

## 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)

Course#	Course Description	Credits
SCBE 111#	Principles of Biology 1	3 (3-0-6)
SCBE 102#	General Biology Laboratory 1	1 (0-3-1)
SCBE 203#	General Genetics	3 (3-0-6)
SCBE 204#	General Genetics Laboratory	1 (0-3-1)
SCBE 205#	General Botany	3 (3-0-6)
SCBE 206#	General Botany Laboratory	1 (0-3-1)
SCBE 220#	Principle of Water Chemistry	3 (3-0-6)
SCBE 221#	Water Chemistry Laboratory	1 (0-3-1)
SCBE 497#	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)

Course#	Course Description	Credits
SCSL 194#	Computer Skill for Science Research and Presentation	2 (2-0-4)
SCSL 195#	Complexity and Finesse in Fragrance and Flavor	3 (2-3-5)
SCSL 196#	Sustainable Development of Natural Products	3 (2-3-5)
SCSL 197#	Introductory Gardening	3 (2-3-5)
SCBE 301	Principles of Environmental Science	2 (2-0-4)
SCBE 306#	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)

Course#	Course Description	Credits
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)

Course#	Course Description	Credits
SCBE 113#	Principles of Biology 2	3 (3-0-6)
SCBE 104#	General Biology Laboratory 2	1 (0-3-1)
SCBE 207#	Basic Cell and Molecular Biology	3 (3-0-6)
SCBE 208#	General Ecology	3 (3-0-6)
SCBE 210#	General Microbiology	3 (2-3-5)
SCBE 211#	Biochemistry for Environmental Biologists	3 (3-0-6)
SCBE 212#	Biochemistry Laboratory for Environmental Biologists	1 (0-3-1)
SCBE 302#	Biostatistics	3 (3-0-6)
SCBE 303#	Evolution	3 (3-0-6)
SCBE 305#	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)

Course#	Course Description	Credits
SCSL 198#	Global Environment and Sustainability	3 (3-0-6)
SCSL 120#	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#	Complexity and Finesse in Fragrance and Flavor	3 (2-3-5)
SCSL 197#	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	4 (3-2-7)
SCBE 390	Vertebrate Zoology	3 (3-0-6)
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)

Course#	Course Description	Credits
SCBE 417	Natural Resources and Environmental Management	3 (3-0-6)

**Semester Session (June – July)**

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

**Required Courses**

(#denotes courses that are always offered)

Course#	Course Description	Credits
SCBE 201#	General Zoology	3 (3-0-6)
SCBE 202#	General Zoology Laboratory	1 (0-3-1)
SCBE 209#	Ecological Monitoring and Assessment of Bioresources	4 (3-1-6)