

School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

PHARMACEUTICAL BOTANY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
PHARMACEUTICAL BOTANY	PHA2213093	Spring Semester	3+0	3	4
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assist.Prof. Şule Nur KARAVUŞ				
Name of Lecturer(s)	Assist.Prof. Zeynep Büşra ERARSLAN, Assist.Prof. Şule Nur KARAVUŞ				
Assistant(s)					
Aim	To introduce the systematic classification, anatomical, histological, and morphological properties, identification, and biologically active compounds of medicinal plants.				
Course Content	This course contains; Plant cells and properties, Morphological features of plant tissues, root, stem and leaves, Morphological features of flowers, fruits and seeds, History of Pharmaceutical Botany, Systematic classification of medicinal plants, Naming and identification of plants and drugs, Flora of Turkey, herbariums, divisions of plant kingdom, Bacteriophyta, Cyanophyta, Phycophyta, Mycophyta, Bryophyta, Pteridophyta, Gymnospermae: Cycadaceae, Ginkgoaceae, Coniferae, Ephedraceae, Angiospermae: Poaceae, Liliaceae, Orchidaceae, Piperaceae, Fagaceae, Ranunculaceae, Angiospermae: Lauraceae, Papaveraceae, Brassicaceae, Rosaceae, Leguminosae, Angiospermae: Rutaceae, Malvaceae, Apiaceae, Angiospermae: Lamiaceae, Asteraceae, Solanaceae, Geographical distribution and trading of natural medicinal plants of Turkey, cultivation of medicinal plants and drug stabilization, Properties of medicinal, toxic and economically important plants.				
Course Learning Outcomes				Teaching Methods	Assessment Methods
1. Characterize plant cells and tissues.				10, 16, 9	A
1.1. Define the characteristic features of plant cells.				10, 16, 9	A
1.2. Characterize various plant tissues.				10, 16, 9	A
1.3. Recognize the characteristic features of flowers, fruits and seeds of plants.				10, 16, 9	A
2. Perform systematic classification of plant species				10, 16, 9	A
2.1. Carry-out classification of plant species.				10, 16, 9	A
2.2. Describe the naming of plant species.				10, 16, 9	A
2.3. Identify plant species.				10, 16, 9	A
3. Successfully differentiate the critical features of medicinal plants.				10, 16, 9	A
3.1. Recognize pharmaceutically important medicinal plants.				10, 16, 9	A
3.2. Recognize important plant families and their features.				10, 16, 9	A
3.3. Describe the geographical distribution and trading of medicinal plants.				10, 16, 9	A
Teaching Methods	10: Discussion Method, 16: Question - Answer Technique, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Plant cells and properties	1, 2			
2	Morphological features of plant tissues, root, stem and leaves	1,2			
3	Morphological features of flowers, fruits and seeds	1, 2			
4	History of Pharmaceutical Botany, Systematic classification of medicinal plants	1, 2			
5	Naming and identification of plants and drugs, Flora of Turkey, herbariums, divisions of plant kingdom	1, 2			
6	Bacteriophyta, Cyanophyta, Phycophyta	1, 2			
7	Mycophyta, Bryophyta, Pteridophyta	1, 2			
8	Gymnospermae: Cycadaceae, Ginkgoaceae, Coniferae, Ephedraceae	1, 2			
9	Angiospermae: Poaceae, Liliaceae, Orchidaceae, Piperaceae, Fagaceae, Ranunculaceae	1, 2			
10	Angiospermae: Lauraceae, Papaveraceae, Brassicaceae, Rosaceae, Leguminosae,	1, 2			
11	Angiospermae: Rutaceae, Malvaceae, Apiaceae	1, 2			
12	Angiospermae: Lamiaceae, Asteraceae, Solanaceae	1, 2			
13	Geographical distribution and trading of natural medicinal plants of Turkey, cultivation of medicinal plants and drug stabilization	1, 2			
14	Properties of medicinal, toxic and economically important plants	1, 2			
Evaluation Methods			Weight(%)		
Midterm Exam			40		
General Exam			60		

Resources	
1. Ders Notları	
2. Glimn-Lacy, J. and Kaufman, P.B. (2005). Botany Illustrated: introduction to plants, major groups, flowering plant families. NY: Springer, New York.	