УНИВЕРЗИТЕТ У БАЊОЈ ЛУЦИ
UNIVERSITY OF BANJA LUKA
ПРИРОДНО-МАТЕМАТИЧКИ ФАКУЛТЕТ
FACULTY OF NATURAL SCIENCES AND MATHEMATICS

CHEMISTRY DEPARTMENT | FIRST CYCLE OF STUDY | Chemistry/Chemistry Education

Course name	Analytical Chemistry 2			
Course code	**Course status**	**Semester**	**Hours of instruction**	**ECTS**
1C16HOS413	required	III	3+4	7
Teacher(s)	**Assist. prof. Dragana Blagojević PhD**			

Prerequisite course(s)	**Entry requirements**
Stoichiometry, Analytical Chemistry 1	Passed exams

Course goals

The aim of the course Analytical Chemistry 2 is to get acquainted with the theoretical and practical foundations of quantitative chemical analysis.

Learning outcomes

The student knows the principles of classical methods of analysis. He applies the acquired theoretical and practical knowledge, independently chooses the method and performs chemical analysis of the sample with appropriate precision and accuracy.

Course content

Quantitative chemical analysis, division of quantitative methods of analysis. Sample preparation for analysis. Principles of gravimetric methods of analysis. Precipitation and particle size of precipitate. Colloidal and crystalline precipitates. Operations in gravimetric analysis. Examples of gravimetric determinations. Principles of volumetric methods of analysis. Neutralization methods and their application. Sedimentation methods and their application.
Complexometric methods and their application. Redox methods and their application.
Experimental exercises: Individual gravimetric and volumetric determinations.

Teaching methods

Lectures and laboratory exercises

Books and other learning materials

J. Savić, M. Savić: Fundamentals of Analytical Chemistry, Svjetlost, Sarajevo, 1989,
M.B. Rajković: Introduction to analytical chemistry - classical basics, Pergament, Belgrade, 2007.
D. A. Skoog, D. M. West, F. J. Holler: Fundamentals of Analytical Chemistry, Školska knjiga, Zagreb, 1999.
J. Vindakijević, S. Sladojević: Analytical Chemistry, Quantitative Chemical Analysis, Theoretical Foundations of Classical Methods of Analysis, Faculty of Technology, Banja Luka, 2005.
S. Sladojević: Analytical Chemistry, Quantitative Chemical Analysis, Theoretical Foundations, Practicum, Computational Examples, Faculty of Technology, Banja Luka, 2016.

Course activities and grading method

The activity and the colloquium refer to laboratory exercises and are a condition for taking the final exam. Two tests during the semester. The first test refers to gravimetric methods, and the second test to volumetric methods of analysis. Test results are included in the final grade only if they exceed 50% of the points provided for this form of knowledge assessment.

Activity	5	Tests	20
Exit colloquium	15	Final exam	60

Additional course notes

/

Name of the teacher who prepared this form	Dragana Blagojević