

Level: Specialist academic studies of chemistry				
Course title: Advanced course of analytical spectrometry				
Status: elective				
ECTS: 5				
Requirements: none				
Learning objectives Train students to understand the principles and possibilities of atomic and molecular spectroscopy in the qualitative and quantitative analysis. This education prepares students for solving/evaluation of complex problems in the field of analytical spectroscopy. Introduce students to the development trends.				
Learning outcomes Master the specialized knowledge that will enable students to propose modern and suitable analytical approach in solving some problems by using appropriate analytical spectroscopic techniques.				
Syllabus <i>Theoretical instruction</i> Molecular absorption spectrometry. UV-Vis and IR spectroscopy. Raman spectroscopy. Fluorescence spectrometry. Atomic absorption and emission spectroscopy. Atomic fluorescence techniques. Methods of X-rays. Radiochemical methods. NMR principles and application of NMR spectra. Coupled techniques. Automatic spectrometric systems. Precision and sensitivity of spectroscopic measurements. <i>Practical instruction</i> Practical instruction follows the theoretical one.				
Weekly teaching load				Other:
Lectures: 2	Exercises:	Other forms of teaching: 2	Student research:	