



## Course Syllabus

<b>Course Code</b>	<b>Course Title</b>	<b>ECTS Credits</b>
IMPH-365	Pharmacology and Therapeutics I/ Φαρμακολογία και Θεραπευτική Ι	7
<b>Prerequisites</b>	<b>Department</b>	<b>Semester</b>
IMPH-215	Health Sciences	Fall/Spring
<b>Type of Course</b>	<b>Field</b>	<b>Language of Instruction</b>
Compulsory	Pharmacy	Greek/English
<b>Level of Course</b>	<b>Lecturer(s)</b>	<b>Year of Study</b>
1 <sup>st</sup> Cycle	Dr Zacharia Lefteris/Dr Eleftheria Galatou/Dr Millioti Androulla	3 <sup>rd</sup>
<b>Mode of Delivery</b>	<b>Work Placement</b>	<b>Corequisites</b>
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
- understand the basis of the mode of action of drugs in different disease states

### Learning Outcomes:

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

1. Identify the basis by which drugs bring about a therapeutic effect in man
2. Classify fundamental principles of drug action, including basic pharmacokinetics and pharmacodynamics
3. Define and describe the therapeutic uses and routes of administration of the major classes of drugs
4. Specify and examine the mechanism of action of each of the major classes of drugs at the molecular/cellular and organ/organ system level
5. Apply the knowledge of drug mechanisms of action to predict therapeutic and adverse effects
6. Name common side effects associated with major classes of drugs and their implications for patient management

7. Develop critical thinking skills in which they apply knowledge of drug action to the pharmacotherapeutic management of disease

**Course Content:**

<b>1</b>	<b>Introduction to Pharmacology</b>
<b>2</b>	<b>Drugs acting on the Autonomic nervous System</b> <ul style="list-style-type: none"><li>• The autonomic nervous system</li><li>• Cholinergic agonists</li><li>• Cholinergic antagonists</li><li>• Adrenergic agonists</li><li>• Adrenergic antagonists</li></ul>
<b>3</b>	<b>Drugs acting on the cardiovascular system</b> <ul style="list-style-type: none"><li>• Heart failure</li><li>• Antiarrhythmics</li><li>• Antianginal drugs</li><li>• Antihypertensive</li><li>• Anti Hyperlipedemics</li><li>• Diuretics</li></ul>
<b>4</b>	<b>Drugs acting on other systems</b> <ul style="list-style-type: none"><li>• Pituitary and Thyroid</li><li>• Insulin and oral hypoglycemic drugs</li><li>• Estrogens and androgens</li><li>• Adrenal hormones</li><li>• Drugs acting on the pulmonary system</li></ul>
<b>5</b>	<b>Other Drugs</b> <ul style="list-style-type: none"><li>• Drugs affecting the blood</li><li>• Drugs for the GI system and antiemetics</li></ul>
<b>6</b>	<b>Exercises</b> <ol style="list-style-type: none"><li>1. Autonomic nervous system - Cholinergic system (computer simulation)</li><li>2. Langedorf heart model (catecholamines) (computer simulation)</li><li>3. Blood pressure-whole animal (catecholamines) (computer modelling)</li></ol>

**Learning Activities and Teaching Methods:**

Lectures, class discussion, assignments

**Assessment Methods:**

Final exam, Midterm exam, assignment
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**Required Textbooks / Readings:**

Title	Author(s)	Publisher	Year	ISBN
Pharmacology 7 <sup>th</sup> ed./	R. A. HARVEY, P. C. CHAMPE	Lippincott Williams & Wilkins/	2018	9781469887562 EN 978- 1496384133

**Recommended Textbooks / Readings:**

Title	Author(s)	Publisher	Year	ISBN
Pharmacology 9 <sup>th</sup> edition	RANG, DALE, RITTER, MOORE	Churchill Livingstone Elsevier/	2019	9780702074479