Course Title	**Pharmacology**				
Course Code	**NURS108**				
Course Type	Compulsory				
Level	BSc (Level 1)				
Year / Semester	1st / Spring				
Instructor's Name	Dr Charalampos Triantis				
ECTS	5	Lectures / week	2+1*	Laboratories/week	-
Course Purpose	The aim of the subject is to provide students with proper knowledge about the biological, pharmacological, and therapeutic effects and usage of drugs. Furthermore, this course prepares nurses to collaborate with other healthcare scientists in the community or in the hospital ward, on problems of pharmacotherapy, setting of therapeutic schemes, drug doses, and drug interactions.				
Learning Outcomes	By the end of this course, the students should be able to: - Define and describe pharmacology as a science, its aim, the different types of drugs, their classification according to pharmacological action, ways of use, and routes of administration (parenteral, non-parenteral, oral, otologic, nasal, rectal, transdermal, inhalational). - Explain the action of a compound at molecular, cellular, tissue, visceral, organ system, and whole-organism level. - Distinguish pharmacodynamic and chemotherapeutic agents and their differences. - State the biological and pharmacological properties of the common drugs. - Describe immunization, immunization agent, vaccines (indications and precautions) as well as the usefulness of various drugs and devices. - Analyze the importance of eating habits and demand for nutritional elements (protein, carbohydrates, lipids, vitamins, and inorganic elements). Special reference to nutritional demands during infancy and adolescence. - Describe the pharmacology of the Autonomic and Central Nervous System, its connection to various diseases, and the main drug categories relevant to the Autonomic and Central Nervous System. - Analyze the therapeutic efficacy of cardiovascular disease drugs. - Describe drugs that affect the endocrine system - Analyse inflammation, its connection to various pathological conditions, and the main non-steroidal anti-inflammatory drugs used in therapy. - Describe antibiotic agents, their classification and their spectrum, routes of administration, indications, and contraindications. Antiseptics and disinfectants. - Define the anti-neoplastic factors and the most important anti-cancer				

	drugs, precautions concerning their use, patient preparation, and evidence of toxicity.		
Prerequisites	None	Corequisites	None
Course Content	- Introduction to pharmacology: Pharmacological classification of drugs. Principles of drug therapy. Pharmacokinetics and Pharmacodynamics. Routes of administration. The role of nurses in drug administration. - Drugs affecting the Autonomic and Central Nervous System (cholinergic, adrenergic drugs, anesthetics, opioid analgesics, drugs for neurodegenerative, and psychiatric disorders, etc). - Drugs affecting the Cardiovascular System (arterial hypertension, ischemic heart disease, heart failure, arrhythmias, dyslipidemia, etc). - Drugs affecting the Endocrine System (pituitary, thyroid, adrenal glands, etc) - Drugs affecting Respiratory, Gastrointestinal and Urinary System. - Non Steroids Anti-inflammatory and analgesic drugs. - Chemotherapy: Antibacterial (Antibiotics, antiseptics and disinfectants), Antifungal and antiviral agents, Anticancer Drugs. Immunosuppressants. ***tutorial hours**		
Teaching Methodology	**Theory** 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 are also used to follow the latest developments related to the subject of the course. **Tutoring** Students will also have the opportunity during the tutoring exercises to understand and consolidate the theoretical part of the course.		
Bibliography	**(a) Textbooks:** Whalen, K. (2022). *Lippincott Pharmacology*. WOLTERS KLUWER MEDICAL. Whalen, K. & Harvey, R. A. (2015). *Lippincott Φαρμακολογία*, 6η Έκδοση. Παρισιανού Α.Ε. **(In Greek)** **(b) References:** Laurence Brunton, Randa Hilal-Dandan, Bjorn Knollmann. (2017). *Goodman and Gilman's The Pharmacological Basis of Therapeutics*. 13th edition. McGraw-Hill Education, 2017		

3	Trounce Κλινική Φαρμακολογία για Νοσηλευτές. Παρισιανού Α.Ε., 18 η Έκδοση 2015 **(In Greek)** Lynn, P. (2019). *Lippincott photo atlas of medication administration*. Philadelphia, Pa: LWW Wolters Kluwer. *Through the services of the university library, access is provided to electronic repositories of scientific journals and articles, indicatively **ProQuest, Cambridge University Press** and **Science Direct** with thousands of scientific journals in the fields of health sciences.*
Assessment	The evaluation of the course consists of continuous assessments (coursework: mid-term examination, active participation in the classroom) and final examination. **Midterm exam: 40%.** The written mid-term exam consists of multiple-choice questions, short answer questions and open questions. **Student participation: 10%.** Participation in the classroom includes educational assessments with interactive problem-solving questions. **Final exam: 50%.** The written final exam includes multiple-choice questions, short answers and open questions.
Language	Greek, English