

**Thematic lesson plan of lectures
in the discipline "Special pharmaceutical chemistry"
for students for students in 2022 admission
according to the educational program
specialist degree
in the specialty of training 33.05.01 Pharmacy
direction (profile) Pharmacy,
form of study full-time (face to face)
for the 2024-2025 academic year**

№	Lecture-type class topics	Hours (academic)
7th semester		
1.	Alkaloids. ¹ Classification. General methods of isolation, purification and separation of alkaloids. Pharmaceutical analysis. Pyridine and piperidine derivatives. ²	2
2.	Derivatives of tropane. ¹ Classification. Natural tropane alkaloids and their synthetic analogues. ²	2
3.	Phenanthrenisoquinoline derivatives. ¹ Natural alkaloids and their synthetic analogues. Action analogues. ²	2
8th semester		
1.	Purine derivatives. ¹ Natural alkaloids and their synthetic analogues. Action analogues. ²	2
2.	Hydroxyphenylalkylamines. ¹ Hormones of the adrenal medulla and their synthetic analogues. ²	2
3.	Progestogens and their synthetic analogues. Estrogens. ¹ Synthetic analogues of estrogens of nonsteroidal structure. ²	2
9th semester		
1.	Chemical classification of antibiotics. The current state of antibiotic science. ¹ Penicillins. ²	2
2.	Aminoglycosides. ¹ Preparation methods and pharmaceutical analysis. ²	2
3.	Antitumor antibiotics. ¹ Preparation methods and pharmaceutical analysis. ²	2
	Total	18

¹ - topic

² - essential content

Considered at the meeting of the department of Pharmaceutical, Toxicological Chemistry, pharmacognosy and botany "30" May 2025, protocol No1

Head of the Department



Ozerov A.A.