



UNIVERSITY OF THE EAST
Graduate School
Manila

Master of Science in Biology (MS Bio)		
	Core	Units
GBI 7101	Biostatistics	3
GBI 7102	Research Methods in Biology	3
GBI 7103	Advanced Physiology*	3
GBI 7104	Advanced Systematics*	3
GBI 7105	Advanced Ecology*	3
GBI 7106	Advanced Genetics*	3
GBI 7107	Advanced Cell and Molecular Biology*	3
		21
	Elective	
GBI 7108	Advanced Microbiology*	3
GBI 7109	Environmental Microbiology	3
GBI 7200	Industrial Microbiology	3
GBI 7201	Medical Microbiology	3
GBI 7202	Aquatic Ecology*	3
GBI 7203	Immunology	3
GBI 7204	Current Techniques in Biosciences	3
GBI 7205	Bioinformatics	3
GBI 7206	Taxonomy and Morphology of Angiosperms*	3
GBI 7207	Evolution and Phylogeny of Higher Land Plants*	3
GBI 7208	Molecular Phylogenetics*	3
GBI 7209	Phycology*	3
GBI 7300	Ethnobotany	3
GBI 7301	Biogeography	3
GBI 7302	Biodiversity Conservation	3
GBI 7303	Advanced Invertebrate Biology*	3
GBI 7304	Advanced Vertebrate Phylogeny	3
GBI 7305	Advanced Developmental Biology	3
GBI 7306	Mycology*	3
GBI 7401	Special Topics in Biology	3
GBI 7402	Special Problem**	3
		12
GBI 7907	Research Colloquium	1
GRR 7700	Comprehensive Examination	-
GRR 7980	Thesis 1	3
GRR 7990	Thesis 2	3
		7
	Total	40

Approved by the University of the East Board of Trustees on February 18, 2016, initial offering in the First Semester 2016-2017.

*Lecture and laboratory

**Required for Master of Biology

CORE

GBI 7101 Biostatistics

Basic statistics and application of softwares in analyzing data in biology (3 units)

GBI 7102 Research Methods in Biology

Principles in research designs and methods of research in biology (3 units)

GBI 7103 Advanced Physiology (with laboratory)

Concepts of cellular and organismal functions of plants and animals in attaining homeostasis (3 units)

GBI 7104 Advanced Systematics (with laboratory)

Basic principles of systematics encompassing concepts of taxonomy, phylogeny, and evolution (3 units)

GBI 7105 Advanced Ecology (with laboratory)

Principles of ecology as applied at the level of the individual organism, population, community, and the ecosystem (3 units)

GBI 7106 Advanced Genetics (with laboratory)

Principles of transmission genetics, cytogenetics, molecular genetics, and population genetics (3 units)

GBI 7107 Advanced Cell and Molecular Biology (with laboratory)

The cell as the fundamental structural and functional unit of living organism, its physical, biochemical and physiological nature; the anatomical and structural organization of molecules and how they work together as an orchestrated whole. (3 units)

ELECTIVES

GBI 7108 Advanced Microbiology (with laboratory)

Different groups of microorganisms, with emphasis on physiology and genetics covering bacteriology, virology and mycology (3 units)

GBI 7109 Environmental Microbiology

The interaction of microorganism and the environment, their occurrence, abundance and distribution (3 units)

GBI 7200 Industrial Microbiology

Presence and effects of microorganism in the industries ranging from pharmaceutical, chemical, agricultural and food (3 units)

GBI 7201 Medical Microbiology

The microbial pathogens, including bacteria, viruses, fungi, and parasites; their biological characteristics, epidemiology, mechanisms and routes of transmission, pathogenesis and immunity, host response, control, and prevention (3 units)

GBI 7202 Aquatic Ecology (with laboratory)

Dynamics and biodiversity of the lentic and lotic ecosystems (3 units)

GBI 7203 Immunology

Basic cellular and molecular aspects of human immune system, molecular tools and techniques in the study of the immune system (3 units)

GBI 7204 Current Techniques in Biosciences

Principles and techniques in modern biology (3 units)

GBI 7205 Bioinformatics

Procedure in the analyses and manipulation of molecular data and softwares application (3 units)

GBI 7206 Taxonomy and Morphology of Angiosperms (with laboratory)

Classification of angiosperms based on the standards and principles of the ICN and the Angiosperm Phylogeny Group (APG III) (3 units)

GBI 7207 Evolution and Phylogeny of Higher and Land Plants (with laboratory)

Current classification of embryophytes (land plants) based on combined molecular and morphological data (3 units)

GBI 7208 Molecular Phylogenetics (with laboratory)

Modern techniques in understanding the evolutionary event in various living forms and concepts in constructing phylogenetic relationships (3 units)

GBI 7209 Phycology (with laboratory)

The diversity, classification, morphology and evolution of algae (3 units)

GBI 7300 Ethnobotany

Importance of plants to various groups of individuals utilizing the basic concepts and principles of Botany and Statistics (3 units)

GBI 7301 Biogeography

Distribution of plants and animals in a particular habitat and modern techniques used in establishing it (3 units)

GBI 7302 Biodiversity Conservation

Concepts and principles in plant and animal conservation through lectures and fieldwork in various available habitats (3 units)

GBI 7303 Advanced Invertebrate Biology (with laboratory)

Diversity, systematics, morphology and anatomy of various invertebrate species (3 units)

GBI 7304 Advanced Vertebrate Phylogeny

Evolution and systematics of animals with backbone, including evidences of animal adaptation through time (3 units)

GBI 7305 Advanced Developmental Biology

Significant events in various stages of plant and animal development (3 units)

GBI 7306 Mycology (with laboratory)

Systematics, diversity, taxonomy and morphology of fungi and its related groups like oomycetes, dicytostelids and myxomycetes (3 units)

GBI 7401 Special Topics in Biology (3 units)

GBI 7402 Special Problem (3 units)

GBI 7907 Research Colloquium (1 unit)

GRR 7700 Comprehensive Examinations

Prerequisite: Completion of all course work (0 units)

GRR 7980 Thesis 1

Selection and presentation of research topic, writing and oral defense of research proposal (3 units)

GRR 7990 Thesis 2

Conducting, writing and oral defense of master's thesis approved in Thesis 1 (3 units)

* * *