Level: bachelor

Course title: QUALITY MANAGEMENT IN ANALYTICAL LABORATORIES

Status: obligatory

ECTS: 6

Requirements: does not have

Learning objectives

It provides students the necessary theoretical and above all practical knowledge, on the statistical processing of the measurement results and their correct interpretation. Familiarization with quality standards and procedures for their implementation in the real sense. Mastering procedures for validation and verification of analytical methods as well as their application in an analytical laboratory. Students will be informed on the correct method of keeping records on the quality of the measurement and the results of the analyzes performed.

Learning outcomes

After the successful completion of this course, students will be able to understand the necessity of introducing a quality system in an analytical laboratory as well as the justification of conducting quality analytical measurements. They will be trained to carry out practically the validation and verification procedures of different analytical methods. They will be able to write the report in a proper way and keep the documentation of the quality of the analysis done in their laboratory.

Syllabus

Theoretical instruction

Standards and legal regulations for quality management of laboratories and analytical measurement. Quality control of analytical measurements, statistical processing of obtained results and their interpretation. Validation and verification of analytical methods. Procedure for implementation and introduction in an analytical laboratory. Inter-laboratory testing and method revalidation.

Practical instruction

Checking and evaluating the quality of the analytical measurement performed. Validation of a selected analytical method, statistical calculations related to it and the writing of the final report. Application of different software solutions for calculations.

| Weekly teaching load | | | | Other: |
|----------------------|------------|----------------|-------------------|--------|
| Lectures: | Exercises: | Other forms of | Student research: | 0 |
| 3 | 2 | teaching: 0 | 0 | |