



**CALENDAR-THEMATIC PLAN
OF PRACTICAL CLASSES**
on Pharmaceutical Botany Module 1
for higher education students of the 1st course*
specialty 226 «Pharmacy and industrial
pharmacy», specialization 226.01 Pharmacy
ΦΜ23*(4.10Д)ΑΗΓЛ 01
(autumn semester, 2023-2024 academic years)

№ з/п	Date	The topic of the lesson	Volume in hours, type of occupation	Evaluation system knowledge, marks	
				min	max
CONTENT MODULE 1. Structural functional and chemical peculiarities of plant cells. Their diagnostic features					
1.	11.09.2023	Fundamentals of botanical microtechnology. Investigation of plant cell structures that have a diagnostic value in a microscopic analysis of plant raw material: plastids, crystalline inclusions, storage products. Textbook p. 17-32.	4 pr.cl		
2.	25.09.2023	Investigation of plant cell structures having a diagnostic value in a microscopic analysis of plant material: cell wall. Textbook p. 17-32. Individual work Computer control "Plant cell" (KROK tests)	4 pr.cl.	3	5
		<i>Final test of CM 1 assimilation (Plant cell)</i>		3	5
				9	15
			Total from CM 1	15	25
CONTENT MODULE 2. Structural functional and chemical peculiarities of plant tissues. Their diagnostic features					
3.	9.10.2023	Plant tissues and their classification. The structure and location of meristematic, covering, secretory and basic tissues. Textbook p. 37-52, 54-56. Test control	4 pr.cl	3	5
4.	23.10.2023	Structure, function and location of mechanical and conductive tissues. Conductive bundles. Textbook p. 52-54, 56-61. Computer control "Plant tissues" (KROK tests)	4 pr.cl	3	5
		<i>Final test of CM 2 assimilation (Plant tissues)</i>		9	15
				15	25
			Total from CM 2:	15	25
CONTENT MODULE 3. Morphology and anatomy structure of plant vegetative organs. Their functions, taxonomy and diagnostic features					
5.	6.11.2023	Anatomy of the root. Anatomy of the stem and rhizome of grassy monocots. Textbook p. 73-79, 94-96. Test control	4 pr.cl.	3	5
6.	20.11.2023	Anatomy of the stem and rhizomes of grassy monocots. Anatomy of the arboreal plants' stem. Textbook p. 97-101. Test control	4 pr.cl.	3	5
7.	4.12.2023	Anatomy of the leaf. Textbook p. 116-121. Test control of the topic «Anatomy of plant vegetative organs» Independent educational-research work «Microscopic analysis of the axial plant organ» Computer control «Anatomy of plant vegetative organs» (KROK tests)	4 pr.cl.	3	5
				3	5
8-9.	18.12.2023 15.01.2024	Morphology of the vegetative organs (root, shoot, leaf and its parts). Textbook p. 68-72, 82-93, 104-115. Individual work Computer control «Morphology and anatomy of plant vegetative organs» (KROK tests)	8 pr.cl.	3	5
10.	22.01.2024	<i>Final test of CM 3 assimilation (Morphology and anatomy structure of plant vegetative organs)</i>	3 pr.cl.	9	15
				30	50
			Total from CM 3:	30	50
	22.01.2024	Semester credit of the module 1: "Anatomy and morphology of vegetative organs"	1 pr.cl.		
THE WHOLE AMOUNT OF HOURS FOR THE MODULE 1			40	60	100

Head of the Department of Pharmacognosy and
Nutritiology,
Professor

Viktoriia KYSLYCHENKO

WORK VOLUME OF HIGHER EDUCATION APPLICANTS IN HOURS

Summary	Credits	Lectures	Practical classes	Independent work	National scale
120	4,0	16	40	64	Credit (90 – зарах - А)

Note. Evaluation of the **current rating (CR)** of higher education applicants in **each practical classes** is carried out according to the amount of mastered material. The evaluation of **CM No. 1, No. 2, No. 3** is carried out by the sum of the current rating and control works from the modules.

Rating of the **educational component** (for the semester) by the sum of points for CM No. 1, CM No. 2, and CM No. 3.