

**Curriculum for CN Yang Scholars Programme
Environmental Earth Systems Science
Society and the Earth System
(For AY2020-21 intake)**

Course Type	AU
Core (Society and the Earth System)	94
GER-Core	17
Unrestricted Electives (Society and the Earth System)	27
Total	138

	Course Code	Course Title	Type	AU
Year 1 Semester 1	CY1001	Introductory Biology	Core	3
	CY1101	Principles of Modern Chemistry	Core	3
	CY1308	Physics	Core	3
	CY1500	Introductory Research Methodology	Core	3
	CY1601	Mathematics I	Core	4
	ES1001	E2S2 Environment and Society	Core	4
				Total AUs

	Course Code	Course Title	Type	AU
Year 1 Semester 2	CY1007	Climate Change	Core	4
	CY1307	Relativity and Quantum Physics	Core	3
	CY1400	CNYSP Undergraduate Research Experience	Core	3
	CY1602	Mathematics II	Core	4
	ES1003	E2S2 Solid Earth	Core	4
	ES2003	E2S2 Biosphere	Core	3
	GC0001	Sustainability: Seeing Through the Haze	GER-Core	1
				Total AUs

	Course Code	Course Title	Type	AU
Year 1 Special Term	ES1006	Introductory Field Experience	Core	4
	CY2003	Research Attachment 3 (Making & Tinkering)	Core	4
	NA	Overseas Educational Trip	NA	NA
				Total AUs

	Course Code	Course Title	Type	AU
Year 2 Semester 1	CY2001	Research Attachment 1	Core	4
	CY0002	Ethics	GER-Core	3
	ES2001	Computational Earth Systems Science	Core	4
	ES2802	GIS and the Earth System	Core	3
	HE9091	Principles of Economics	Core	3
				Total AUs

	Course Code	Course Title	Type	AU
Year 2 Semester 2	CY0001	Writing Across the Disciplines	GER-Core	3
	ES2303	Introduction to Ecology	Core	3
	ES2201	Law & Economics, Sustainable Development and Environmental Protection	Core	3
	ES2202	Global Environmental Politics and Governance	Core	4
	ES0001	The Physical Environments of Singapore	GER-Core	3
	ML0003	Kickstart your Career Success	GER-Core	1
				Total AUs

Year 3 Semester 1	Course Code	Course Title	Type	AU
	ES3001	Futures in Environmental Earth Systems Science	Core	1
	MH2500	Probability and Introduction to Statistics	Core	4
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	CY0006	Enterprise, Innovation and Leadership	GER-Core	3
			Total AUs	17

Year 3 Semester 2	Course Code	Course Title	Type	AU
	ES3201	Coupled Human and Natural Systems	Core	4
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	ES0002	Fundamentals of Data Science for Earth and Environmental Systems Science	GER-Core	3
			Total AUs	16

Year 3 Special Term and Year 4 Semester 1	Course Code	Course Title	Type	AU
	ES4111	Overseas Final Year Project	Core	12
			Total AUs	12

Year 4 Semester 2	Course Code	Course Title	Type	AU	
	xxxxxx	Unrestricted Elective / Second Major	UE	3	
	xxxxxx	Unrestricted Elective / Second Major	UE	3	
	xxxxxx	Unrestricted Elective / Second Major	UE	3	
			Total AUs	9	
				GRAND TOTAL	138

Table A: School Core (25 AUs)

School Core (25 AUs)	Type	AU
ES1001 E2S2 Environment and Society	Core	4
ES1003 E2S2 Solid Earth	Core	4
ES1006 Introductory Field Experience	Core	4
ES2001 Computational Earth Systems Science	Core	4
ES2003 E2S2 Biosphere	Core	4
ES3001 Futures in Environmental Earth Systems Science	Core	1
TOTAL		21

Table B: School Additional Major Core

Society and the Earth System (24 AUs)	Type	AU
Introduction to Ecology	Core	3
ES2201 Law & Economics, Sustainable Development and Environmental Protection	Core	3
ES2202 Global Environmental Politics and Governance	Core	4
ES3201 Coupled Human and Natural Systems	Core	4
ES2802 GIS and the Earth System	Core	3
HE9091 Principles of Economics	Core	3
MH2500 Probability and Introduction to Statistics	Core	4
TOTAL		24

**Curriculum for CN Yang Scholars Programme
Environmental Earth Systems Science
Ecology and Ecosystems
(For AY2020-21 intake)**

