BIOL 3350 Neurobiology (3,3,0)
Prerequisite: BIOL 2210 Animal Physiology
The course studies neurobiology with main emphasis on how neuronal information are integrated in the CNS to control functions such as visual recognition, sleep, memory and movement. The course also studies the autonomic nervous system with emphasis on its control of body functions. Lastly, the relationship between the nervous system and the hormonal system will also be stressed.

BIOL 3380 Environmental Science Laboratory I (2,0,6)
Prerequisite: BIOL 2110 Ecology and Biology Major Year III standing (Environmental Concentration) or Geography Major Year III standing
This course provides students with hands-on experience in the approach and techniques commonly used in environmental research. A local habitat will be selected and students will be trained the sampling and analytical techniques for various environmental matrices including water, soil and biological samples.

BIOL 3390 Environmental Science Laboratory II (2,0,6)
Prerequisite: Biology Major Year III standing (Environmental Concentration)
This laboratory exercise provides students with training in analytical techniques, including physical, chemical and biological techniques, for environmental investigations, and with the skills in management and evaluation of environmental data, and with hands-on experience in management techniques for conducting and evaluating an environmental project.

BIOL 3440 Plant Propagation and Breeding (3,3,0)
Prerequisite: BIOL 1130 Biodiversity and BIOL 2230 Plant Physiology
This course is divided into two main sections, plant propagation and plant breeding. Students are expected to understand the principles involved in the practices of the two important aspects of applied plant sciences. Both conventional and modern methods, and technology are introduced with emphasis on the plant micropropagation and conventional hybridization breeding.

BIOL 3460 Biotechnology Studies Laboratory I (2,0,6)
Prerequisite: Biology Major Year III standing (Biotechnology Concentration)
This laboratory exercise introduces basic principles and current methods in biotechnology. The topics cover the basic technologies in molecular biology, enzymology and immunology.

BIOL 3470 Biotechnology Studies Laboratory II (2,0,6)
Prerequisite: Biology Major Year III standing (Biotechnology Concentration)
This laboratory exercise introduces basic principles and current methods in biotechnology. The topics cover various techniques currently being used in the area of immunology, plant science, production of microbial products, neurobiology and physiology.

BIOL 3591-2 Applied Biology Project I & II (3,0,9)
Co-requisite: Biology Major Year III standing
This course aims to guide students in the development of research methodology appropriate to the practice of biology. Opportunity will be given to students who work on problems of an applied or interdisciplinary nature that have real-world significance.

BIOL 7010 Advanced Topics in Biotechnology (3,2,0)
Prerequisite: BSc (Hons) in Biology or consent of instructor
This is a postgraduate course which covers the principles and methods of biological and biomedical sciences. It aims at a more in-depth study of selected topics, such as production of recombinant proteins, toxicological study of drugs, and applications of immunological techniques in research.

BIOL 7020 Advanced Topics in Environmental Sciences (3,2,0)
Prerequisite: BSc (Hons) in Biology or consent of instructor
This is a postgraduate course that provides update information in recent advance development in selected areas in environmental science and technology.

BIOL 7030 Environmental Health and Toxicology (3,3,0)
Prerequisite: BIOL 1160 Biological Chemistry and BIOL 2210 Animal Physiology
This course provides general knowledge concerning the various routes of human exposure to toxic chemcials. Main emphasis will be placed on the biological responses to toxicants, methods for evaluating potential toxicity and applications of toxicological data to assess potential health risk.

BIOL 7040 Principles of Environmental Management (3,3,0)
Prerequisite: BIOL 2110 Ecology and SCI 3110 Environmental Chemistry and Pollution Control or Geography Major Year III standing
This course discusses the anthropogenic causes of environmental degradation and the way sustainable growth can be brought about by environment management. This course also examines the framework of environmental planning and management and the techniques for tackling environmental management. This course also applies principles of environmental science to help manage some of the diverse array of environmental problems, in different physical, biological and social environment.

BIOL 7050 Molecular Biology (3,3,0)
Prerequisite: BIOL 1160 Biological Chemistry, BIOL 1210 Cell Biology, BIOL 1310 Microbiology and BIOL 2160 Genetics and Evolution
This course aims to provide a fundamental principle and current techniques in molecular biology with particular regard to topics related to application in biotechnology. Special attention will be given to the organization of eukaryotic genes, the flow of genetic information and the control of gene expression. The recombinant DNA technology in protein engineering will be emphasized.

BIOL 7060 Environmental Biotechnology (3,3,0)
Prerequisite: BIOL 1160 Biological Chemistry and BIOL 1310 Microbiology
This course provides a general understanding of the principles and applications of biotechnology in environmental monitoring, pollution control and contaminants removal. Special emphasis will be placed in biological wastewater treatment, bioremediation and ecological engineering.

BIOL 7070 Fermentation and Enzyme Technology (3,3,0)
Prerequisite: BIOL 1160 Biological Chemistry, BIOL 1210 Cell Biology, BIOL 1310 Microbiology and BIOL 2160 Genetics and Evolution
This course introduces basic principles and current techniques in industrial microbiology and enzyme technology.

BIOL 7080 Immunology (3,3,0)
Prerequisite: BIOL 1210 Cell Biology, BIOL 2160 Genetics and Evolution and BIOL 2210 Animal Physiology
This course provides basic concepts in the rapidly advancing field of Immunology. To expose students to modern and current applications of Immunology in Cell Biology, Molecular Biology and Medical Sciences.

BIOL 7090 Neurobiology (3,3,0)
Prerequisite: BIOL 2210 Animal Physiology
The course studies neurobiology with main emphasis on how neuronal information is integrated in the CNS to control functions such as visual recognition, sleep, memory and movement. The course also studies the autonomic nervous system with emphasis on its control of body functions. Lastly, the relationship between the nervous system and the hormonal system will also be stressed.