



48SJ-PHAT33

ECTS: 9

YEAR: 2022L

**PHARMACOLOGY AND TOXICOLOGY 3/3**  
**PHARMACOLOGY AND TOXICOLOGY 3/3****COURSE CONTENT  
CLASSES**

Drugs used in respiratory diseases Antibiotics and chemotherapeutics: Beta-lactams and other influencing the wall and cell membrane Tetracyclines, macrolides Amino glycosides and spectinomycin, clindamycin, chloramphenicol, streptogramins and oksazolidinomy Sulfonamides, Trimethoprim, quinolones, other The clinical use of antimicrobials. Antituberculosis drugs, Antifungal drugs, Antiviral drugs, Clinical pharmacology of drugs used in parasites, and others Drugs used in ophthalmology, Drugs used in dermatology chemotherapy of cancer Immunopharmacology Vaccines.Toxicology Potential therapeutic effects and toxicity of OTC Interaction between drugs

**LECTURES**

1. Pharmacology of the respiratory drugs 2. Antibiotics 3. Drugs used in the treatment of fungal, viral and parasite infection 4. Chemotherapy of neoplastic diseases , drugs used for immunomodulation 5. Safety of pharmacotherapy 6. Principles of Toxicology 7. Substance dependence, interactions and drug addiction

**EDUCATIONAL OBJECTIVE:**

The basic aim in the pharmacology and toxicology teaching is learning and understanding by students mechanisms of drug action, adverse and toxic effects and possible interactions which can occur during polytherapy. Special attention is given to pharmacotherapy's safety and efficient drug use in a therapy of particular diseases.

**DESCRIPTION OF LEARNING OUTCOMES FOR THE COURSE IN RELATION TO FIELD AND MAJOR  
LEARNING OUTCOMES**

Codes of learning outcomes in a major field of study: M/NM+++,

Codes of learning outcomes in a major area of study: C.U13.+ , C.U14.+ , C.U15.+ , C.U16.+ , C.U17.+ , C.U18.+ , C.U19.+ , C.W.34.+ , C.W.36.+ , C.W.37.+ , C.W.38.+ , C.W.39.+ , C.W.40.+ , C.W35.+ , C.W41.+ , C.W42.+ , C.W43.+ , C.W44.+ , C.W45.+ , K.1.+ , K.2.+ , K.3.+ , K.4.+ ,

**LEARNING OUTCOMES:****Knowledge**

W1 - The student is able to discuss the mechanisms of action of drugs, adverse effects, toxic, as well as possible interactions that may appear during polytherapy. Has knowledge of the indications, contraindications and dosage of drugs. He knows the rules for the use of antimicrobials, the principles of treatment for poisoning. Has knowledge of the pharmacology of developmental and geriatric age.

**Skills**

U1 - The student demonstrates the ability to use drugs in the therapy of specific diseases. He can save ready-made medicines. Knowing the main groups of drugs that interact, can apply the drug in a given group of patients, e.g. older people, children.

**Social competence**

K1 - The student can establish and maintain a deep and respectful contact with the patient. He is guided by the good of the patient, placing them in the first place. Respects medical confidentiality and patient's rights. He is aware of his own limitations and the ability to constantly improve his skills.

**BASIC LITERATURE**

1) Rang H.P., Dale M.M., Ritter J.M., Flower R., Mirowska-Guzel D., Czlonkowski A., Farmakologia Rang i Dale, wydanie 2, wyd. Elsevier, 2015 ; 2) Katzung B.G., Trevor A.J., Basic&Clinical Pharmacology, wyd. McGrawHill Education, 2015

**SUPPLEMENTARY LITERATURE**

1) Hilal-Dandan R., Brunton L., Goodman and Gilman's Manual of Pharmacology and Therapeutics, wyd. McGrawHill Education, 2013

**Course/module:**

Pharmacology and Toxicology 3/3

**Fields of education:****Course status:** mandatory**Course group:** A - przedmioty podstawowe**ECTS code:****Field of study:** Medicine**Specialty area:** Medicine**Educational profile:** General academic**Form of study:** full-time**Level of study:** uniform master's studies**Year/semester:** 3 / 6**Type of course:**

Classes, Seminar, Lecture

**Number of hours per semester/week:** Classes: 30, Seminar: 30, Lecture: 15**Teaching forms and methods**

Classes(K1, U1, W1) : Auditory exercises - Choosing pharmacotherapy for diseases and disorders presented in class., Seminar(K1, U1, W1) : General pharmacology, Drug production. Legal regulations regarding medicines. Pharmacodynamics: Fundamentals of pharmacology, Fundamentals of pharmacodynamics, Receptors for drugs and pharmacodynamics, Production of drugs and drug regulations. Basics of pharmacokinetics. Drug interactions. Biotransformation of drugs. Basics of pharmacokinetics. Pharmacokinetics: Temporary course of action of the drug, Target concentration, Intervention in target concentration, Interpretation of drug concentration measurements, Drug interactions, Biotransformation of drugs, Clinical significance of drug metabolism. Pharmacotherapy safety. Harmful effects of drugs. General anesthetic, local anesthesia, skeletal muscle relaxants., Lecture(K1, U1, W1) : Lecture presentation of medicines and pharmacotherapy principles. (W1, U1, K1)

**Form and terms of the verification results:**

CLASSES: Colloquium test - null(K1, U1, W1) ; SEMINAR: Colloquium test - null(K1, U1, W1) ; LECTURE: Colloquium test - null(K1, U1, W1)

**Number of ECTS points:** 9**Language of instruction:** English**Introductory courses:**

biochemistry, physiology

**Preliminary requirements:**

Understanding of the basic physiological processes in the organism on the cellular, organic and systemic level – understanding of pathomechanisms of central nervous system diseases

**Name of the organizational unit offering the course:**

Katedra Farmakologii i Toksykologii,

**Person in charge of the course:**

dr n. med. Krzysztof Nosek, , dr wet. Piotr Jakubowski,

**Course coordinators:**

Notes:

## Detailed description of the awarded ECTS points - part B

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### **PHARMACOLOGY AND TOXICOLOGY 3/3** **PHARMACOLOGY AND TOXICOLOGY 3/3**

The awarded number of ECTS points is composed of:

#### 1. Contact hours with the academic teacher:

- participation in: classes	30 h.
- participation in: seminar	30 h.
- participation in: lecture	15 h.
- consultation	5 h.
	80 h.

#### 2. Student's independent work:

- 1 godzina została zrealizowana jako samodzielna praca studenta: przygotowanie do kolokwium, przygotowanie do zaliczenia końcowego. 1 h.

1 h.

1 ECTS point = 25-30 h of the average student's work, number of ECTS points = 81 h : 25 h/ECTS = 3,24 ECTS  
on average: **9 ECTS**

- including the number of ECTS points for contact hours with direct participation of the academic teacher: 3,20 ECTS points,  
- including the number of ECTS points for hours completed in the form of the student's independent work: 5,80 ECTS points,