Curriculum for students admitted in AY2021 onwards – ESPP

Curriculum for AY21 - ESPP

EESS CORE		
Course Code	**Course Title**	**Aus**
ES0001	The Physical Environments of Singapore	3
ES0138	Introduction to Scientific Writing	2
ES1001	E2S2 Environment and Society	4
ES1003	E2S2 Solid Earth	4
ES1006	Introductory Field Experience	4
ES1007	Climate Change	3
ES2001	Computational Earth Systems Science	4
ES2003	E2S2 Biosphere	4
ES2203	Global Environmental Politics and Governance	3
ES2303	Introduction to Ecology	3
ES2802	GIS and the Earth System	3
ES3201	Coupled Human and Natural Systems	3
ES3202	Resilient Urban Systems	3
MH1802	Calculus for the Sciences	4
MH3511	Data Analysis with Computer	3
PPGA CORE		
HA1001	Introduction to International Relations and Foreign Policy	3
HA1002	Introduction to Political Theory	3
HA1003	Introduction to Public Administration and Policy	3
HA1011	Politics of Singapore	3
HA1012	Fundamentals of Politics	3
MAJOR PE		
BS1001	Introductory Biology	3
BS1005	Biochemistry I	3
BS1008	Bioinformatics and Statistics	3
BS2002	Microbiology	3
CM1001	Foundations of Chemistry I	4
CM1002	Foundations of Chemistry II	4
CM2011	Analytical and Bioanalytical Chemistry	3
EM5101	Environmental Quality	3
EM5106	Environmental Impact Assessment	3
ES2002	Earth Materials	3
ES2004	Sedimentary Geology	3
ES2005	Geology of Earthquakes	3
ES2201	Law & Economics, Sustainable Development, and Environmental Protection	3
ES2301	Principles of Heredity and Ecological Genetics	3

ES2302	Introduction to Field Ecology	2
ES2304	Microbes on Natural Ecosystems	3
ES2801	Introduction to Natural Hazards	3
ES3002	Structural Geology and Tectonics	3
ES3003	Introduction to Geochemistry	3
ES3004	Introduction to Geophysics	3
ES3005	Advanced Field Course in Geology	5
ES3006	Space Geodesy	3
ES3008	E2S2 Research	3
ES3101	Petroleum Geology	3
ES3102	Global Tectonics	3
ES3103	Sea-level Rise & Coastal Processes	2
ES3301	Plant and Animal Physiology	3
ES3302	Tropical Ecology	3
ES3304	Advanced Placement in Ecology and Society	2
ES3305	Current Issues in Ecology	3
ES3306	Global Change Ecology	3
ES3307	Experimental Design & Analysis for Ecology	3
ES3801	Biogeochemistry	3
ES3802	The Urban Environment: Issues, assessment, and management	3
ES4002	Final Year Project	10
ES4004	Overseas Entrepreneurship Prog (12-month)	20
ES4006	Overseas Entrepreneurship Prog (6-month)	11
ES4010	Teaching in E2S2	4
ES4201	Environmental Management and Valuation	3
ES4301	Conservation Biology and Biodiversity	3
ES4302	Introduction to Earth Environmental Simulations	3
ES4303	Marine and Aquatic Ecology	3
ES4304	Eyes on Earth - Satellite Remote Sensing	3
ES4901	Oceanography	3
ES4902	Geophysical Data Analysis	3
ES4904	Volcanology	3
ES4905	Environmental Science and Policy	3
ES4906	Environmental Hydrology	3
ES4911	Seismology	3
ES5009	The Genome & Society	3
HP1100	Fundamentals of Social Science Research	3
PH1104 or PH1801	Mechanics or Foundations of Physics I	3
PH1106 or PH1802	Electricity and Magnetism or Foundations of Physics II	3
PH1105	Optics, Vibrations and Waves	3
PH1107	Relativity and Quantum Physics	3

PPGA Major Prescribed Electives					
Major Prescribed Electives (11 courses totaling 35 AUs)					
9 modules from the HA2xxx and HA3xxx basket + 2 modules from the HA4xxx basket					
Course Code	Course Title				AUs
Politics and International Relations					
HA2003	Politics and Government in Southeast Asia				3
HA2004	Theories in International Relations				3
HA2005	Contemporary Political Theory				3
HA2015	China in Africa				3
HA2017	Foreign Policy and Analysis				3
HA2026	American Foreign Policy				3
HA3004	United States and East Asia				3
HA3005	Politics of the Developing World				3
HA3014	Singapore's Foreign Policy				3
HA3015	Media and Politics				3
HA3016	China's Foreign Policy				3
HA3018	Borderless Migration				3
HA3019	East Asian Security				3
HA3020	Justice				3
HA3022	The Origins of Modern Political Theory				3
HA3023	International Security				3
HA3024	China's Re-emergence in World Politics				3
HA3025	The Politics and Practice of International Diplomacy				3
HA3027	Comparative Regional Security Institutions: From Asia to Africa				3
HA3029	China & Southeast Asia In The 21st Century				3
HA4001	ASEAN in the 21st Century				4
HA4013	Advanced Topics in Democratic Theory: Democracy & Division				4
HA4014	European Union				4
HA4021	Comparative Politics in Asia				4
HA4022	International Politics of the Asia-Pacific				4
HA4028	Global Perspectives on Politics and Policy				2
HA4029	Quantitative Approach to International Relations				4
HA4030	Interstate Conflict				4
HA4036	Power in International Relations: Order and Transition				4
HA4038	Critical International Theory				4
HA4064	Model United Nations				4
HA4065	Crisis Diplomacy				4
Public Policy and Administration					
HA2009	The Making of E-government				3
HA2011	Cost-benefit Analysis in Public Policy				3
HA2014	Public Organization and Management				3
HA2020	Socio-Political Analysis in Public Policy				3
HA2023	Research Methods in Social Sciences				3

