Course Title	**Pharmacology in Physiotherapy**				
Course Code	PHYS304				
Course Type	Compulsory				
Level	Bachelor (Level 1)				
Year / Semester	3d/Spring				
Instructor's Name	Dr Charalambos Triantis				
ECTS	3	**Lectures / week**	2	**Laboratories/week**	
Course Purpose	The aim of the course is to provide students with knowledge about the basic principles of general pharmacology, the main categories of drugs per disease and system, their indications for use and their side effects. Specifically, it aims to familiarize students with the short-term as well as long-term effects of each pharmaceutical preparation in relation to the various pathologies of the neuro-musculoskeletal, cardiorespiratory and neurological systems.				
Learning Outcomes	Upon completion of the theoretical part of the course the student is expected to be able to: • Define the concept of the drug and the dosage regimen • Identify the mechanisms by which drugs manifest their action • Describe the basic rules of pharmacokinetics governing the absorption, distribution, metabolism and removal of drugs from the body • Recognize the different types of adverse reactions and correlates them with the action of drugs • Identify the mechanisms of interaction between drugs and the possible effects on the concentration or efficacy of drugs • Recognize the classification of drugs by therapeutic class (Anatomical Therapeutic Chemical (ATC) Classification System) and correlate it with their indications for use • Recognize the effect of drugs on clinical reasoning and the indications and indications of choice of physiotherapeutic interventions				
Prerequisites	None	Co-requisites		None	
Course Content	• General Pharmacology • Definitions, introduction to pharmacology, pharmacodynamics and pharmacokinetics.				

	• Pharmaceutical forms and routes of drug administration and Principles of prescribing • Basic principles of pharmacodynamics Agonists, Antagonists, types of drug receptors, measurement of the pharmacological and toxic action of drugs. • Pharmacokinetics: Absorption, bioavailability, distribution, metabolism, drug excretion. • Basic unit exercises and calculation of pharmaceutical doses. • Adverse Drug Reactions and Interactions, Pharmacovigilance and Adverse Reactions Reporting • Tolerance, Addiction, Drug Addiction. Authoritative sources of information on medicines and how they work • Falsified medicinal products • Special Pharmacology. • Drugs that act on the central nervous system: sympathetic system drugs. Parasympathetic system drugs. CNS depressants – hypnotics. Anticonvulsants. Antipsychotics. Antidepressants - antimaniacs. Minor sedatives. Antiparkinsonian. • Antibiotics. • Drugs that act on the cardiorespiratory and circulatory systems. • Antipyretic, analgesic, anti-inflammatory analgesics. • Drugs that act on the musculoskeletal system. • Drugs that act on the nervous system • Chemotherapeutic-antineoplastic drugs. • Effect of medication on Physiotherapy clinical reasoning
Teaching Methodology	The course is delivered to the students through lectures, using computer-based presentations programmes. Case Studies, Discussion, Questions / Answers are also used depending on the content of the lecture. Lecture notes and presentations are available online for use by students in combination with textbooks. Relevant material published in international scientific journals is also used to follow the latest developments related to the subject of the course.
Bibliography	**Textbooks:** Karen Whalen. Lippincott Illustrated Reviews: Pharmacology. Wolters Kluwer, 8th Edition, 2022 R. Harvey, Whalen K. Finkel R, Panavelil T. Lippincott Pharmacology, 6th Edition, Greek Publisher Parisianos, 2015 **References:** Netter Atlas of Basic Medical Sciences, (2008) Pharmacology. Athens: P.C. Paschalidis Publications. Page C, Curtis M, Sutter M, Walker M, Hoffman B. (2008) Φαρμακολογία. Αθήνα: Εκδόσεις Π.Χ Πασχαλίδη.

	Simonsen T, Aarbakke J, Kayl, Coleman I, Sinott P, Lysaa R. (2009) Nursing Pharmacology. Athens: P. Chp. Aschalidis Publications.
Assessment	**<u>Continuous Assessment (50%):</u>** The assessment may include any combination of the following: • **Written and/or oral**, and it consists of multiple – choice, short answer, open ended questions and/or essay questions, that align with the learning outcomes, in order to assess the theoretical knowledge gained. The questions ensure that students will demonstrate a deep understanding of the subject matter and apply their knowledge to solve problems or analyse scenarios. • **Assignments and projects** provide opportunities for students to apply their theoretical knowledge in practical ways. The assignments are designed in a way that require critical thinking, research, analysis, and synthesis of information. Projects can be individual, self directed learning or group-based and should align with the learning outcomes. Students are evaluated on the quality of their work, the depth of understanding displayed, and their ability to effectively communicate their ideas. Assignments and projects may be individual or group work. • Use of **case studies or problem-solving exercises** to assess how students can apply theoretical knowledge to real-life situations. Students are presented with scenarios that require analysis, critical thinking, and the application of theoretical concepts and they are assessed based on their ability to perform verbal presentations, viva voce examinations, identify and evaluate relevant information, propose solutions, and provide justifications for their choices. • **Online quizzes or interactive assessments**: Online quizzes or interactive assessments, reflective writing can be used through the Moodle platform, to create quizzes with various question formats. These assessments can be self-paced or timed, and immediate feedback can be provided to students. • **Classroom discussions and debates**: Students engage in classroom discussions and debates to assess their theoretical knowledge. Active participation is encouraged to hone their critical thinking skills by posing open-ended questions and facilitating dialogue. • **Peer and self-assessment**: Students are assigned to review and provide feedback on each other's work, encouraging them to critically evaluate their peers' understanding and provide constructive suggestions. **Final Exam (50%):** comprehensive final exam, to assess students' overall theoretical knowledge. These assessment covers a broader range of topics and learning outcomes from the entire program of study, to gauge the students' understanding and integration of knowledge across different areas.
Language	Greek / English