



<b>Course Code</b> PHAR-106	<b>Course Title</b> Introduction to Bioactive Compounds/ Εισαγωγή στα Βιοδραστικά Μόρια	<b>Credits (ECTS)</b> 5
<b>Department</b> Life & Health Sciences	<b>Semester</b> Spring	<b>Prerequisites</b> None
<b>Type of Course</b> Required	<b>Field</b> Pharmacy	<b>Language of Instruction</b> Greek/English
<b>Level of Course</b> 1 <sup>st</sup> Cycle	<b>Year of Study</b> 1 <sup>st</sup> year	<b>Lecturer</b> Yiota Gregoriou/Christos Petrou
<b>Mode of Delivery</b> face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

#### **Objectives of the Course:**

The aims of this course are to:

- introduce the students into the subject of bioactivity and bioactive compounds.
- explain to major paths of bioactivity
- explain the importance of physicochemical parameters in drug action
- give a brief description of structure-activity relationship
- present the path of discovery of some major bioactive compounds
- explain in general the “movement” of drugs into the body
- explain the role of bioactive compounds of natural origin,
- explain the similarities and differences between food and drugs,
- explain the fate of drugs in the environment

#### **Learning Outcomes:**

By the end of this course, the students will:

- Know about bioactivity and bioactive compounds;
- Understand the important role of synthetic compounds as environmental pollutants (ecopharmacovigilance)
- Know the relationships of food and bioactive compounds.
- Know about the drug sources
- Explain the role of physicochemical parameters in drug action
- Explain the of structure-activity relationship

- Know the relationships of food and bioactive compounds.

### Course Contents:

- Definition, description, nature, targets of bioactivity. Relationship between biologic action, chemical structure and physicochemical properties.
- Intro to molecular pharmacology and binding sites
- Intro to pharmacokinetics and actions of the body to the molecules
- Drug targets and cause of action
- Intro to drug metabolism and excretion
- Drugs in the environment and pollution. Dangers of bioactivity of the drugs waste
- Computer Simulation Lab on Pharmacokinetics and dosage
- Intro to ecoPharmacovigilance

### Learning Activities and Teaching Methods:

Lectures, class discussion, assignments, practicals

### Assessment Methods:

Final Examination, course work

### Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
	Rang and Dale's Pharmacology	Μετάφραση στα ελληνικά Εκδόσεις Παρισιάνου		
	1) "Xenobiosis. Food, drugs and poisons in the human body", A. Albert, Chapman & Hall. 2) "Murder, magic and medicine", J. Mann, Oxford University Press.			
	British National Formulary	Pharmaceutical Press		

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