

Course Outline: “5107 - Pharmacology”

1. General information

FACULTY/SCHOOL	Physical Education, Sport Science & Nutrition		
DEPARTMENT	Nutrition & Dietetics		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	5107	SEMESTER	5th
COURSE TITLE	Pharmacology		
INDEPENDENT TEACHING ACTIVITIES in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits		WEEKLY TEACHING HOURS	CREDITS
Lectures		2	
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>		2	3
COURSE TYPE <i>Background knowledge, Scientific expertise, General Knowledge, Skills Development</i>	Scientific expertise		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION	Greek		
LANGUAGE OF EXAMINATION/ASSESSMENT	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/DND_U_242/		

2. LEARNING OUTCOMES

<p>Learning Outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult: Συμβουλευτείτε το APPENDIX A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.</i> • <i>Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and</i> <p>APPENDIX B</p> <ul style="list-style-type: none"> • <i>Guidelines for writing Learning Outcomes</i> 			
<p>Pharmacology examines the course and way of action of drugs inside the organism. Upon completion of the course, the students will have acquired the necessary knowledge concerning the basic principles of Pharmacology and the biochemical and molecular mechanisms of drug action. In particular, they will have gained insight into how drugs interact with cellular targets and act. During the course, the mechanisms of actions of drugs in various systems, such as nervous, respiratory and digestive are examined, whereas topics of specialized knowledge namely the chemotherapeutic action of drugs against microorganisms and cancer cells, pharmacogenomics and food-drug interactions are also analyzed.</p>			
<p>General Competences <i>Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?</i></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <i>Search for, analysis and synthesis of data and information by the use of appropriate technologies, Adapting to new situations Decision-making Individual/Independent work Group/Team work Working in an international environment Working in an interdisciplinary environment Introduction of innovative research</i> </td> <td style="width: 50%; border: none; vertical-align: top;"> <i>Project planning and management Respect for diversity and multiculturalism Environmental awareness Social, professional and ethical responsibility and sensitivity to gender issues Critical thinking Development of free, creative and inductive thinking (Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i> </td> </tr> </table>		<i>Search for, analysis and synthesis of data and information by the use of appropriate technologies, Adapting to new situations Decision-making Individual/Independent work Group/Team work Working in an international environment Working in an interdisciplinary environment Introduction of innovative research</i>	<i>Project planning and management Respect for diversity and multiculturalism Environmental awareness Social, professional and ethical responsibility and sensitivity to gender issues Critical thinking Development of free, creative and inductive thinking (Other.....citizenship, spiritual freedom, social awareness, altruism etc.)</i>
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<ul style="list-style-type: none"> • Individual/Independent work • Group/Team work • Working in an interdisciplinary environment • Introduction of innovative research 			

- Development of free, creative and inductive thinking

3. COURSE CONTENT

- Introduction to Pharmacology - History of Pharmacology
- Stages of drug development – Preclinic and clinical trials
- Pharmacokinetics: Absorption, distribution, metabolism, excretion of drugs
- Molecular targets of drugs
- Drugs of the autonomous nervous system
- Drugs of the central nervous system
- Drugs of the cardiovascular system
- Drugs of the digestive system
- Drugs of the respiratory system
- Pharmaceutical Toxicology (Poisoning)
- Pharmacogenomics
- Chemotherapy - Anticancer drugs Pharmacogenomics
- Antibiotics
- Food-drug interactions

4. TEACHING METHODS - ASSESSMENT

<p style="text-align: center;">MODES OF DELIVERY</p> <p style="text-align: center;"><i>Face-to-face, in-class lecturing, distance teaching and distance learning etc..</i></p>	Face to face	
<p style="text-align: center;">USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</p> <p style="text-align: center;"><i>Use of ICT in teaching, Laboratory Education, Communication with students</i></p>	<p>1. Lectures in power point documents</p> <p>2. Research or review papers in pdf documents</p> <p>3. Laptops for the projection of relevant videos</p> <p>4. The lectures in pdf documents that are announced to the students through the eclass platform</p> <p>The students get in touch with the instructor either directly (through face to face contact or email) or indirectly (through notes posted on the poster boards and the website of the Department).</p>	
<p style="text-align: center;">COURSE DESIGN</p> <p style="text-align: center;"><i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc. The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.</i></p>	Activity/Method	Semester workload
	Lectures	2 × 13 = 26
	Literature analysis	15
	Preparation for the exams	34
<p style="text-align: center;">STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</p> <p style="text-align: center;"><i>Detailed description of the evaluation procedures:</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.</i></p>	<p>The assessment language is Greek. The performance of the students is assessed through written exams.</p>	

5. SUGGESTED BIBLIOGRAPHY

- Suggested bibliography:
- Katzung BG, Vanderah TW. Basic & Clinical Pharmacology, 15e. McGraw Hill, 2021.
- Color Atlas of Pharmacology, Lüllmann H, Mohr K, Hein L, Bieger D, Thieme, 3rd edition, 2005.

- *Scientific journals:*

- Nature Reviews Drug Discovery
- Biochemical Pharmacology
- Trends in Pharmacological Sciences
- Current Opinion in Pharmacology
- British Journal of Pharmacology
- European Journal of Pharmacology
- Molecular Pharmacology