UNIVERSITY OF NOVI SAD
FACULTY OF MEDICINE

Study program: Integrated Academic Studies in Pharmacy

Course title: Basics of Toxicology

Teacher: Velibor M. Vasović, Branislava U. Srđenović Čonić

Course status: compulsory

ECTS Credits: 3

Condition: -

Course aim

The basic toxicology course is intended to provide students basic understanding of fundamental principals of toxicology, organ-specific toxicity, as well as legislation concerning manufacture, transportation, disposal and decontamination of chemicals/poisons.

Expected outcome of the course:

Students will gain knowledge of the basic principles of exposure to toxicants, toxicity mechanisms, toxicokinetics and toxodynamics, organ-specific toxic effects, as well as prevention and treatment of poisoning. Students will be able to link hazard, risk assessment and safety of poisons (chemicals)/poisoning in context of human health and environment and recognize labels of chemical classification and procedures of safe handling.

Course description

Theoretical education

1. Introduction to toxicology, classification of toxic agents, characteristics of exposure, methods for toxicity tests
2. Mechanisms of toxicity
3. Absorption, distribution, metabolism and excretion of toxicants
4. Toxicokinetics
5. Genetic toxicology and chemical carcinogenesis
6. Toxic responses of the nervous system
7. Toxic responses of the heart and vascular systems
8. Toxic responses of the kidney
9. Toxic responses of the liver
10. Toxic responses of the reproductive system
11. Toxic responses of the respiratory system
12. Toxic responses of the skin
13. Diagnosis and evaluation of poisoning, cardiopulmonary resuscitation of acutely intoxicated patients
14. Prevention of further poison absorption
15. Enhancement of poison elimination, antidotal therapy, symptomatic therapy
16. The most common medication poisonings
17. Chemicals management, the classification, labelling and packaging of chemical substances

Practical education

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Literature

Compulsory

1. Klaassen CD. Casarett & Doull's Toxicology: The Basic Science of Poisons, 6th ed. US: McGraw-Hill; 2001.

Additional

1. True BL, Dreisbach RH. Dreisbach's Handbook of Poisoning: Prevention, Diagnosis and Treatment. 13th ed. New York: Taylor & Francis; 2001.

Number of active classes	**Theoretical classes:** 45	**Practical classes:** 0

Teaching methods Lectures. Writing seminar papers through searching available literature and electronic databases.

Student activity assessment (maximally 100 points)

Pre-exam activities	**Points**	**Final exam**	**Points**
Lectures	10	Written	
Practices		Oral	70
Colloquium		.....	
Essay	20		