Course Type	AU
Core (Ecology and Ecosystems)	95
GER-Core	17
Unrestricted Electives (Ecology and Ecosystems)	26
Total	138

Year 1 Semester 1	Course Code	Course Title	Type	AU
	CY1001	Introductory Biology	Core	3
	CY1101	Principles of Modern Chemistry	Core	3
	CY1308	Physics	Core	3
	CY1500	Introductory Research Methodology	Core	3
	CY1601	Mathematics I	Core	4
	ES1001	E2S2 Environment and Society	Core	4
				Total AUs

Year 1 Semester 2	Course Code	Course Title	Type	AU
	CY1007	Climate Change	Core	3
	CY1307	Relativity and Quantum Physics	Core	3
	CY1400	CNYSP Undergraduate Research Experience	Core	3
	CY1602	Mathematics II	Core	4
	ES1003	E2S2 Solid Earth	Core	4
	ES2003	E2S2 Biosphere	Core	4
	GC0001	Sustainability: Seeing Through the Haze	GER-Core	1
			Total AUs	22

Year 1 Special Term	Course Code	Course Title	Type	AU
	ES1006	Introductory Field Experience	Core	4
	CY2003	Research Attachment 3 (Making & Tinkering)	Core	4
	NA	Overseas Educational Trip	NA	NA
			Total AUs	8

Year 2 Semester 1	Course Code	Course Title	Type	AU
	CY2001	Research Attachment 1	Core	4
	CY0002	Ethics	GER-Core	3
	ES2001	Computational Earth Systems Science	Core	4
	ES2802	GIS and the Earth System	Core	3
	BS1008	Bioinformatics and Statistics	Core	3
			Total AUs	17

Year 2 Semester 2	Course Code	Course Title	Type	AU
	CY0001	Writing Across the Disciplines	GER-Core	3
	ES2301	Principles of Heredity and Ecological Genetics	Core	4
	ES2303	Introduction to Ecology	Core	3
	ES0001	The Physical Environments of Singapore	GER-Core	3
	ML0003	Kickstart your Career Success	GER-Core	1
	xxxxxx	Unrestricted Elective / Second Major	UE	3
			Total AUs	17

Year 2 Special Term	Course Code	Course Title	Type	AU
	ES2302	Introduction to Field Ecology	Core	2
			Total AUs	2

Year 3 Semester 1	Course Code	Course Title	Type	AU
	ES3001	Futures in Environmental Earth Systems Science	Core	1
	ES2304	Microbes on Natural Ecosystems	Core	3
	xxxxxx	Unrestricted Elective/ Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	CY0006	Enterprise, Innovation and Leadership	GER-Core	3
			Total AUs	16

Year 3 Semester 2	Course Code	Course Title	Type	AU
	ES3301	Plant and Animal Physiology	Core	4
	Xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	ES0002	Fundamentals of Data Science for Earth and Environmental Systems Science	GER-Core	3
			Total AUs	16

Year 4 Semester 1	Course Code	Course Title	Type	AU
	ES4301	Conservation Biology and Biodiversity	Core	3
	ES4111	Overseas Final Year Project	Core	12
			Total AUs	15

Year 4 Semester 2	Course Code	Course Title	Type	AU
	xxxxxx	Unrestricted Elective / Second Major	UE	2
	xxxxxx	Unrestricted Elective / Second Major	UE	3
			Total AUs	5
			GRAND TOTAL	138

Table A: School Core (25 AUs)

School Core (25 AUs)	Type	AU
ES1001 E2S2 Environment and Society	Core	4
ES1003 E2S2 Solid Earth	Core	4
ES1006 Introductory Field Experience	Core	4
ES2001 Computational Earth Systems Science	Core	4
ES2003 E2S2 Biosphere	Core	4
ES3001 Futures in Environmental Earth Systems Science	Core	1
TOTAL		21

Table B: School Additional Major Core

Ecology & Ecosystems (25 AUs)	Type	AU
ES2303 Introduction to Ecology	Core	3
BS1008 Bioinformatics and Statistics	Core	3
ES2304 Microbes on Natural Ecosystems	Core	3
ES2301 Principles of Heredity and Ecological Genetics	Core	4
ES2302 Introduction to Field Ecology	Core	2
ES2802 GIS and the Earth System	Core	3
ES3301 Plant and Animal Physiology	Core	4
ES4301 Conservation Biology and Biodiversity	Core	3
TOTAL		25

