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| **Study Programme:** Master academic studies of forensics | |
| **Course Unit Title:** Quality Standards in Forensic Laboratories | |
| **Course Unit Code:** FH-12 | |
| **Name of Lecturer(s):** Associate Professor Sanja Belić | |
| **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:**
It enables students to acquire necessary theoretical and practical knowledge about the legal regulations related to forensic laboratory and forensic testing, as well as the principles necessary for the setting quality system for forensic laboratories.

**Learning Outcomes:**
After a successful competition of the course, the student will be able to: apply knowledge about the principles and methods that ensure the quality of the modern forensic laboratory; demonstrates the procedures of good forensic practice from sampling of the traces from the site to the presenting the results in court; independently select the equipment and modify and apply analytical methods for forensic testing in accordance with the QA/QC program, as well as with the FDA, EPA and ISO guidelines; fully and independently participate in the processes of internal quality control within the forensic laboratory, inter-laboratory comparisons, estimate the expertise of the staff and auditing.

**Syllabus:**
Legislation, national and international regulations related to forensic laboratory and forensic testing. Introduction to quality control of forensic laboratories through the appropriate program (QA / QC), with a focus on FDA, EPA and ISO guidelines. Regulations on quality control related to: staff, equipment, sampling, analytical procedures, archiving, storage of forensic materials and presenting results in court. Internal QC within the forensic laboratory, inter-laboratory comparisons, staffing and auditing. Specific examples of laboratory QC and procedures in specific areas - processing, analysis and discussion on specific topics.

**Required Reading:**
1. P. Bievre, H. Günzler: Validation in chemical measurements, Springer Science+Business+Media, 2010.
2. Staff skill requirements and equipment recommendations for forensic science laboratories, Laboratory and scientific section, United Nations Office on Drugs and Crime, Vienna. United Nations, New York, 2011.
3. Guidance for the Validation of Analytical Methodology and Calibration of Equipment Used for Testing of Illicit Drugs in Seized Materials and Biological Specimens: A Commitment to Quality and Continuous Improvement, United Nations Office on Drugs and Crime, Vienna. United Nations, New York, 2009.
4. Glossary of Terms for Quality Assurance and Good Laboratory Practices: A Commitment to Quality and Continuous Improvement, United Nations Office on Drugs and Crime, Vienna. United Nations, New York, 2010.

**Additional Literature:**
1. S. Belić, lecture material
2. Electronic databases

| **Weekly Contact Hours:** 75 | **Lectures:** 45 | **Practical work:** 30 |
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**Teaching Methods:**
Lectures, auditory exercises and consultations.

**Knowledge Assessment:**

| Pre-exam obligations | points | Final exam | points |
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| Active class participation | 10 | written exam | 35 |
| Practical work | 20 | oral exam | 35 |