School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

PHARMACEUTICAL CHEMISTRY LAB. III

Syllabus

Course Description					
Name	**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
PHARMACEUTICAL CHEMISTRY LAB. III	PHA4114865	Fall Semester	0+3	1,5	3

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 aims of this course to provide information on quantitative analysis of pharmaceutical active ingredients and to make theapplication, UV-Vis spectrophotometric methods, analyzing the IR and HPLC system.
Course Content	This course contains; General description of the quantitative analysis.,Titrimetric analysis methods.,Titrimetric analysis application,Titrimetric analysis application ,Titrimetric analysis application , Titrimetric analysis application,UV-Vis. spectrophotometric method,The quantification by the UV-Vis spectrophotometric method application,The quantification by the UV-Vis spectrophotometric method application ,IR spectrophotometric method ,Recognition of the HPLC system ,Known sample application in HPLC,known sample application in HPLC ,Unknown sample application in HPLC .

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
At the end of this course, students; 1.compare general quantitative analysis techniques of the drugs. 1.4.use HPLC in quantative analysis of the drugs. 2.will be able to analyse IR spectrophotometric methods. 2.1.describe the IR spectrophotometric methods.2.2.use the IR spectrophotometric methods 1.1. use titrimetric analysis methods of the drugs. 1.2. adapt UV-Vis. Spectrophotometric methods in quantitative analysis of the drugs. 1.3. compare chromatographic methods in quantitative analysis of the drugs	12, 14, 16, 17, 5, 9	A

Teaching Methods	12: Problem Solving Method, 14: Self Study Method, 16: Question - Answer Technique, 17: Experimental Technique, 5: Cooperative Learning, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	General description of the quantitative analysis.	Reading the references
2	Titrimetric analysis methods.	Reading the references
3	Titrimetric analysis application	Reading the references
4	Titrimetric analysis application	Reading the references
5	Titrimetric analysis application	Reading the references
6	Titrimetric analysis application	Reading the references
7	UV-Vis. spectrophotometric method	Reading the references
8	The quantification by the UV-Vis spectrophotometric method application	Reading the references
9	The quantification by the UV-Vis spectrophotometric method application	Reading the references
10	IR spectrophotometric method	Reading the references
11	Recognition of the HPLC system	Reading the references
12	Known sample application in HPLC	Reading the references
13	known sample application in HPLC	Reading the references
14	Unknown sample application in HPLC	Reading the references

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

Resources
The laboratory notes will be given to the students.