COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Pharmacy

Course ID:	**Course title:**
FaF.KFT/16-Mgr-A/22	Toxicology

Educational activities:
Type of activities: lecture / seminar
Number of hours:
per week: 1 / 1 **per level/semester:** 14 / 14
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 7.

Educational level: I.II.

Prerequisites:

Course requirements:
Compulsory attendance at lectures - at least 80%.
During the semester, students take 2 tests with a required minimum success rate 60%. Upon successful completion of the interim tests, the student can register for the final (exam) test, which will take place by computer or in writing form.
Final test evaluation: A 91-100%, B 81-90%, C71-80%, D 66-70%, E 60-65%, FX <60%

Learning outcomes:
Toxicology is the study of the toxic effects of xenobiotics on a living organism. Knowledge of toxicology is essential for the preparation of pharmacists for clinical practice, whether for work in a pharmacy, at the department of clinical pharmacology and pharmacy, toxicology center, or in national or supranational regulatory authority agencies. The graduate of the course will be acquainted with the safety of the most common xenobiotics, including drugs, and the management of their possible toxic effects, as well as with the methodology and requirements for preclinical and clinical safety of drugs and assessment of their environmental risks.

Class syllabus:
After the general introduction, the course will address the basic toxicological principles, including toxicokinetics and toxicodynamics, teratogenicity, genotoxicity and carcinogenicity of xenobiotics. Subsequently, systemic and organ toxicity will be discussed, especially at the level of the liver, kidneys, respiratory system, nervous system and immune system. Within clinical toxicology, the student will get acquainted with the most common noxa, the way and manner of exposure to them, as well as the management of intoxication. Another important point of the study will be the regulatory aspects of drug safety assessment, including rules of good laboratory practice, clinical trial directives, safety with respect to selected population groups and specific products, as well as post-marketing drug safety assessment or environmental risk assessment. The study focuses on theoretical knowledge as well as practical experience in the analysis of the toxic effect of xenobiotics and in the assessment of drug safety.

Recommended literature:
Mulder G.J. Pharmaceutical toxicology. Pharmaceutical Press 2006

Carson R.H.: The toxicology handbook for clinicians. Mosby Elsevier, Philadelphia, 2006
Hodgson E.: A textbook of modern toxicology, Wiley, 2010
Friedman L.M. et al.: Fundamentals of Clinical Trials, Springer 2015
Galin J.I. & Ognibene F.P.: Principles and Practice of Clinical Research, Academic Press 2007
Presentation from lectures and seminars of the course.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

A	ABS	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Ondrej Sprušanský, PhD., Mgr. Lenka Bies Piváčková, PhD., doc. PharmDr. Marek Máťuš, PhD., PharmDr. Dominika Dingová, PhD., Mgr. Peter Vavrinec, PhD., doc. PharmDr. Anna Paul Hrabovská, PhD., PharmDr. Zuzana Kiliánová, PhD.

Last change: 29.03.2022

Approved by: prof. PharmDr. Ján Klimas, PhD., MPH