

School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

PHARMACOLOGY I

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
PHARMACOLOGY I	PHA2213094	Spring Semester	2+0	2	4
Prerequisites Courses	FİZYOLOJİ				
Recommended Elective Courses	None				
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Çağlar MACİT				
Name of Lecturer(s)	Assist.Prof. Çağlar MACİT				
Assistant(s)	None				
Aim	To teach the general pharmacology, pharmacokinetics and pharmacodynamics, drug toxicity, drug abuse, pharmacogenetic, pharmacovigilance and its importance, and chemotherapeutics and their mechanisms.				
Course Content	This course contains; Introduction to pharmacology, Routes of drug administration, Absorption, Distribution, Elimination and Excretion of Drugs, Mechanisms of Drug Action, Dose-Concentration-Effect Relationship, Receptors, Drug-Receptor Relationship, Factors that change the drug effect, Pharmacodynamic and Pharmacokinetic Drug Interactions, Drug Toxicity, Pharmacogenetic, Pharmacovigilance, Chemotherapeutics, Beta-lactams, Macrolides, Lincosamide, Chloramphenicol, Tetracyclines and Aminoglycosides, Narrow-spectrum antistaphylococcal and anti-anaerobes, sulfonamides and fluoroquinolones, Antiviral drugs, Immunomodulatory drugs, antifungals, antiprotosals, anthelmintics, Antineoplastics.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1. Evaluate the basic subjects of the pharmacology			16, 9	C	
1.1. Identify the pharmacokinetics and pharmacodynamics of drugs.			16, 9	C	
1.2. Explain the functions of drugs' pharmacokinetics and pharmacodynamics.			16, 9	C	
1.3. Summarize the pharmacokinetics and pharmacodynamics of drugs.			16, 9	C	
2. Evaluate the toxicity and abuse drugs.			16, 9	C	
2.1. Define the toxicity and abuse of drugs.			16, 9	C	
2.2. Explain the mechanism of drug toxicity.			16, 9	C	
3. Explain the what pharmacogenetic is.			16, 9	C	
4. Explain the pharmacovigilance.			16, 9	C	
4.1. Know the importance of pharmacovigilance.			16, 9	C	
5. Know the chemotherapeutic drugs.			16, 9	C	
5.1. Know the subtypes of the chemotherapeutic drugs.			16, 9	C	
5.2. Know and explain the mechanism of action of the chemotherapeutic drugs.			16, 9	C	
Teaching Methods	16: Question - Answer Technique, 9: Lecture Method				
Assessment Methods	C: Multiple-Choice Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Introduction to pharmacology, Routes of drug administration	1, 2, 3			
2	Absorption, Distribution, Elimination and Excretion of Drugs, Mechanisms of Drug Action	1, 2, 3			
3	Dose-Concentration-Effect Relationship	1, 2, 3			
4	Receptors, Drug-Receptor Relationship, Factors that change the drug effect	1, 2, 3			
5	Pharmacodynamic and Pharmacokinetic Drug Interactions	1, 2, 3			
6	Drug Toxicity	1, 2, 3			
7	Pharmacogenetic	1, 2, 3			
8	Pharmacovigilance	1, 2, 3			
9	Chemotherapeutics, Beta-lactams, Macrolides	1, 2, 3			
10	Lincosamide, Chloramphenicol, Tetracyclines and Aminoglycosides	1, 2, 3			
11	Narrow-spectrum antistaphylococcal and anti-anaerobes, sulfonamides and fluoroquinolones	1, 2, 3			
12	Antiviral drugs	1, 2, 3			
13	Immunomodulatory drugs, antifungals, antiprotosals, anthelmintics	1, 2, 3			
14	Antineoplastics	1, 2, 3			
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources
1. Kayaalp, SO: Rasyonel Tedavi Yönünden Tıbbi Farmakoloji, Ankara. 2. Goodman and Gilman Farmakoloji ve Tedavi El Kitabı, Güneş Tıp Kitabevi, 2017. 3. Katzung & Trevor: Basic and Clinical Pharmacology 16th Edition. McGraw Hill Medical Books, 2023.1, 2, 3, Lecturers notes