Course Specifications

General Information

Course name	Medical Physiology(1) (0602103)
Course number	MEDI2427
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	4
Credit hours (practical)	1
Course Prerequisites	

Course Objectives

1 - This course provides students with basic aspects of medical physiology related to the pulmonary cardiovascular and gastrointestinal systems

2 - Provide knowledge about the neuronal and hormonal control of the related organs, and on body responses and adaptation to various stress conditions and physiological disorders

3 - In addition a physiology lab will include 6 experiments related to the pulmonary, cardiovascular and gastrointestinal systems

Intended Learning Outcomes

Knowledge and Understanding	* The student should understand the basics of human circulation
	* The student should understand the basics of human food digestion and absorption
	* The student should understand the basics of human respiration
Intellectual Skills	* The student should understand the regulation of different systems
	* The student should understand the control of blood pressure
	* The student should understand the foundations of gas transfer through lungs

Course Contents

1 - Pulmonary Ventilation
2 - Mechanics of Pulmonary Ventilation
3 - Pulmonary Volumes and Capacities
4 - Minute Respiratory Volume Equals Respiratory Rate Times Tidal Volume 477 Alveolar Ventilation
5 - Pulmonary Circulation, Pulmonary Edema, Pleural Fluid 483 Physiologic Anatomy of the Pulmonary Circulatory System
6 - Blood Flow Through the Lungs and Its Distribution
7 - Effect of Hydrostatic Pressure Gradients in the Lungs on Regional Pulmonary Blood Flow
8 - Physical Principles of Gas Exchange; Diffusion of Oxygen and Carbon Dioxide Through the Respiratory Membrane
9 - Transport of Oxygen and Carbon Dioxide in Blood and Tissue Fluids
10 - Regulation of Respiration
11 - Respiratory Insuf?ciency— Pathophysiology, Diagnosis, Oxygen Therapy
12 - General Principles of Gastrointestinal Function—Motility, Nervous Control, and Blood Circulation
13 - Propulsion and Mixing of Food in the Alimentary Tract
14 - Secretory Functions of the Alimentary Tract
15 - Digestion and Absorption in the Gastrointestinal Tract
16 - Physiology of Gastrointestinal Disorders

Teaching and Learning Methods

1 - Lectures
2 - Seminars
3 - Group discussions
4 - Lab illustrations

Students Assessment

Assessment Method	TIME	MARKS
final exam	end of the course	50
mid exam	mid course	30
lab exam	end of the course	20

Books and References

Essential books	Guyton and Hall Textbook of Medical Physiology

Knowledge and Skills Matrix

Main Course Contents	Study Week	Knowledge and Understanding	Intellectual Skills	Professional Skills	General Skill
discussion of the physiologic and functional basis of homeostasis of lungs and GIT	16 weeks				