F A C U L T Y O F P H A R M A C Y
MEDICAL UNIVERSITY-SOFIA
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DEAN:

(Prof. Alexander Zlatkov, DSc)

Department of Pharmacology, Pharmacotherapy and Toxicology

SYLLABUS
"TOXICOLOGY"
Semester: VI

INCLUDED IN **"PHARMACY"** EDUCATIONAL CURRICULUM
EDUCATIONAL DEGREE: **"MASTER"**
CREDITS (ECTS) = **7**

Horarium:
Lectures: 30 hours
Practicals: 60 hours

ANNOTATION

Toxicology is a basic and applied science, and an independent medical specialty that studies and evaluates the toxic effects of active substances of natural and synthetic origin, including drugs, the mechanisms of toxic action at the molecular, cellular, tissue, organ and organism levels leading to adverse reactions and toxic damage. In particular, drug toxicology assesses the safe use throughout the life cycle of drugs - from their creation as molecules (preclinical trials), into the clinical trial phases and into post-marketing safety studies.

When starting the Toxicology course, the pharmacy student should have a basic knowledge of the medico-biological and pharmaceutical disciplines.
The course in Toxicology includes general and special toxicology.
Based on the information and knowledge acquired in the field of drug toxicology, the future Master Pharmacist will be able to participate more effectively in the process of optimization, individualization and safety of drug therapy, drug interactions, and in the prevention of drug abuse.
Current control and assessment system: current control, two seminars, colloquium and final examination at the end of the academic year (written and oral).

English language training

SYLLABUS

LECTURES

1. Modern principles and methods in toxicology.
2. Toxicokinetics.
3. Toxicodynamics.
4. Biotransformation (hepatic and extrahepatic).
5. Factors influencing toxicity.
6. Adverse drug reactions - classification and monitoring.
7. Toxicological aspects of drug interactions.
8. Organ and systemic drug toxicity - Part I.
9. Organ and systemic drug toxicity - Part II.
10. Basic principles and approaches in the treatment of acute intoxications. Antidotes.
11. Special toxicology - Part I.
12. Special toxicology - Part II.
13. Drug abuse. Toxicomania.
14. Intoxication with non-pharmaceutical drugs.
15. Toxins of natural origin.

PRACTICALS

1. Quantitative assessment of toxic response.
2. Classification of toxic substances and effects.
3. Factors influencing toxicity. Toxicological health risk assessment.
4. Adverse drug reactions (ADRs) during pregnancy and lactation.
5. ADRs of different pharmacological groups of drugs.
6. Drug interactions.
7. **Seminar** - Adverse drug reactions and drug interactions.
8. Drug-induced organ and system damage - Part I.
9. Drug-induced damage to organs and systems - Part II.
10. Acute intoxications. Antidotes.
11. **Colloquium**.
12. Characterization of major groups of psychoactive substances. Alcohol and drugs.
13. **Seminar** - Toxicomania.
14. Toxic effects of various environmental factors (heavy metals, pesticides, etc.). Toxicity of excipients.
15. Toxins of natural origin.

Date: 29.09.2021

Program author:.....
Prof. Virginia Tzankova, PhD

Head of the Department:.....
Prof. Georgi Momekov, DSc