

Level: bachelor				
Course title: Chemical Analysis of Materials				
Status: elective				
ECTS: 7				
Requirements: none				
Learning objectives				
<ul style="list-style-type: none"> -To provide the students with necessary theoretical and practical knowledge of key aspects of quality control of various materials; - To develop the skills for successful performance of the selected analyses of various materials; - To provide the basis for successful inclusion of graduate students into chemical laboratories of different types. 				
Learning outcomes				
<p>On completion the course, students should be able to define the basic principles of quality assessment and control through application of international and national law regulations, understand the essential meaning of standardization, certification and accreditation; define the principles of quality control of certain materials in a certain branch of industry or production, name and describe the most important methods of analysis in an industry, successfully perform the standard methods of analysis of selected materials, develop skills of using the equipments safely, calculate the results of performed analyses and present them in the graphical and statistical ways.</p>				
Syllabus				
<i>Theoretical instruction</i>				
<p>Selected contents from the fields of international and national law regulations in the domain of quality control (standardization, accreditation, certification, etc.). Principles of control in the production processes. Principles and methods of sampling. Selected methods of analyses of water, air, and gases. Standard methods of quality control of raw materials and products in various industries (pharmaceutical, cosmetics, metallurgical, food, base chemical, polymer, etc.).</p>				
<i>Practical instruction</i>				
Laboratory practice is based on representative analyses of selected materials.				
Weekly teaching load				Other:
Lectures: 2	Exercises: 4	Other forms of teaching:	Student research:	