



UNIVERSITY OF NICOSIA

ΠΑΝΕΠΙΣΤΗΜΙΟ ΛΕΥΚΩΣΙΑΣ

Course Code PHAR-365	Course Title Pharmacology and Therapeutics I/Φαρμακολογία και Θεραπευτική I	Credits (ECTS) 6
Department Life & Health Sciences	Semester Fall	Prerequisites PHAR-215, PHAR-120
Type of Course Required	Field Pharmacy	Language of Instruction Greek/English
Level of Course 1 st Cycle	Year of Study 3 rd year	Lecturer Zacharia Lefteris
Mode of Delivery face-to-face	Work Placement N/A	Co-requisites None

Objectives of the Course:

The aims of this module are to enable students to:

- gain a knowledge of the principles of pharmacological action of drugs, and fate of drugs in the body
- understand 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:

Students are expected to develop a solid understanding of the principles by which drugs produce effects in the human system. As such, they will:

- Understand fundamental principles of drug action, including basic pharmacokinetics and pharmacodynamics
- Become familiar with the therapeutic uses and routes of administration of the major classes of drugs.
- Understand the mechanism of action of each of the major classes of drugs at the molecular/cellular and organ/organ system level.
- Use their knowledge of drug mechanisms of action to predict therapeutic and adverse effects.
- Know 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.
- Know 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 Contents:

<ul style="list-style-type: none">• Introduction to Pharmacology<ul style="list-style-type: none">○ Pharmacokinetics○ Pharmacodynamics• Drugs acting on the Autonomic Nervous system<ul style="list-style-type: none">○ The autonomic nervous system○ Cholinergic agonists○ Cholinergic antagonists○ Adrenergic agonists○ Adrenergic antagonists• Drugs acting on the cardiovascular system<ul style="list-style-type: none">○ Heart failure○ Antiarrhythmics○ Antianginal drugs○ Antihypertensive○ Blood drugs○ Hyperlipedemics○ Diuretics• Drugs that act on the Endocrine system<ul style="list-style-type: none">○ Pituitary and Thyroid○ Insulin and oral hypoglycemic drugs○ Estrogens and androgens○ Adrenal hormones○ Drugs acting on the pulmonary system○ Drugs of the GI tract and antiemetics
<ul style="list-style-type: none">○ Laboratory exercises○ 1. Competitive inhibition (modeling)○ 2. Dose response in the presence of an agonists○ 3. Conversion of a pro drug to active form-antagonism○ 4. Experimental therapeutics-determination of receptor mediated effect○ 5. Muscle contraction with acetylcholine/inhibition by Atropine○ 6. Negative Chronotropic agents and effect of route of administration

Learning Activities and Teaching Methods:

Lectures, class discussion, assignments, laboratory

Assessment Methods:

Final Examination, Course work

Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
R. A. HARVEY, P. C. CHAMPE	Pharmacology/ Φαρμακολογία	Lippincott Williams & Wilkins/ Επιστημονικές Εκδόσεις ΠΑΡΙΣΙΑΝΟΥ Α.Ε		

Recommended Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
RANG, DALE, RITTER, MOORE	Pharmacology/ Φαρμακολογία	Churchill Livingstone Elsevier/ Επιστημονικές Εκδόσεις ΠΑΡΙΣΙΑΝΟΥ Α.Ε		