



Department of **Pharmaceutical and toxicological chemistry**  
**09.3.1-08**  
**Thematic and calendar plans of the lectures and laboratory lessons (seminars)**

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*Approved at the department meeting  
of 29.08.2024, minutes nr. 1,  
Head of Department of Pharmaceutical and  
toxicological chemistry*

*Dr.habilitated in pharm., professor,*

 **Vladimir Valica**

**Calendar Plan**  
**of the lectures at the discipline «Analytical toxicology»,**  
**IV<sup>th</sup> year, VII<sup>th</sup> semester, 2024-2025 academic year**

<i>Nr.</i>	<i>Date</i>	<i>Hours</i>	<i>Theme</i>
1.	02-06.09.2024	2	Analytical toxicology subject. Organization of chemical-toxicological expertise of Moldova. Laws of toxicodynamics and toxicokinetics . Biochemical and toxicological chemistry .
2-3.	09-20.09.2024	4	Toxic's Characteristic which are separated from biological material with polar solvent. Chemical and toxicological analysis of barbituric acid derivative.
4.	23-27.09.2024	2	Chemical and toxicological analysis of purine derivatives, pyrazolone, salicylic acid its derivatives. Chemical-toxicological analysis of cannabis.
5	30.09-04.10.2024	2	Chemical and toxicological characteristic of 1,4 - benzodiazepine's derivatives.
6-8.	07-25.10.2024	6	Chemical and toxicological analysis of chemical substances that are extracted with polar solvents (chloroform extract in a basic environment
9.	28.10 -01.11.2024	2	Chemical and toxicological characteristic of volatile compounds. The application of drive steam method for the isolation of the volatile compounds from biological material.
10-11.	04-15.11.2024	4	The analysis of the volatile compounds in the distillate. The diagnosis of the alcoholic coma.
12.	18-22.11.2024	2	Gas chromatography method application in chemical toxicological analyse.
13-14.	25.11-06.12.2024	4	Chemical and toxicological research of "Metal" Toxics which are separated by mineralization. Fractional analysis. Chemical and toxicological analysis of mercury.
15.	09-13.12.2024	2	Pesticide's chemical and toxicological analysis . Isolation of toxic by soaking with water and then dialyse (acids, bases, salts ). Chemical and toxicological analysis of carbon monoxide in the poisoned blood.

Associate professor



**Tamara Cotelea**



Department of **Pharmaceutical and toxicological chemistry**  
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**Calendar Plan**  
**of the laboratory lessons at the discipline «Analytical toxicology»,**  
**IV<sup>th</sup> year, VII<sup>th</sup> semester, 2024-2025 academic year**

<i>Nr.</i>	<i>Date</i>	<i>Hours</i>	<i>Theme</i>
1.	02-06.09.2024	3	Analytical toxicology subject. Biochemical and toxicological chemistry – part of analytical toxicology. Toxicodynamics and toxicokinetics.
2-3.	09-20.09.2024	6	Acid, neutral and weakly basic toxic's research that are separated from the biological material with polar solvent.
4.	23-27.09.2024	3	Chemical and toxicological investigation of compounds that cause addiction ( toxicomania).
5.	30.09- 04.10.2024	3	Chemical and toxicological research of basic toxics , isolated with polar solvents.
6-7.	07-18.10.2024	6	Toxic's chemical and toxicological expertise which are separated with polar solvent. Support expertise bulletin. <i>Control assessment.</i>
8.	21-25.10.2024	3	Chemical and toxicological characteristics of volatile compounds which are separated from biological material by steam stripping. The study of the identification reactions, applied in chemical and toxicological analysis. Chemical and toxicological expertise of volatile toxics from biological material.
9.	28.10- 01.11.2024	3	Gas chromatography method application in chemical and toxicological investigations on volatile toxics. The determination of ethylic alcohol in biological fluids by gas-chromatographic method. The diagnosis of alcoholic coma. Bulletin support of volatile toxic's chemico-toxicological expertise.
10.	04-08.11.2024	3	Volatile toxic's metabolism. Toxicokinetics, toxicodynamics. <i>Control assessment.</i>
11-12.	11-22.11.2024	6	Toxic characteristics that are separated by mineralization from the biological material. The stages of mineralization. The research of mineralization and precipitate by fractional method. Chemical and toxicological analysis of mercury.
13.	25-29.11.2024	3	Bulletin support of metal toxic's chemico-toxicological expertise. <i>Control assessment.</i>
14-15.	02-13.12.2024	6	Pesticide's chemical and toxicological investigation in biological material. Practical skills certification.

  
Associate professor

**Tamara Cotelea**