

Level: master				
Course title: SPECIAL CHEMICAL EXPERIMENTS IN TEACHING				
Status: elective				
ECTS: 5				
Requirements: none				
Learning objectives Training students - future teachers of chemistry for the application of chemical experiments in special chemical disciplines and with the use of special techniques of chemical experiments for teaching chemistry.				
Learning outcomes After successfully completing the course, the student is able to: comprehend and describe the importance of chemical experiments from the aspect of cognition specificity in certain chemistry disciplines; perform a critical selection of chemical experiments for teaching requirements of certain chemistry disciplines; analyze risks and implement necessary safeguards in the implementation of biochemical and electrochemical experiments in teaching; take responsibility for the organization and implementation of chemical experiments in the given teaching situations; apply special techniques of chemical experiments in teaching.				
Syllabus <i>Theoretical instruction</i> Planning, organization and implementation of student and demonstration chemical experiments in chemistry specific scientific disciplines. Biochemical demonstrational and student's experiments: criteria for selection, premises and equipment. Electrochemical demonstrational and student's experiments: criteria for selection, premises, equipment and protection measures. Chemical experiments in professional education of chemistry technical staff. Chemical experiments in optical projection. Simulation of chemical experiments. <i>Practical instruction: Exercises, Other forms of teaching, Study research work</i> Selection, preparation, implementation and elaboration of demonstrational and students' experiments in biochemistry and electrochemistry. Selection, preparation, implementation and elaboration of chemical experiments in optical projection. Preparation and defence of seminar paper on a selected topic about chemical experiments in narrow-vocational education of technical staff.				
Weekly teaching load				Other:
Lectures: 2	Exercises: 2	Other forms of teaching:	Student research:	