

**Thematic plan of seminar-type classes
for in discipline «Pharmacognosy»
for students of 2022 year of admission
under the educational programme
33.05.01 Pharmacy,
Specialist's degree,
form of study full-time
for the 2025-2026 academic year**

№	Thematic blocks	Hours (academic) ³
5 semester		
1.	Fundamentals of pharmacognostic analysis of medicinal plant raw materials (part 1). ¹ Objectives, tasks of the discipline. Basic concepts. Safety instructions. Morphological groups of medicinal plant raw materials, methods of their analysis. ²	4
2.	Fundamentals of pharmacognostic analysis of medicinal plant materials (part 2). ¹ Morphological groups of medicinal plant raw materials, methods of their analysis. ²	4
3.	Fundamentals of pharmacognostic analysis of medicinal plant materials (part 3). ¹ Methods of pharmacognostic analysis of medicinal plant materials. ²	4
4.	Fundamentals of pharmacognostic analysis of medicinal plant materials (part 4). ¹ Methods of pharmacognostic analysis of medicinal plant materials. ²	4
5.	Fundamentals of pharmacognostic analysis of medicinal plant materials (part 5). ¹ Methods of pharmacognostic analysis of medicinal plant materials. ²	4
6.	Fundamentals of pharmacognostic analysis of medicinal plant materials (part 6). ¹ Methods of pharmacognostic analysis of medicinal plant materials. ²	4
7.	Control of knowledge, skills, abilities according to modular unit 1. ¹	4
8.	Fats and fat-like substances. ¹ Definition, classification, methods of isolation and analysis. Medicinal plant materials containing fats. ²	4
9.	Vitamins (part 1). ¹ Definition, classification, methods of isolation and analysis. Medicinal plant material containing vitamins. ²	4
10.	Vitamins (part 2). ¹ Medicinal plant material containing vitamins. ²	4
11.	Polysaccharides (part 1). ¹ Definition, classification, methods of isolation and analysis. Medicinal plant material containing polysaccharides. ²	4
12.	Polysaccharides (part 2). ¹ Medicinal plant material containing polysaccharides. ²	4
13.	Control of knowledge, skills, abilities according to modular unit 2 (part 1). ¹	4
14.	Essential oils (part 1). ¹ Analysis of essential oils. ²	4

15.	Essential oils (part 2). ¹ Medicinal plant material containing essential oils. ²	4
16.	Essential oils (part 3). ¹ Medicinal plant material containing essential oils. ²	4
17.	Essential oils (part 4). ¹ Medicinal plant material containing essential oils. ²	4
18.	Essential oils (part 5). ¹ Medicinal plant material containing essential oils. ²	4
19.	Control of knowledge, skills, abilities according to modular unit 2 (part 2). ¹	4
6 semester		
20.	Alkaloids (part 1). ¹ Definition, classification, methods of isolation and analysis. ²	2
21.	Alkaloids (part 2). ¹ Medicinal plant material containing alkaloids. ²	2
22.	Alkaloids (part 3). ¹ Medicinal plant material containing alkaloids. ²	2
23.	Alkaloids (part 4). ¹ Medicinal plant material containing alkaloids. ²	2
24.	Alkaloids (part 5). ¹ Medicinal plant material containing alkaloids. ²	2
25.	Control of knowledge, skills, abilities according to modular unit 2 (part 3). ¹	2
26.	Glycosides (part 1). ¹ Iridoids, definition, classification, methods of isolation and analysis. Medicinal plant material containing iridoids. ²	2
27.	Glycosides (part 2). ¹ Cardiac glycosides, definition, classification, methods of isolation and analysis. Medicinal plant material containing cardiac glycosides. ²	2
28.	Glycosides (part 3). ¹ Phytochemical analysis of medicinal plant materials containing iridoids and cardiac glycosides. ²	2
29.	Glycosides (part 4). ¹ Saponins, definition, classification, methods of isolation and analysis. Medicinal plant material containing saponins. ²	2
30.	Glycosides (part 5). ¹ Phytochemical analysis of medicinal plant materials containing saponins. ²	2
31.	Control of knowledge, skills, abilities according to modular unit 2 (part 4). ¹	2
32.	Simple phenols. Anthracene derivatives (part 1). ¹ Definition, classification, methods of isolation and analysis phenolic glycosides. Medicinal plant material containing phenolic glycosides. ²	2
33.	Simple phenols. Anthracene derivatives (part 2). ¹ Phytochemical analysis of medicinal plant materials containing anthracene derivatives. ²	2
34.	Simple phenols. Anthracene derivatives (part 3). ¹ Medicinal plant material containing anthracene derivatives. ²	2
35.	Simple phenols. Anthracene derivatives (part 4). ¹ Medicinal plant material containing anthracene derivatives. ²	2
36.	Simple phenols. Anthracene derivatives (part 5). ¹ Medicinal plant material containing anthracene derivatives. ²	2
37.	Control of knowledge, skills, abilities according to modular unit 2 (part 5). ¹	2
7 semester		
38.	Flavonoids (part 1). ¹ Definition, classification, methods of isolation and analysis. ²	2
39.	Flavonoids (part 2). ¹ Medicinal plant material containing flavonoids. ²	2
40.	Flavonoids (part 3). ¹ Medicinal plant material containing flavonoids. ²	2
41.	Flavonoids (part 4). ¹ Medicinal plant material containing flavonoids. ²	2

42.	Flavonoids (part 5). ¹ Medicinal plant material containing flavonoids. ²	2
43.	Control of knowledge, skills, abilities according to modular unit 2 (part 6). ¹	2
44.	Coumarins. ¹ Definition, classification, methods of isolation and analysis. Medicinal plant material containing coumarins. ²	2
45.	Chromones and lignans. ¹ Definition, classification, methods of isolation and analysis. Medicinal plant material containing chromones and lignans. ²	2
46.	Tannins (part 1). ¹ Definition, classification, methods of isolation and analysis. Medicinal plant material containing tannins. ²	2
47.	Tannins (part 2). ¹ Medicinal plant material containing tannins. ²	2
48.	Tannins (part 3). Phytochemical analysis of medicinal plant materials containing tannin. ²	2
49.	Control of knowledge, skills, abilities according to modular unit 2 (part 7). ¹	2
50.	Resource Science. ¹ Objectives, tasks, main methods of resource science. ²	2
51.	Resource Science. ¹ Assessment of medicinal plant raw materials reserves. Problem solving. ²	2
52.	Control of knowledge, skills, abilities according to modular unit 2 (part 8). ¹	2
53.	Assessment of theoretical knowledge on the material of discipline ¹	2
54.	Assessment of skills, practical abilities on the material of discipline ¹	2
	Total	146

¹ – topic

² – essential content

³ – one thematic block includes several classes, the duration of one class is 45 minutes, with a break between classes of at least 5 minutes

Considered at the department meeting of Pharmaceutical, Toxicological Chemistry, Pharmacognosy and Botany, protocol of «30» May 2025. № 10.

Head of the Department



A.A. Ozerov.