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| Level: bachelor | | | | |
| Course title: Seminar of analytical chemistry | | | | |
| Status: elective | | | | |
| ECTS: 5 | | | | |
| Requirements: none | | | | |
| Learning objectives: Qualifying students to elaborate a concept for analytical determination of a selected component. Enabling students to understand effective problem solving strategy in analytical chemistry. Implementation of different techniques of presenting information in analytical chemistry. Develop capability of skilled communication of acquired knowledge in form of a seminar paper. | | | | |
| Learning outcomes: After completing the course, students should be able to explain the main principles for choosing the adequate method for determination of the selected component, to use different sources of information, to compare the advantages and drawbacks of different methods for determination, to select the most suitable method and work out a plan for determination, to employ IT-based techniques for interpretation and presentation of the results. | | | | |
| Syllabus <i>Theoretical instruction:</i> Basic principles of elaboration strategy for appropriate choosing of the method for analytical determination. Relationship between the method of analysis and the aim of the determination. Literature review and data categorization. The choice of method and elaboration of the detailed plan of analysis. Methods of calculating results of analysis and their adequate presentation. <i>Additional activities:</i> Interpretation of literature data and data obtained by search of electronic databases. Preparation of concept for analytical determination. Critical analysis of the components of the mixture which may affect the result of analysis. Discussion of different possibilities for choosing a particular phase of analysis, from sampling up to presentation of the results. Instructions for writing the seminar paper. | | | | |
| Weekly teaching load | | | | Other: |
| Lectures: 2 | Exercises: | Other forms of teaching: 2 | Student research: | |