POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

COURSE DESCRIPTION CARD - SYLLABUS

Course name
General pharmacology [S1IFar2>FO]

Course

Field of study Pharmaceutical Engineering	**Year/Semester** 3/6
Area of study (specialization) –	**Profile of study** general academic
Level of study first-cycle	**Course offered in** Polish
Form of study full-time	**Requirements** compulsory

Number of hours

Lecture 30	**Laboratory classes** 0	**Other** 0
Tutorials 0	**Projects/seminars** 0	

Number of credit points

2,00

Coordinators	**Lecturers**
prof. dr hab. Przemysław Mikołajczak przemyslaw.mikolajczak@put.poznan.pl	
dr Katarzyna Manikowska katarzyna.manikowska@put.poznan.pl	

Prerequisites

Student starting the course should have basic knowledge in microbiology, biochemistry, physiology and pathophysiology. Student should also be able to obtain information from indicated sources.

Course objective

Acquaintance with the basic groups of drugs used in pharmacotherapy of chronic diseases and emergencies. The purpose of education is to learn and understand the basic mechanisms of drug action, their pharmacological action, the therapeutic use and basic side and adverse effects. After completing the course student should have a basic knowledge of drugs and pharmacotherapy of selected diseases. The knowledge of currently used drug groups will enable students to understand the complexity of the disease pharmacotherapy process and the need to improve the technology for the development and manufacture of new therapeutic agents.

Course-related learning outcomes

Knowledge:
1. Has basic knowledge of the point of action and mechanisms of action of drugs [K_ W24]
2. Has knowledge of the correct use of drugs (knows the indications and contraindications for individual groups of drugs) [K_W25]
3. Has the general knowledge of drug metabolism and knows the basic side effects of individual groups of drugs) [K_W4]
4. Understands biochemical and molecular mechanisms of drugs action [K_W1]

Skills:
1. Has the ability to self-education in the field of supplementing knowledge about new drugs and can predict possible side effects of drugs (knows the basics of toxicology) [K_U10; K_U24]

Social competences:
1. Is prepared for professional work in the use of pharmacological knowledge and is aware of the importance of understanding the goals and effects of drugs action [K_K1]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Final test (stationary or remote form depending on the epidemiological situation).

Programme content

General pharmacology. Drugs affecting the autonomic nervous system. Antipsychotic and antidepressant drugs. Anxiolytic and sedative-hypnotic drugs. Antihypertensive drugs. Drugs for heart failure. Dermatological and ophthalmic drugs. Antibacterial agents. Antiviral agents. Antihistaminic drugs and steroids. Analgesic and anti-inflammatory drugs. Drugs used for treatment respiratory diseases (antitussive, expectorants, drugs for asthma). Drugs used in gastrointestinal dysfunction. Drugs used in diabetes. Hormonal contraception.

Course topics

Teaching methods

Multimedia presentations.

Bibliography

Basic:
1. Rafał Olszanecki, Paweł Wołkow, Jacek Jawień ; red. nauk. Ryszard Korbut. Farmakologia. Repetytorium. , Wydawnictwo Lekarskie PZWL, 2023.

Additional:
1. P. Krząścik, P. Mikołajczak Pharmacology in a nutshell , Anplan, Warszawa, 2017.
2. Ernst Mutschler [et al.]. Mutschler farmakologia i toksykologia : podręcznik, Wrocław: MedPharm Polska, 2020.

Breakdown of average student's workload

	Hours	ECTS
Total workload	55	2,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	25	1,00