



**CALENDAR-THEMATIC PLAN  
PRACTICAL AND SEMINAR CLASSES  
on Pharmaceutical Botany Module 1**  
for higher education students of the 1st course\*  
specialty 226 «Pharmacy, industrial pharmacy»  
ΦΜ21\*(4.10Δ)ΑΗΓΓ 01  
(autumn semester, 2021-2022 academic years)

№ з/п	Date	The topic of the lesson	Volume in hours, type of occupation	Evaluation system knowledge, marks	
				min	max
<b>Content module 1. Structural functional and chemical peculiarities of plant cells. Their diagnostic features</b>					
1.	1.09-10.09	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. <b>Textbook p. 17-32.</b>	4 pr.cl		
2.	13.09-24.09	Investigation of plant cell structures having a diagnostic value in a microscopic analysis of plant material: cell wall. <b>Textbook p. 17-32. Individual work.</b>	4 pr.cl.	3	5
		Control of content module 1 «Plant cell» Computer control «Plant cell» (KROK tests)		3 1.5	5 2.5
<b>Total CM 1:</b>				<b>7.5</b>	<b>12.5</b>
<b>Content module 2. Structural functional and chemical peculiarities of plant tissues. Their diagnostic features</b>					
3.	27.09-8.10	Plant tissues and their classification. The structure and location of meristematic, covering, secretory and basic tissues. <b>Textbook p. 37-52, 54-56. Test control</b>	4 pr.cl	3	5
4.	11.10-22.10	Structure, function and location of mechanical and conductive tissues. Conductive bundles. <b>Textbook p. 52-54, 56-61.</b>	4 pr.cl		
		Control of content module 2 «Plant tissues» Computer control «Plant tissues» (KROK tests)		3 1.5	5 2.5
<b>Total CM 2:</b>				<b>7.5</b>	<b>12.5</b>
<b>Content module 3. Morphology and anatomy structure of plant vegetative organs. Their functions, taxonomy and diagnostic features</b>					
5.	25.10-5.11	Anatomy of the root. Anatomy of the stem and rhizome of grassy monocots. <b>Textbook p. 73-79, 94-96. Test control</b>	4 pr.cl.	3	5
6.	8.11-19.11	Anatomy of the stem and rhizomes of grassy monocots. Anatomy of the arboreal plants' stem. <b>Textbook p. 97-101. Test control</b>	4 pr.cl.	3	5
7.	22.11-3.12	Anatomy of the leaf. <b>Textbook p. 116-121.</b> <b>Test control of the topic «Anatomy of plant vegetative organs»</b> <b>Independent educational-research work «Microscopic analysis of the axial plant organ»</b> <b>Computer control «Anatomy of plant vegetative organs» (KROK tests)</b>	4 pr.cl.	3	5
				3 1.5	5 2.5
8.	6.12-17.12	Morphology of the vegetative organs (root, shoot, leaf and its parts). <b>Textbook p. 68-72, 82-93, 104-115.</b>	4 pr.cl.	3	5
		Control of content module 3 «Morphology and anatomy structure of plant vegetative organs» Computer control «Morphology and anatomy of plant vegetative organs» (KROK tests)		3 1.5	5 2.5
<b>Total CM 3:</b>				<b>21</b>	<b>35</b>
9-10.	20.12-28.01	Final test of Module 1 «Anatomy and morphology of plant vegetative organs»		24	40
<b>Summary</b>				<b>60</b>	<b>100</b>

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Olga MALA