## **Graduation Requirements for BES XDP Cohorts AY2021/2022 onwards**

| Requirements (*Refer to Note 1)                |   |   | MCs | Sub<br>Totals | Sub<br>Totals<br>Major |
|--|---|---|-----|---------------|------------------------|
| GE + CHS Modules                               |   |   | 44  | 44            |                        |
| 2000-level Biology Core (Choose 1)             |   | 2000-level Geography Core (Choose 1)  | 8   | 52            | 8                      |
| LSM2251 Ecology & Environment                  | 4 | GE2101 Methods and Practices in Geography   | 4   |               |                        |
| LSM2252 Biodiversity                           | 4 | GE2102 Politics, Economies<br>And Space   | 4   |               |                        |
|  |   | GE2215 Introduction to GIS  | 4   |               |                        |
|  |   | GE2231 Living space:<br>Introducing Social and Cultural<br>Geographies              | 4   |               |                        |
| 3000-level Biology Core (Choose 2)             |   | 3000-level Geography Core (Choose 2)  | 16  | 68            | 24                     |
| LSM3252 Evolution and Comparative Genomics     | 4 | GE3226 Tourism and Development  | 4   |               |                        |
| LSM3254 Ecology of<br>Aquatic Environments     | 4 | GE3231 Natural Hazards  | 4   |               |                        |
| LSM3255 Ecology of<br>Terrestrial Environments | 4 | GE3238: GIS Design and Practices  | 4   |               |                        |
| LSM3256 Tropical<br>Horticulture               | 4 | GE3216 Applications of GIS and Remote Sensing                                       | 4   |               |                        |
| LSM3258 Comparative<br>Botany                  | 4 | XD3103 Planet Earth   | 4   |               |                        |
| LSM3259 Fungal Biology                         | 4 | GE3240 Geographical<br>Research: Developing Ideas<br>(*compulsory if taking GE4401) | 4   |               |                        |
| LSM3265 Entomology                             | 4 | GE3250 Nature and Society   | 4   |               |                        |
| LSM3266 Avian Biology and Evolution            | 4 | GE3251 Southeast Asia   | 4   |               |                        |
| LSM3267 Behavioural<br>Biology                 | 4 | GE3253 Weather and Climate  | 4   |               |                        |
| LSM3272 Global Change<br>Biology               | 4 | GE3254 Energy Futures:<br>Environment and Sustainability                            | 4   |               |                        |
|  |   | GE3255 Aquatic, Riparian and Coastal Systems  | 4   |               |                        |
|  |   | GE3256 Earth Surface<br>Processes, Landforms and<br>Ecosystems                      | 4   |               |                        |
|  |   | GE3259 Applied Geographical<br>Data Science   | 4   |               |                        |

| Requirements (*Refer to N  | ote 1 | )  | MCs | Sub<br>Totals | Sub<br>Totals<br>Major |
|--|-------|--|-----|---------------|------------------------|
| 4000-level Biology Core<br>(Choose 1)  |       | 4000-level Geography Core<br>(Choose 1)<br>*Refer to Note 1    | 8   | 76            | 32                     |
| LSM4251 Plant Growth and Development   | 4     | GE4207 Coastal Management                                      | 4   |               |                        |
| LSM4254 Principles of Taxonomy and Systematics   | 4     | GE4211 Advanced Hydrology<br>and Water Resources<br>Management | 4   |               |                        |
| LSM4255 Methods in<br>Mathematical Biology   | 4     | GE4212 Environmental<br>Modelling                              | 4   |               |                        |
| LSM4256 Evolution of Development   | 4     | GE4214 Remote Sensing of Environment                           | 4   |               |                        |
| LSM4257 Aquatic Vertebrate Diversity   | 4     | GE4218 Interpreting Tourism Space and Cultures                 | 4   |               |                        |
| LSM4259 Evolutionary<br>Genetics of Reproduction   | 4     | GE4219 Development and<br>Environment in Southeast Asia        | 4   |               |                        |
| LSM4260 Plankton<br>Ecology  | 4     | GE4220 Field Investigation in<br>Physical Geography            | 4   |               |                        |
| LSM4261 Marine Biology   | 4     | GE4221 Field Investigation in<br>Human Geography               | 4   |               |                        |
| LSM4262 Tropical<br>Conservation Biology   | 4     | GE4222 Advanced<br>Geomorphology                               | 4   |               |                        |
| LSM4263 Field Studies in Biodiversity  | 4     | GE4224 Applied Biogeography                                    | 4   |               |                        |
| LSM4264 Freshwater<br>Biology  | 4     | GE4227 Climate Change:<br>Processes, Impact and<br>Responses   | 4   |               |                        |
| LSM4266 Aquatic Invertebrate Diversity   | 4     | GE4232 Global and Political Ecologies                          | 4   |               |                        |
| LSM4267 Light & Vision in Animal Communication   | 4     | GE4233 Geography in the Contemporary World                     | 4   |               |                        |
| LSM4268 Environmental<br>Bioacoustics  | 4     | GE4234 Environmental Change in the Tropics                     | 4   |               |                        |
| LSM4351 Vegetation and<br>Plant Diversity of<br>Southeast Asia                                       | 4     | GE4235 Urban Climate   | 4   |               |                        |
|  |       | GE4237 Environmental Pollution                                 | 4   |               |                        |
|  |       | GE4239 Coastal Dynamics  | 4   |               |                        |
|  |       | GE4240 Spatial Decision-<br>Making                             | 4   |               |                        |
|  |       | GE4241 Spatial Health  | 4   |               |                        |
| Common Core Modules (Choose 2 from two different levels)   |       |  | 8   | 84            | 40                     |
| EC2383 Environmental Economics   |       |  | 4   |               |                        |
| ESE2000 Chemistry for an Environmentally Sustainable Future  |       |  | 4   |               |                        |
| HY2235 Environmental History   |       |  | 4   |               |                        |
| LAD2004 Planting Design and Horticulture PH2216 Environmental Philosophy or PH2226 Concept of Nature |       |  | 4   |               |                        |
| in Inquiry RE2701 Urban Planning   |       |  | 4   |               |                        |

