

AMENDMENTS AND CHANGES TO THE CURRICULUM IN THE EDUCATIONAL DISCIPLINE
«TOXICOLOGICAL CHEMISTRY»

for the specialty 1-79 01 08 “Pharmacy”

2020/2021 academic year

Amendments and changes	Basis/Reason
1. Changes have been introduced into the thematic plan and educational discipline curricular chart	Educational Plan for 2020/2021 academic year
2. The literature has been updated according to «The list of literature recommended for 2020-2021 academic year» (Appendix 1)	Meetings of Scientific-methodological council 29.05.2020, protocol No 9

The curriculum is revised and approved at the department meeting
pharmaceutical chemistry (protocol # 14 of 24.06.2020)

Head of the department
Pharmaceutical Chemistry
PhD, Associate professor



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THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	practical
8 semester		
1. The general questions of toxicological chemistry	4	9
1.1. The goals and objectives of the discipline «Toxicological chemistry	1	3
1.2. Organization of medical forensics in the Republic of Belarus. Introduction to narcology and clinical toxicology	1	3
1.3. Classification of toxic substances	1	3
1.4. Chemical toxicology analysis methodology	1	
2. Fundamentals of biochemical toxicology	4	3
2.1. The intake and distribution of toxic substances in the human body	1	1
2.2. Biotransformation of foreign compounds in the body. The main ways of biotransformation	2	1
2.3. Metabolites and toxicity. Isolation of foreign compounds and their metabolites from the human body	1	1
3. Analytical toxicology of the main groups of xenobiotics	30	102
3.1. Substances isolated from biological material by mineralization	6	21
3.2. «Flying» poisons	6	18
3.3. Substances defined directly in biological material	2	3
9 semester		
3.4. Modern physicochemical methods used in chemical toxicological analysis	6	9
3.5. Substances isolated from biological material by water extraction	1	3
3.6. Substances requiring private isolation methods	1	3
3.7. Substances isolated from biological material by polar solvents	6	42
3.8. Substances isolated from biological material by non-polar solvents (pesticides)	2	3
Total hours	38	111

List of academic discipline literature recommended
for 2020-2021 academic year
«Toxicological Chemistry»

Basic (relevant):

1. Toxicological chemistry : lecture course / S.A.Karpushina, V.S.Bondar, I.O.Zhuravel. – 2 ed. – Kharkiv : NUPh : Golden Pages, 2011. – 208 p.

Additional:

2. Chernykh V.P., Shemchuk L.A. Organic chemistry. Basic lecture course: The study guide for students of higher schools / Edited by V.P.Chernykh. – 4 ed., rev. and enl. – Kharkiv: NUPh, Original, 2011. – 440 p.

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