HA2024	Statistical Analysis for Public Affairs 1	3
HA2027	Introduction to Quantitative Social Sciences	3
HA3001	Political Analysis of Public Policy	3
HA3007	Public Budgeting and Financial Management	3
HA3010	Mass Media and Public Policy	3
HA3018	Borderless Migration?	3
HA3026	Crisis Leadership and Management	3
HA3028	Political Parties and Elections	3
HA3030	Innovation Management & Policy	3
HA3032	Urban Politics and Policy-making	3
HA4006	Special Topic in Public Administration	4
HA4011	Public Administration: Past, Present & Future	4
HA4017	Economics Issues for Public Decision Making	4
HA4018	Policy Evaluation	4
HA4025	Designing and Conducting Qualitative Research	4
HA4026	Selected Topics in Health Care and Ageing	4
HA4031	Human Capital Management in the Government	4
HA4032	What is a City?	4
HA4033	Political Theory and Psychoanalysis	4
HA4034	Causal Inference In Policy Evaluation	4
HA4035	Food Politics and Policies	4
HA4039	Knowledge Politics	4
HA4040	Health, Disease Outbreaks & Politics	4
HA4041	Film & Political Theory	4
HA4066	War in Film	4
HU1002	Introduction to Urban Planning	3
HU2002	Urban Life, Design and Policy	3

ICC Common Core			
Course Code	Course Title	AU	Schedule
CC0001	Inquiry and Communication in an Interdisciplinary World	**2**	**Year 1 Sem 1**
CC0003	Ethics & Civics in a Multi-Cultural World	**2**	**Year 1 Sem 1**
CC0002	Navigating the Digital World	**2**	**Year 1 Sem 2**
CC0005	Healthy Living & Mental Wellbeing	**3**	**Year 1 Sem 2**
ML0004	Career & Entrepreneurial Development for the Future World	**2**	**Year 2 Sem 2**
CC0006	Sustainability: Human, Social, Economic & Environment	**3**	**Year 2 Sem 1**
CC0007	Science & Technology for Humanity	**3**	**Year 2 Sem 1**

ICC Foundational Core			
Course Code	Course Title	AU	Schedule
ES0002	Fundamentals of Data Science for Earth and Environmental Earth Systems Science	**3**	**Year 3 Sem 2**
ES0238	Scientific Writing for Non-Scientists	**2**	**Year 3 Sem 2**
ES4007	Professional Attachment	**5**	**Year 3 ST**

No of Academic Units (Aus)						
Year of study	Core	Major PE	ICC-CC	ICC-FC	BDE	Total
1	33		9			42
2	23	12	8			43
3	9	21		5		35
4		20		5	3	28
Total	**65**	**53**	**17**	**10**	**3**	**148**

Proposed Timetable			
Year 1 Semester 1			
Course Code	**Course Title**	**Type**	**AU**
ES0138	Introduction to Scientific Writing	Core	2
ES1001	E2S2 Environment and Society	Core	4
MH1802	Calculus for the Sciences	Core	4
HA1001	Introduction to International Relations and Foreign Policy	Core	3
HA1012	Fundamentals of Politics	Core	3
CC0001	Inquiry and Communication in an Interdisciplinary World	ICC	2
CC0003	Ethics & Civics in a Multi-Cultural World	ICC	2
		Total AUs	**20**
Year 1 Semester 2			
Course Code	**Course Title**	**Type**	**AU**
ES1003	E2S2 Solid Earth	Core	4
ES1007	Climate Change	Core	3
ES2003	E2S2 Biosphere	Core	4
HA1003	Introduction to Public Administration and Policy	Core	3
HA1011	Politics of Singapore	Core	3
CC0002	Navigating the Digital World	ICC	2
CC0005	Healthy Living & Mental Wellbeing	ICC	3
	Total AUs		**22**
Year 2 Semester 1			
Course Code	**Course Title**	**Type**	**AU**
ES1006	Introductory Field Experience	Core	4
ES2001	Computational Earth Systems Science	Core	4
ES2802	GIS and the Earth System	Core	3
HA1002	Introduction to Political Theory	Core	3
CC0006	Sustainability: Human, Social, Economic & Environment	ICC	3
CC0007	Science & Technology for Humanity	ICC	3
XXXX	MAJOR PE	MPE	3
		Total AUs	**23**
Year 2 Semester 2			
Course Code	**Course Title**	**Type**	**AU**
ES0001	The Physical Environments of Singapore	Core	3
ES2303	Introduction to Ecology	Core	3
ES2203	Global Environmental Politics and Governance	Core	3
ML0004	Career & Entrepreneurial Development for the Future World	ICC	2
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
		Total AUs	**20**
Year 3 Semester 1			

Course Code	Course Title	Type	AU
ES3202	Resilient Urban Systems	Core	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
		Total AUs	**18**

Year 3 Semester 2			
Course Code	**Course Title**	**Type**	**AU**
ES3201	Coupled Human and Natural Systems	Core	3
MH3511	Data Analysis with Computer	Core	3
ES0238	Scientific Writing for Non-Scientists	ICC	2
ES0002	Fundamentals of Data Science for Earth and Environmental Systems Science	ICC	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
		Total AUs	**17**

Year 4 Semester 1			
Course Code	**Course Title**	**Type**	**AU**
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	3
		Total AUs	**15**

Year 4 Semester 2			
Course Code	**Course Title**	**Type**	**AU**
ES4007	Professional Attachment	ICC	5
XXXX	MAJOR PE	MPE	3
XXXX	MAJOR PE	MPE	2
XXXX	Broadening Elective	BDE	3
		Total AUs	**13**