MASTER OF SCIENCE IN BIOLOGY

The Master of Science in Biology program is designed to provide a strong foundation in concepts and principles of the life sciences, to develop appropriate skills and to inculcate in the students a proper attitude towards biological research and investigation. The courses are organized to accommodate the varied interests of students pursuing specialization in the environmental to the paramedical fields.

Program Requirements

Advanced Academic Writing Courses	(6 units)
Basic Courses	9 units
Major Courses	15 units
Elective Courses	6 units
Research Seminar	0 units
Comprehensive Exams	0 units
Thesis	6 units
Total	**36 units**

Course Descriptions:

Advanced Academic Writing Courses:

Advanced Technical Reading and Writing 1 (ENG501M)
3 units
The first part of an intensive English academic reading and writing course, focuses on the review of basic reading and writing course, focuses on the review of basic reading and writing skills and their application in the preparation of short academic papers such as definitions and descriptions, and non-prose forms. It emphasizes the mastery of active reading strategies, the effective use of rhetorical and organizational features of academic writing and proper documentation.

Advanced Technical Reading and Writing 2 (ENG502M)
3 units
The second part of an intensive English academic reading and writing course, focuses on the writing of data commentary and the various parts of a research report, with emphasis on the different rhetorical moves and the linguistic features that realize these moves. The course continues to emphasize the observance of integrity in writing and research.

Basic Courses:

Bioethics (BIO503M)
3 units
This is an introduction to the basic theories, principles and concepts of a comprehensive life ethics that ranges from the conventional bioethics understood as biomedical ethics to

ecological or environmental ethics considering that individual and social human health can only be achieved within a healthy planetary biosphere, i.e., a clean natural environment. Such a comprehensive bioethics probes the ethical dimensions of (bio)technological developments in the life sciences, increasingly under pressure of the forces of a globalized market ideology, as they impact on the sustainability of life its

Advanced Genetics Laboratory (BIO602M)
1 unit

of microbial infections will also be discussed. Hand-on activities that emphasize the economic importance of selected bacteria and fungi will also be performed.

Advanced Molecular Biology Lecture (BIO611M)
2 units
This is a course that deals with basic principles and techniques of molecular biology and its applications in biotechnology. It deals with the structure and quantitative analysis. It introduces the basic concepts of

Immunology (BIO633M)
3 units
This course involves familiarization with basic elements of the immune system and concepts/principles governing immune responses (natural and adaptive immunity); conventional and molecular/immunological or serological diagnostic tools/tests/assays of

This is a course which focuses on methods and techniques for morphological study and classification of the flowering plants. It includes laboratory and field activities and use of computer tools on plant identification, description and classification.

Special Problems in Botany (BIO719M)
3 units
The course involves the completion of a research work in Botany wherein primary data are generated. The output is a research paper.

Special Problems in Developmental Biology (BIO722M)
3 units
The course involves the completion of a research work in Developmental Biology wherein primary data are generated. The output is a research paper.

Special Problems in Genetics (BIO718M)
3 units
The course involves the completion of a research work in Genetics wherein primary data are generated. The output is a research paper.

Special Problems in Limnology (BIO720M)
3 units
The course involves the completion of a research work in Limnology wherein primary data are generated. The output is a research paper.

Special Problems in Marine Biology (BIO716M)
3 units
The course involves the completion of a research work in Marine Biology wherein primary data are generated. The output is a research paper.

Special Problems in Medical Microbiology (BIO726M)
3 units
The course involves the completion of a research work in Medical Microbiology wherein primary data are generated. The output is a research paper.

Special Problems in Medical Parasitology (BIO725M)
3 units
The course involves the completion of a research work in Medical Parasitology wherein primary data are generated. The output is a research paper.

Special Problems in Microbiology (BIO713M)
3 units
The course involves the completion of a research work in Microbiology wherein primary data are generated. The output is a research paper.

Special Problems in Molecular Genetics (BIO724M)
3 units

The course involves the completion of a research work in Molecular Genetics wherein primary data are generated. The output is a research paper.

Special Problems in Parasitology (BIO721D)
3 units
The course involves the completion of a research work in Parasitology wherein primary data are generated. The output is a research paper.

Special Problems in Physiology (BIO714M)
3 units
The course involves the completion of a research work in Physiology wherein primary data are generated. The output is a research paper.

Special Problems in Systematics (BIO723M)
3 units
The course involves the completion of a research work in Systematics wherein primary data are generated. The output is a research paper.

Special Problems in Terrestrial Ecology (BIO717M)
3 units
The course involves the completion of a research work in Terrestrial Ecology wherein primary data are generated. The output is a research paper.

Special Problems in Zoology (BIO715M)
3 units
The course involves the completion of a research work in Zoology wherein primary data are generated. The output is a research paper.

Research Seminar:

Research Seminar 1 (BIO852M)
1 unit
This is a course which will serve as a venue for presentation of the results of special problems or researches. Attendance to other seminars or scientific fora may also be required and credited to this course.

Thesis:

Thesis Writing I (BIO876M)
6 units
This course involves the completion of an acceptable proposal written under the supervision of a dissertation adviser and his/her co-adviser. The student must pass an

The course involves the execution of the thesis research under the supervision of a dissertation adviser and his/her co-adviser.

Thesis Writing III-IX (BIO978M-BIO884M)
0 unit
The course involves the continuation of the research proper of the dissertation carried out under the supervision of a thesis adviser and his/her co-adviser. The student may defend his dissertation before the Thesis Defense Panel upon its completion and acceptance by the thesis adviser and co-adviser. The written thesis should conform to the standards set by the department.