Study Programme: Master academic studies of forensics

**Course Unit Title:** Forensic Toxicology

**Course Unit Code:** FH-15

Name of Lecturer(s): Full Professor Đenđi Vaštag

Type and Level of Studies: Master Academic Degree

Course Status (compulsory/elective): elective

Semester (winter/summer): Summer

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): Face-to-face

Number of ECTS Allocated: 6

# **Prerequisites:** None

## **Course Aims:**

Understanding basic forensic principles, acting and eliminating poison from the body, sampling and applying advanced analytical methods and techniques for their forensic analysis.

#### Learning Outcomes:

After the successful completion of this course, the student is able to:

1. list poisons and toxic substances;

2. demonstrate the acquired knowledge and understanding of the principles of forensic toxicology during the independently selecting the most appropriate analytical technique and the method for analyzing the concrete sample;

3. properly handle the instruments for the toxicological analysis of the selected samples;

4. reliably, precisely and accurately measure during the selected toxicological analyzes and interprets the obtained experimental results and writes reports on the analysis made.

### Syllabus:

Theory

Analytical and Forensic Toxicology. The poisons. Sampling and Samples in Toxicology. Lipophilicity and hydrophilicity of poison. Absorption and elimination of poisons from the body. Poison gases. Inorganic poisons - metals and non-metals, anions. Drugs and drug addiction. War poisons. Other poisons (venoms, plants, bacteria). Legislation in the field of toxicology. Disposal of hazardous substances, medicines and poisons.

Practice

Practical classes follow theoretical lessons. Solving certain problems in the field of toxicology using adequate instrumental techniques.

### **Required Reading:**

- 1. Clarke's Analytical Forensic Toxicology, Pharmaceutical Press (2008)
- 2. Introduction to forensic science, W. Eckert, 2nd edition, CRC Press (2000)
- 3. A textbook of modern toxicology, E. Hodgson, 3rd edition, Willey Interscience (2004) selected chapters
- 4. Scripts and notes from lectures

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Weekly Contact Hours	: 75	Lectures: 30	Practical work: 30	<b>Other forms of teaching:</b> 15
Teaching Methods:				
Lectures, laboratory exercises and consultations.				
Knowledge Assessment (maximum of 100 points): 100				
Pre-exam obligations	point	S	Final exam	points
Active class	10	written exam	20	
participation	10			
Practical work	30		oral exam	10
Seminar(s)	30			