School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

PHARMACEUTICAL CHEMISTRY IV

Syllabus

Course Description					
Name	**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
PHARMACEUTICAL CHEMISTRY IV	PHA4214873	Spring Semester	3+0	3	5

Prerequisites Courses	
Recommended Elective Courses	
Language of Instruction	English
Course Level	First Cycle (Bachelor's Degree)
Course Type	Required
Course Coordinator	Prof.Dr. Mine YARIM YÜKSEL
Name of Lecturer(s)	Prof.Dr. Mine YARIM YÜKSEL
Assistant(s)	
Aim	The aim of this course is to inform about the chemotherapeutic drugs.
Course Content	This course contains; Anticeptics and disinfectants,Sulfonamides, antimycobacterial drugs.,Quinolones,Oxazolidinones and nitro heterocyclics. ,β-Lactam antibiotics, penicillines.,Cephalosporins.,Aminoglycoside and tetracycline antibiotics.,Polypeptide and macrolide antibiotics.,Lincomycine and chloramphenicol antibiotics,Antiprotozoal drugs.,Antihelmintic drugs,Antifungal drugs. ,Antiviral drugs. ,Anticancer drugs..

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
At the end of this course, the students will be able to; 1.1. interpret the structure activity relationships of thesulfonamid antibacterials. 1.2. interpret the structure activity relationships of the antimycobacterials.1.3. interpret the structure activity relationships of the quinolone and Oxazolidinones. 1.4. interpret the structure activity relationships of the nitro heterocyclics. 1.5. illustrate the synthetic methods of the antibacterial drugs. 2. distinguish the antibiotics. 2.1. debate the structure activity relationships of the penicilline and cephalosporines. 2.2. debate the structure activity relationships of the aminoglycoside and polypeptide and macrolide antibiotics. 2.3. debate the structure activity relationships of the tetracyclines. 2.4. debate the structure activity relationships of the chloramphenicol derivatives. 2.5. illustrate the synthetic methods of the antibiotics. 3. compare antiprotozoal, antihelmintic and antifungal drugs. 3.1. discuss the structure activity relationships of the antiprotozoal drugs. 3.2. discuss the structure activity relationships of the antihelmintic drugs. 3.3. discuss the structure activity relationships of the antifungal drugs. 3.4. illustrate the synthetic methods of the antiprotozoal, antihelmintic and antifungal drugs. 4. classify the antiviral and anticancer drugs. 4.1. discuss the structure activity relationships of the antiviral drugs.4.2. discuss the structure activity relationships of anticancer drugs. 4.3. illustrate the synthetic methods of the antiviral and anticancer drugs.	19, 9	A

Teaching Methods	19: Brainstorming Technique, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	Anticeptics and disinfectants	Reading the references
2	Sulfonamides, antimycobacterial drugs.	Reading the references
3	Quinolones	Reading the references
4	Oxazolidinones and nitro heterocyclics.	Reading the references
5	β-Lactam antibiotics, penicillines.	Reading the references
6	Cephalosporins.	Reading the references
7	Aminoglycoside and tetracycline antibiotics.	Reading the references
8	Polypeptide and macrolide antibiotics.	Reading the references
9	Lincomycine and chloramphenicol antibiotics	Reading the references
10	Antiprotozoal drugs.	Reading the references
11	Antihelmintic drugs	Reading the references
12	Antifungal drugs.	Reading the references
13	Antiviral drugs.	Reading the references
14	Anticancer drugs.	Reading the references

Evaluation Methods	**Weight(%)**
Midterm Exam	40
General Exam	60

Resources
Pharmaceutical chemistry IV notes will be given to the students