choose from</a>
	Second Major Compulsory Course 3	BDE	3	
	SN Elective 4	BDE	3	<a href="#">List of electives to choose from</a>
			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	<a href="#">List of courses to choose from</a>
	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	

<sup>^</sup> 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
<b>Total</b>	<b>58</b>	<b>33 [3]</b>	<b>0</b>	<b>10</b>	<b>14</b>	<b>3</b>	<b>31</b>	<b>149 [3]</b>

[ ] 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	
				<b>20</b>	

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	
				<b>22</b>	

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

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	
				<b>20</b>	

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	<b>SN Elective</b>
ES2203	Global Environmental Politics & Governance	BDE	3	<b>SN Elective</b>
			<b>22</b>	

#### YEAR 3 SEMESTER 1

Course Code	Course Title	Type	AU	Remarks
ES3003	Introduction to Geochemistry	C	3	
MLxxxx	Profession Preparation	PS	1	
ES3202	Resilient Urban System	BDE	3	<b>SN Elective</b>
	Second Major Compulsory Course 2	BDE	3	<a href="#">List of courses to choose from</a>
	Second Major Compulsory Course 3	BDE	3	
	SN Elective 4	BDE	3	<a href="#">List of electives to choose from</a>
			<b>16</b>	

#### 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	<a href="#">List of courses to choose from</a>
	Second Major Compulsory Course 5	BDE	3	
ES5100	Sustainability Capstone Project	BDE	3	
			<b>18</b>	

#### 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	
			<b>17</b>	

#### YEAR 4 SEMESTER 2

Course Code	Course Title	Type	AU	Remarks
ES4003	Professional Internship	PS	10	
			<b>10</b>	
<b>Total AUs required for Graduation:</b>			<b>149</b>	

<sup>^</sup> 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**  
**(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
<b>Total</b>	<b>56 [9]</b>	<b>33 [3]</b>	<b>0</b>	<b>10</b>	<b>14</b>	<b>3</b>	<b>19</b>	<b>135 [12]</b>

[ ] 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	
			<b>20</b>	

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	
			<b>22</b>	

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

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	
			<b>20</b>	

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	<a href="#">List of courses to choose from</a>
	Second Major Compulsory Course 4	BDE	3	<a href="#">List of courses to choose from</a>
	SN Elective 4	BDE	3	<a href="#">List of electives to choose from</a>
			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	<a href="#">List of courses to choose from</a>
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	

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