

**INTERAMERICAN UNIVERSITY OF PUERTO RICO
METROPOLITAN CAMPUS
DEPARTMENT OF NATURAL SCIENCES
MASTER OF SCIENCE PROGRAM IN MOLECULAR MICROBIOLOGY**

SYLLABUS

I. GENERAL INFORMATION

Course Title: **Research Project**
Code and Number: **MOMI 6989**
Credits: **3**
Academic Term:
Teacher:
Office Hours :
Office Telephone :
Email :

II. DESCRIPTION

Selection and development of a research topic relevant to Molecular Microbiology. The student will demonstrate his ability to interpret and integrate theoretical concepts related to bioinformatics and molecular diagnosis into practical solutions of problems related to these areas. The student will enroll as many times as necessary in a consecutive academic year to complete the project. Grading of the course will be using Pass (P), In progress (PP) or No-Pass (NP).

III. OBJECTIVES

It is expected that the MOMI 6989 course will promote the development of the following competencies into the graduate of the Master of Science Program in Molecular Microbiology:

1. Appreciate the importance of omics disciplines in modern microbiology.
2. Evaluate scientific information from various sources.
3. Apply molecular microbiology methodologies in scientific research aimed at solving problems.
4. Evaluate the most useful platforms for analyzing molecular microbiology data using emerging tools.
5. Argue ideas and research results to the scientific community orally and in writing, in Spanish and English.
6. Assess the importance of ethical standards related to scientific conduct in research, respect for confidentiality and the defense of intellectual property.

At the end of the course, it is expected that the graduate will be able to:

1. Apply published or preliminary research results in the investigation of situations or problems of interest in molecular microbiology.
2. Review relevant scientific literature to study a problem of interest.
3. Propose a valid methodology to investigate a situation or problem.
4. Submit a written dissertation or proposal that includes the most outstanding aspects of their research activities.

IV. THEMATIC CONTENT

- A. Selection of the topic to be studied
 1. Topic identification
 2. Initial review and determination of validity of the topic, according to the variables established by the Research Committee
- B. Analysis of reliable, relevant and applicable references to the study of the topic of interest
- C. Development of literature review related to your topic of interest following the established criteria and style
 1. Critical reading of selected articles
 2. Synthesis of the material to be used as a reference for research activities and in the writing of the written work and in the oral presentation
- D. Writing a research proposal
- E. Defense of the findings of the investigation before the Investigation Committee.

V. ACTIVITIES

1. Bibliographic research
2. Oral presentations
3. One-on-one consultations with counselor or colleagues and group consultations with lab mates, colleagues, and Committee members
4. Proposal drafting

VI. EVALUATION

The evaluation of the student's performance in this course will be governed by the agreements signed between the student, his advisor and the Committee. Any

difference in criteria between the parties will be addressed by the Department Director.

VII. SPECIAL NOTES

A. Ancillary services or special needs

Any student who requires auxiliary services or special assistance must request them at the beginning of the course or as soon as he acquires knowledge that he needs them, through the corresponding registration, in the Office of Services to Students with Disabilities, in the University Orientation Program (Office 111).

B. Honesty, fraud and plagiarism

Dishonesty, fraud, plagiarism and any other inappropriate behavior in relation to academic work constitute major infractions, sanctioned by the General Student Regulations. Major infractions, as provided for in this Regulation, may result in the suspension of the University for a defined period of more than one year or the permanent expulsion from the University, among other sanctions.

C. Use of electronic devices

Cell phones and any other electronic device that could interrupt teaching and learning processes or alter the environment conducive to academic excellence will be deactivated. Pressing situations will be addressed as appropriate. The handling of electronic devices that allow access, storage or sending data during evaluations or exams is prohibited.

D. Compliance with the Provisions of Title IX

The Federal Higher Education Act, as amended, prohibits discrimination on the basis of sex in any academic, educational, extracurricular, athletic, or any other program or employment, sponsored or controlled by an institution of higher education regardless of whether it is conducted on or off the institution's premises, if the institution receives federal funds.

In accordance with current federal regulations, our academic unit has appointed a Title IX Assistant Coordinator who will provide assistance and guidance regarding any alleged incident constituting discrimination based on sex or gender, sexual harassment or sexual assault. Assistant Coordinator Mr. George Rivera can be reached at 787-250-1912, extension 2262 or 2147, or email griverar@metro.inter.edu.

The Normative Document entitled Norms and Procedures to Address Alleged Violations of the Provisions of Title IX is the document that contains the institutional rules to channel any complaint that is filed based on this type of

allegation. This document is available on the website of the Inter-American University of Puerto Rico (www.inter.edu).

VIII. EDUCATIONAL RESOURCES

Textbook - There will be no textbook.

Further Reading

Electronic Resources

<http://www.elsevier.com/journal-authors/publishing-process>

IX. BIBLIOGRAPHY

Day RA and B Gastel. 2011. *How to write and publish a scientific paper.* ABC-CLIO, LLC, Santa Barbara, California.

Glasman-Deal H. 2009. *Science research writing for non-native speakers of English.* Imperial College Press, London.

Lindsay DR. 2011. *Scientific writing=thinking in words.* 2011. CSIRO Publishing, Collingswood VIC, Australia.

Schimel J. 2012. *Writing science: How to write papers that get cited and proposals that get funded.* Oxford University Press, New York.