

UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
SCHOOL OF MEDICINE

PHYSIOLOGY DEPARTMENT

COURSE DESCRIPTION

COURSE TITLE: **MASTER THESIS INVESTIGATION**

COURSE CODE: **FISA 8595**

CREDIT HOURS: **6 CREDITS**

COURSE DURATION: **N/A**

NUMBER OF STUDENTS: **MIN.: 1 MAX.: 15**

COORDINATOR NAME: **STAFF**

COORDINATOR OFFICE HOURS: **TO BE ARRANGED**

COORDINATOR OFFICE: **N/A**

COURSE HOURS: **TO BE ARRANGED**

WHEN WILL BE OFFERED: QUATERLY SEMESTER
 YEAR SUMMER

PREREQUISITE: **THESIS PROPOSAL**

COURSE JUSTIFICATION: **This course is a graduation requirement to obtain a Master degree in Physiology. The purpose of this course is to train the student in all the areas of scientific research including experimental design, conducting the experiment, data analysis, statistical analysis, and writing of a thesis. The student will develop these skills**

with the assistance of a mentor and the members of the thesis committee. The selected research must be original and never studied before.

COURSE DESCRIPTION: Research work in a laboratory for the completion of a Master thesis.

This course provides the student with training in all areas of scientific research. The student, under the guidance of a mentor and the members of the thesis committee, formulates a hypothesis and designs experiments to prove or disprove the hypothesis according to the scientific method. During this process, the student is expected to become an expert in laboratory techniques, experimental design, and data analysis. Effective communication and teaching skills are expected to be developed during this process.

COURSE OBJECTIVES AND EXPECTED RESULTS:

1. Development of skills to research the literature and access current scientific information.
2. Become proficient in multiple research techniques.
3. Development of critical thinking in the context of the scientific method.

The students should provide proficiency with the course objectives, that will be measured by analysis, integration and comparison of the above mentioned concepts, that will be evaluated through multiple choice questions, essay exams, term papers, presentations and/or publications.

COURSE TOPICS AND TIME DISTRIBUTION:

N/A

TEACHING STRATEGIES:

Use of laboratory equipment, supervised research, independent study, seminars, lectures, small group discussions, workshops, research presentations at local and national meetings. the learning process will be facilitated by the mentor, members of the thesis committee, departmental faculty members and other members of the scientific staff.

ESSENTIAL REQUIREMENTS:

Full-time participation
Initiative
Creativity
Responsibility
Ability to work with others
Laboratory notebook

EVALUATION STRATEGIES:

Oral and written reports

**Quality of research work
Thesis presentation**

EVALUATION SYSTEM:

Approved or not approved

BIBLIOGRAPHY:

Recent research articles from the literature chosen by the student and his/her advisor.

REASONABLE ACCOMODATION STATEMENT:

Students with a health condition or situation that, according to the law, makes them eligible for reasonable accommodation have the right to submit a written application to the professor and the dean of their Faculty, according to the procedures established in the document Submittal Process for reasonable Accommodation of the Medical Sciences Campus. A free copy of this document may be obtained at the Office of the Dean for Student Affairs, second floor of the School of Pharmacy building; phone 787-758-2525 ext. 5203. A copy may also be obtained at the Office of the faculty Deans as well as in the MSC web page. The application does not exempt the student from complying with the academic requirements pertaining to the programs of the Medical Sciences Campus.

ACADEMIC INTEGRITY

The University of Puerto Rico promotes the highest standards of academic and scientific integrity. Article 6.2 of the UPR Student Bylaws (Certification JS 13 2009–2010) states that "academic dishonesty includes but is not limited to: fraudulent actions, obtaining grades or academic degrees using false or fraudulent simulations, copying totally or partially academic work from another person, plagiarizing totally or partially the work of another person, copying totally or partially responses from another person to examination questions, making another person to take any test, oral or written examination on his/hers behalf, as well as assisting or facilitating any person to incur in the aforementioned conduct". Fraudulent conduct refers to "behavior with the intent to defraud, including but not limited to, malicious alteration or falsification of grades, records, identification cards or other official documents of the UPR or any other institution." Any of these actions shall be subject to disciplinary sanctions in accordance with the disciplinary procedure, as stated in the existing UPR Student Bylaws.

DISCLAIMER: The above statement is an English translation, prepared at the Deanship of Academic Affairs of the Medical Sciences Campus, of certain parts of Article 6.2 of the UPR Student Bylaws "Reglamento General de Estudiantes de la Universidad de Puerto Rico", (Certificación JS 13 2009-2010). It is in no way intended to be a legal substitute for the original document, written in Spanish.