



Course Syllabus

Course Code	Course Title	ECTS Credits
PHAR-365E	Φαρμακολογία και Θεραπευτική Ι/ Pharmacology and Therapeutics I	6
Prerequisites	Department	Semester
PHAR-215E	Life and Health Sciences	Fall/Spring
Type of Course	Field	Language of Instruction
Compulsory	Pharmacy	Greek/English
Level of Course	Lecturer(s)	Year of Study
1 st Cycle	Dr Zacharia Lefteris	3
Mode of Delivery	Work Placement	Corequisites
Face-to-Face	N/A	N/A

Course Objectives:

The main objectives of the course are to:

- gain knowledge of the principles of pharmacological action of drugs, and fate of drugs in the body
- define the basis of therapeutic actions of drugs in a number of specific disease areas
- understand how antagonizing or activating a receptor or channel brings about a therapeutic effect

Learning Outcomes:

After completion of the course students are expected to be able to:

- Classify fundamental principles of drug action, including basic pharmacokinetics and pharmacodynamics
- Define and describe the therapeutic uses and routes of administration of the major classes of drugs
- Specify and examine the mechanism of action of each of the major classes of drugs at the molecular/cellular and organ/organ system level
- Apply the knowledge of drug mechanisms of action to predict therapeutic and adverse effects
- Name common side effects associated with major classes of drugs and their implications for patient management
- Develop critical thinking skills in which they apply knowledge of drug action to the pharmacotherapeutic management of disease

- Outline the possible or prospective therapeutic application of a compound based on the general understanding of how specific agonists or antagonists bring about a therapeutic effect

Course Content:

•	Introduction to Pharmacology
•	Pharmacokinetics
•	Pharmacodynamics
•	Drugs acting on the Autonomic Nervous system
•	The autonomic nervous system
•	Cholinergic agonists
•	Cholinergic antagonists
•	Adrenergic agonists
•	Adrenergic antagonists
•	Drugs acting on the cardiovascular system
•	Heart failure
•	Antiarrhythmics
•	Antianginal drugs
•	Antihypertensive
•	Hyperlipedemics
•	Diuretics
•	Drugs that act on the Endocrine system
•	Pituitary and Thyroid
•	Insulin and oral hypoglycemic drugs
•	Estrogens and androgens
•	Adrenal hormones
•	Drugs acting on the pulmonary system
Laboratory exercises	
1. Autonomic nervous system - Cholinergic system (computer simulation)	
2. Langedorf heart model (catecholamines) (computer simulation)	
3. Animal models	
4. Blood pressure-whole animal (catecholamines) (computer modelling)	

Learning Activities and Teaching Methods:

Lectures, class discussion, assignments, laboratory

Assessment Methods:

Final exam, Midterm exam, assignment

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Pharmacology 6 th ed./ Φαρμακολογία	R. A. HARVEY, P. C. CHAMPE	Lippincott Williams & Wilkins/ Επιστημονικές Εκδόσεις ΠΑΡΙΣΙΑΝΟΥ Α.Ε	2015	9781469887562 EN 9789605830854 GR
Pharmacology/ Φαρμακολογία	RANG, DALE, RITTER, MOORE	Churchill Livingstone Elsevier/ Επιστημονικές Εκδόσεις ΠΑΡΙΣΙΑΝΟΥ Α.Ε	2007	9789603944294