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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Science and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | **Chemistry** |
| Study Module (if applicable) | Environmental chemistry |
| Course title | Organic pollutants |
| Level of study | ☐Bachelor ☒ Master’s ☐ Doctoral |
| Type of course | ☒ Obligatory☐ Elective |
| Semester  | ☐ Autumn ☒Spring |
| Year of study  | 2. |
| Number of ECTS allocated | 8 |
| Name of lecturer/lecturers | Polina D. Blagojević, Aleksandra S. Đorđević |
| Teaching mode | ☒Lectures ☐Group tutorials ☒ Individual tutorials☒Laboratory work ☐ Project work ☐ Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *The aim of the course is to introduce the general information on the structure and properties of the common organic pollutants and environmental factors that govern the processes that determine the fate of organic chemicals in natural and engineered systems.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| This course will include the following general topics: 1) structure and properties of organic compounds, the most important organic pollutants (POPs); 2) partitioning (equilibrium, molecular interactions, and thermodynamics; factors influencing partitioning behavior); activity coefficients and solubility in water; 3) sorption; 4) toxicological characteristics of organic pollutants; 5) biotransformation; 6) stability and reactivity of organic pollutants (hydrolysis, nucleophilic and oxido-reductive reactions, direct and indirect photolysis); 7) thermodynamics and kinetics of transformation reactions; 8) transport (by random motion and throughout boundaries); 8) modeling; 9) examples of specific ecological disasters caused by organic pollutants; 10) legislation. |
| **LANGUAGE OF INSTRUCTION** |
| ☒Serbian (complete course) ☐ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **10** | **Written examination** | **50** |
| **Practical teaching** | **10** | **Oral examination** |  |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |