

Level: Master academic studies of chemistry; Master academic studies of biochemistry; Master academic studies of molecular biology				
Course title: Forensic Chemistry (IHA-510)				
Status: Elective				
ECTS: 6				
Requirements: None				
Learning objectives <ul style="list-style-type: none"> • Gaining knowledge on applications of analytical chemistry in contemporary forensic research within legal regulations. • Enabling students to apply analytical methods and techniques during forensic analyses. • Gaining knowledge on methods and procedures for collecting and analysis of evidence. • Developing critical and ethical attitude to reliability and quality of forensic analyses. 				
Learning outcomes <i>Students should be able to:</i> <ul style="list-style-type: none"> • demonstrate knowledge on forensic evidence; • list and explain analytical methods, which are used in forensic analysis of drugs, alcohol, DNA, blood, fingerprints, glass, fibres, ink, explosives and flammable substances; • independently choose, modify and apply analytical methods in forensic investigations; • precisely analyse, interpreted and present results in the form of the official report (expertise); • competently communicate with experts from legal institutions (police, criminology centres, court of justice, medical institutions etc.). 				
Syllabus <i>Theoretical instructions</i> Topics include: evidence and the crime scene; the presentation of forensic evidence; document examination; fires, explosions and firearms; illicit drugs, alcohol and forensic toxicology; body fluids; DNA analysis; forensic pathology; inorganic forensic materials – glass, soil, gunshot residues. Fibers. Colours. Fingerprints and footprints. Project work, which is undertaken by all students, focuses on the solution of real world problems. <i>Practical instructions</i> Chemical and instrumental analysis of the drugs (HPLC, GC, IR-FTIR). Ink analysis (TLC). Fiber and textile analysis. Fingerprints and footprints. Explosives and arson analysis. DNA analysis.				
Weekly teaching load				Other:
Lectures: 2	Exercises: 2	Other forms of teaching: 1	Student research: /	