| Requirements (*Refer to Note 1)   | MCs | Sub<br>Totals | Sub<br>Totals<br>Major |
|---|-----|---------------|------------------------|
| SC2207 / AN2203 Peoples & Cultures of Southeast Asia  | 4   |               |                        |
| SC2221 / AN2206 Humans and Nature   |     |               |                        |
| One level 2000 or level 3000 YID-coded Environmental Studies                                    |     |               |                        |
| module or YSS3229 Urbanisation and the Environment (max 5 MC                                    | 5   |               |                        |
| can count to Major)   |     |               |                        |
| ESE3101 Solid and Hazardous Waste Management  | 4   |               |                        |
| ESE3201 Air Quality Management  | 4   |               |                        |
| ESE3301 Environmental Microbiological Principles  | 4   |               |                        |
| LAD3006 Basics of Ecology   | 4   |               |                        |
| PF3504 Energy Management  | 4   |               |                        |
| PS3274 Environmental Politics   | 4   |               |                        |
| RE3901 Advanced Urban Planning  | 4   |               |                        |
| SC3212 Southeast Asia in a Globalizing World  | 4   |               |                        |
|   |     |               |                        |
|   |     |               |                        |
| Common Core Modules (take all or as indicated)  | 16  | 100           | 56                     |
| GE2103 Our Planet: an Earth Systems Science Perspective   | 4   |               |                        |
| LSM3257 Applied Data Analysis in Ecology and Evolution  | 4   |               |                        |
| LSM4288E FYP-or GE4401 HT (refer to Note 2) or Take 2   |     |               |                        |
| additional "4000-level Biology Core" or "4000-level Geography                                   | 8   |               |                        |
| Core" elective modules  |     |               |                        |
| Integrated Modules (take all or as indicated)   | 36  | 132           | 92                     |
| ENV1101 Environmental Studies: An Interdisciplinary Overview (the only 1000-level major module) | 4   |               |                        |
| ENV2302 Communications for Environmental Studies  | 4   |               |                        |
| ENV2301 Methods and Techniques for Environmental Studies  | 4   |               |                        |
| ENV2102 Environmental Law   | 4   |               |                        |
| ENV2103 The Environment and Public Health   | 4   |               |                        |
| ENV3101 Environmental Challenges in Asia or ENV3202A  |     |               |                        |
| Environmental Studies Internship Programme (max 4 MC can  | 4   |               |                        |
| count to Major)   |     |               |                        |
| ENV3104 Socio-Ecological Assessment of Environmental Impacts                                    |     |               |                        |
| or UROP(GE3551)/UROPS(LSM3288)/UROPES(ENV3288) (max   | 4   |               |                        |
| 4 MC can count to Major)  |     |               |                        |
| ENV3102 Field Course in Environmental Studies   | 4   |               |                        |
| ENV4101 Environmental Management in Singapore   | 4   |               |                        |
| Unrestricted Electives  | 24  | 160           |                        |
| Total   |     | 160           |                        |

\*Note 1: Students going on SEP may map their partner university modules to the NUS placeholder modules in the table below to count towards major elective requirements. Do note that only a maximum of one placeholder module can count towards the major elective requirements and the rest will be counted as unrestricted electives.

| Placeholder module | BES Major requirement                                |
|--------------------|--|
| ENV2991 (4 MCs)    | Fulfils any Level 2000 elective in the BES XDP major |
|                    | requirements requirements                            |
| ENV3991 (4 MCs)    | Fulfils any Level 3000 elective in the BES XDP major |
|                    | <mark>requirements</mark>                            |
| ENV4991 (4 MCs)    | Fulfils any Level 4000 elective in the BES XDP majo  |
|                    | requirements   |