

## Tentative Courses List

Bioresources and Environmental Biology International B.Sc. Program

Department of Biology, Faculty of Science, Mahidol University

Nakhon Pathom | Bangkok, THAILAND

### Semester 1 (August – December)

credit (theory – lab/practice – self-study)

#### Required Courses

(#denotes courses that are always offered)

SCBE 111 <sup>#</sup>	Principles of Biology 1	3 (3-0-6)
SCBE 102 <sup>#</sup>	General Biology Laboratory 1	1 (0-3-1)
SCBE 203 <sup>#</sup>	General Genetics	3 (3-0-6)
SCBE 204 <sup>#</sup>	General Genetics Laboratory	1 (0-3-1)
SCBE 205 <sup>#</sup>	General Botany	3 (3-0-6)
SCBE 206 <sup>#</sup>	General Botany Laboratory	1 (0-3-1)
SCBE 220 <sup>#</sup>	Principle of Water Chemistry	3 (3-0-6)
SCBE 221 <sup>#</sup>	Water Chemistry Laboratory	1 (0-3-1)
SCBE 497 <sup>#</sup>	Seminar in Bioresources and Environmental Biology	1 (0-3-1)

#### General Education and Elective Courses

(Courses are offered based on students' interest. Please check with the Program Secretary)

SCSL 194 <sup>#</sup>	Computer Skill for Science Research and Presentation	2 (2-0-4)
SCSL 195 <sup>#</sup>	Complexity and Finesse in Fragrance and Flavor	3 (2-3-5)
SCSL 196 <sup>#</sup>	Sustainable Development of Natural Products	3 (2-3-5)
SCSL 197 <sup>#</sup>	Introductory Gardening	3 (2-3-5)
SCBE 301	Principles of Environmental Science	2 (2-0-4)
SCBE 306 <sup>#</sup>	Marine Biology	4 (3-2-7)
SCBE 311	Principles of Animal Physiology	4 (3-2-7)
SCBE 313	Plant Molecular Genetics	3 (3-0-6)
SCBE 322	Air Quality Monitoring and Management	3 (2-3-5)

SCBE 324	Solid Waste and Sewage	3 (2-3-5)
SCBE 330	Environmental Microbiology	3 (3-0-6)
SCBE 350	Diversity of Plants	3 (2-3-5)
SCBE 370	Invertebrate Zoology	4 (3-2-7)
SCBE 392	Herpetology	4 (3-2-7)
SCBE 414	Conservation Biology: Asia Perspectives	3 (3-0-6)
SCBE 415	Biodiversity Sciences	3 (3-0-6)
SCBE 452	Flora of Thailand	3 (3-0-6)

### Semester 2 (January – May)

credit (theory – lab/practice – self-study)

#### Required courses

(#denotes courses that are always offered)

SCBE 113 <sup>#</sup>	Principles of Biology 2	3 (3-0-6)
SCBE 104 <sup>#</sup>	General Biology Laboratory 2	1 (0-3-1)
SCBE 207 <sup>#</sup>	Basic Cell and Molecular Biology	3 (3-0-6)
SCBE 208 <sup>#</sup>	General Ecology	3 (3-0-6)
SCBE 210 <sup>#</sup>	General Microbiology	3 (2-3-5)
SCBE 211 <sup>#</sup>	Biochemistry for Environmental Biologists	3 (3-0-6)
SCBE 212 <sup>#</sup>	Biochemistry Laboratory for Environmental Biologists	1 (0-3-1)
SCBE 302 <sup>#</sup>	Biostatistics	3 (3-0-6)
SCBE 303 <sup>#</sup>	Evolution	3 (3-0-6)
SCBE 305 <sup>#</sup>	Scientific Research and Presentation	1 (0-3-1)

#### General Education and Elective Courses

(Courses are offered based on students' interest. Please check with the Program Secretary)

SCSL 198 <sup>#</sup>	Global Environment and Sustainability	3 (3-0-6)
SCSL 120 <sup>#</sup>	Ethics for Sustainable Development	3 (3-0-6)
SCSL 191	Science Communication for Life Science	3 (3-0-6)
SCSL 192	Plants and Society	3 (2-2-5)
SCSL 193	Illustration for Natural Science	3 (1-4-4)

SCSL 123	Nature Appreciation	3 (2-3-5)
SCSL 195 <sup>#</sup>	Complexity and Finesse in Fragrance and Flavor	3 (2-3-5)
SCSL 197 <sup>#</sup>	Introductory Gardening	3 (2-3-5)
SCBE 307	Water Pollution Control and Management	3 (2-3-5)
SCBE 316	Biological Microtechnique	3 (2-3-5)
SCBE 318	Environmental Risk Assessment	3 (3-0-6)
SCBE 390	Vertebrate Zoology	4 (3-2-7)
SCBE 401	Hazardous Waste Management	3 (3-0-6)
SCBE 403	Sustainable Technology	3 (3-0-6)
SCBE 404	Water and Wastewater Treatment	3 (3-0-6)
SCBE 411	Molecular Biology Applications	3 (3-0-6)
SCBE 417	Natural Resources and Environmental Management	3 (3-0-6)

### Summer Session (June – July)

credit (theory – lab/practice – self-study)

#### **Required courses**

(<sup>#</sup>denotes courses that are always offered)

SCBE 201 <sup>#</sup>	General Zoology	3 (3-0-6)
SCBE 202 <sup>#</sup>	General Zoology Laboratory	1 (0-3-1)
SCBE 209 <sup>#</sup>	Ecological Monitoring and Assessment of Bioresources	4 (3-1-6)