

UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
SCHOOL OF MEDICINE

PHYSIOLOGY DEPARTMENT

COURSE DESCRIPTION

COURSE TITLE: RESPIRATORY PHYSIOLOGY

COURSE CODE: FISA 8515

CREDIT HOURS: 3 CREDITS (54 HOURS)

COURSE DURATION: **18 WEEKS**

NUMBER OF STUDENTS: MIN. : 3 MAX.: 10

COORDINATOR NAME: DR. MARIA JOSE CRESPO

COORDINATOR OFFICE HOURS: **TO BE ARRANGED**

COORDINATOR OFFICE: A-667

COURSE HOURS: **TO BE ARRANGED (3.0 HRS. /WEEK)**

WHEN WILL BE OFFERED: ___ QUATERLY ___ X ___ SEMESTER
___ YEAR ___ SUMMER

PREREQUISITE:

FISA 8601 AND FISA 8602

COURSE DESCRIPTION: **Respiratory Physiology** - The course consists of both lecture and discussion sessions. Discussions are developed primarily to critical analyses of important scientific papers. Topics covered: (a) O₂ and CO₂ exchange between the atmosphere and blood, with particular emphasis on the role of matching alveolar ventilation and pulmonary capillary diffusion; (b) nervous and chemical regulation of respiration. In addition exercise and/or aviation physiology will also be discussed.

COURSE OBJECTIVES AND EXPECTED OUTCOMES:

- 1. Identify the main features of the respiratory system under discussion. Describe and discuss the relevant new information presented in the literature and attempt to provide a unifying theory for the data discussed.**
- 2. Describe the new information in detail, paying particular attention to new findings which may be of value to other areas of science, as well as respiratory physiology.**
- 3. Analyze events that lead up to the discovery presented. Show how the investigators took advantage of previous knowledge to come to the new discovery.**

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:

**Alveolar Ventilation
Pulmonary Circulation
Gas Transport
Ventilation-Perfusion
Respiratory Control
Exercise Physiology**

TEACHING STRATEGIES:

METHODS:

Seminars
Group discussions
Assigned readings

AUDIOVISUAL RESOURCES:

Power Point
Transparencies
Blackboard

ESSENTIAL REQUIREMENTS:

Attendance
Class Participation

EVALUATION STRATEGIES:

Paper presentations	75%
Class attendance and participation	25%

EVALUATION SYSTEM:

A 90-100 %
B 80-89 %
C 70-79 %
D 60-69 %
F 50-59 %

BIBLIOGRAFY:

Respiratory Physiology, John B. West, 7th Edition (2005). Lippincot Williams and Wilkins Ed.
Pulmonary Pathophysiology, John B. West, 6th Edition (2003). Lippincot Williams and Wilkins

REASANOBLE 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.