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| **Study program:** Doctoral academic studies **-** Chemistry |
| **Course title:** Instrumental Methods of Analysis of Selected Groups of Organic Compounds (H300C) |
| **Name of lecturer/lecturers:** Snežana Č. Jovanović |
| **Type of course:** elective |
| **Number of ECTS allocated:** 10 |
| **Course objectives**Acquaint students with the latest theoretical knowledge in the field of modern chromatographic, instrumental and combined methods of analyzing compounds found in the market and in the environment. |
| **Course outcomes** Upon successful completion of this course, the student will improve existing knowledge and master the process of searching scientific literature to select and implement verified analyzes procedures, as well as improving them depending on the research goal.  |
| **SYLLABUS***Lectures*Study of the advantages of modern chromatographic and instrumental methods of the analysis of organic compounds (theoretical basis). Application of chromatographic, spectroscopic and combined methods in the analysis of different classes of organic compounds (non-toxic, biologically active and toxic substances): macro- and micro-constituents of food, food additives, tobacco compounds, tobacco smoke and alternative cigarettes, polycyclic aromatic hydrocarbons in different samples and potential allergens in cosmetic preparations. |
| **References**1. I. D. Wilson, Encyclopedia of Separation Science, Elsevier Science Ltd., 2000.2. M. Hesse, H. Meier, B. Yeeh, Spectroscopic Methods in Organic Chemistry, G. Thieme Verlag, 1997.3. L. D.Field, S. Sternhell, J. R. Kalman, Organic Structures from Spectra, John Wiley and Sons, LTD, New York, 2002.4. S. S. Nielsen, Food Analysis, Springer, 2017.5. D. L. B. Wetzel, G. Charalambous, Instrumental Methods in Food and Beverage Analysis; Elsevier, 1998. |
| **Active teaching classes** | **Lectures:** 105 | **Laboratory work:** / |
| **Teaching mode:** interactive teaching, seminars, consultations |
| **ASSESSMENT METHODS AND CRITERIA (Max 100 points)** |
| activity during lectures - 10 points; colloquiums - 30 points; seminar - 10 points; written exam - 50 points |