**Curriculum for CN Yang Scholars Programme
Environmental Earth Systems Science
Geosciences
(For AY2020-21 intake)**

Course Type	AU
Core (Geosciences)	100
GER-Core	17
Unrestricted Electives (Geosciences)	21
Total	138

	Course Code	Course Title	Type	AU
Year 1 Semester 1	CY1001	Introductory Biology	Core	3
	CY1101	Principles of Modern Chemistry	Core	3
	CY1308	Physics	Core	3
	CY1500	Introductory Research Methodology	Core	3
	CY1601	Mathematics I	Core	4
	ES1001	E2S2 Environment and Society	Core	4
				Total AUs

	Course Code	Course Title	Type	AU
Year 1 Semester 2	CY1007	Climate Change	Core	3
	CY1307	Relativity and Quantum Physics	Core	3
	CY1400	CNYS Undergraduate Research Experience	Core	3
	CY1602	Mathematics II	Core	4
	ES1003	E2S2 Solid Earth	Core	4
	ES2003	E2S2 Biosphere	Core	4
	GC0001	Sustainability: Seeing Through the Haze	GER-Core	1
			Total AUs	22

	Course Code	Course Title	Type	AU
Year 1 Special Term	ES1006	Introductory Field Experience	Core	4
	CY2003	Research Attachment 3 (Making & Tinkering)	Core	4
	NA	Overseas Educational Trip	NA	NA
				Total AUs

	Course Code	Course Title	Type	AU
Year 2 Semester 1	CY2001	Research Attachment 1	Core	4
	CY0002	Ethics	GER-Core	3
	ES2001	Computational Earth Systems Science	Core	4
	ES2802	GIS and the Earth System	Core	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
			Total AUs	17

	Course Code	Course Title	Type	AU
Year 2 Semester 2	CY0001	Writing Across the Disciplines	GER-Core	3
	ES2002	Earth Materials	Core	4
	ES2004	Layers and Landforms (pending name and AU change)	Core	4
	ES0001	The Physical Environments of Singapore	GER-Core	3
	ML0003	Kickstart your Career Success	GER-Core	1
	xxxxxx	Unrestricted Elective / Second Major	UE	3
			Total AUs	18

Year 2 Special Term	Course Code	Course Title	Type	AU
	ES2101	Introduction to Geological Field Mapping	Core	2
			Total AUs	2

Year 3 Semester 1	Course Code	Course Title	Type	AU
	ES3001	Futures in Environmental Earth Systems Science	Core	1
	ES3003	Introduction to Geochemistry	Core	4
	xxxxxx	Unrestricted Elective/ Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	CY0006	Enterprise, Innovation and Leadership	GER-Core	3
			Total AUs	17

Year 3 Semester 2	Course Code	Course Title	Type	AU
	ES3002	Structural Geology and Tectonics	Core	4
	ES3004	Introduction to Geophysics	Core	4
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	ES0002	Fundamentals of Data Science for Earth and Environmental Systems Science	GER-Core	3
			Total AUs	14

Year 3 Special Term and Year 4 Semester 1	Course Code	Course Title	Type	AU
	ES3005	Advanced Field Course in Geology	Core	5
	ES4111	Overseas Final Year Project	Core	12
			Total AUs	17

Year 4 Semester 2	Course Code	Course Title	Type	AU
	xxxxxx	Unrestricted Elective / Second Major	UE	3
			Total AUs	3
			GRAND TOTAL	138

Table A: School Core (25 AUs)

School Core (25 AUs)	Type	AU
ES1001 E2S2 Environment and Society	Core	4
ES1003 E2S2 Solid Earth	Core	4
ES1006 Introductory Field Experience	Core	4
ES2001 Computational Earth Systems Science	Core	4
ES2003 E2S2 Biosphere	Core	4
ES3001 Futures in Environmental Earth Systems Science	Core	1
TOTAL		21

Table B: School Additional Major Core

Geosciences (30 AUs)	Type	AU
ES2002 Earth Materials	Core	4
ES2004 Layers and Landforms (pending name and AU change)	Core	4
ES2101 Introduction to Geological Field Mapping	Core	2
ES2802 GIS and the Earth System	Core	3
ES3002 Structural Geology and Tectonics	Core	4

ES3003 Introduction to Geochemistry	Core	4
ES3004 Introduction to Geophysics	Core	4
ES3005 Advanced Field Course in Geology	Core	5
TOTAL		30