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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Faculty of Occupational Safety in Niš | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | Environmental Protection | | |
| Study Module (if applicable) | | | | / | | |
| Course title | | | | Environmental Chemistry | | |
| Level of study | | | | ☒Bachelor ☐ Master’s ☐ Doctoral | | |
| Type of course | | | | ☐ Obligatory ☒ Elective | | |
| Semester | | | | ☒ Autumn ☐Spring | | |
| Year of study | | | | 3rd | | |
| Number of ECTS allocated | | | | 6 | | |
| Name of lecturer/lecturers | | | | Marina Stojanović | | |
| Teaching mode | | | | ☒Lectures ☐Group tutorials ☐ Individual tutorials  ☒Laboratory work ☐ Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☒ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Acquiring basic theoretical and practical knowledge about physicochemical, chemical and biochemical processes in the air, water and soil and their application in environmental monitoring. After this course students will be able to study environmental processes, which allows them to adequately perceive the distribution and transformation of pollutants in order to preserve environmental quality.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| Theoretical lessons: Atmospheric chemistry - composition and structure of the atmosphere, air movement, homogenous chemical processes, heterogeneous chemical processes, photo‐chemical processes; Hydrosphere chemistry - chemical composition, structure, and properties of water, physicochemical processes in water, biochemical processes in water; Soil chemistry - origin of chemical elements and their global cycles, theories of origin of lithosphere and soil, chemical composition of soil, soil colloids, soil buffer, soil phases. Circulation cycles of chemical elements and compounds in nature. State and consequences of environmental (atmosphere, hydrosphere, soil) pollution by chemicals. Indicators of chemical environmental pollution. Classification of chemical pollutants. Transformation of chemical pollutants through the environment. Practical lessons: Examples of material sampling from the environment. Elaboration of current topics pertaining to environmental contamination and protection. Laboratory work. | | | | | | |
| **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** | | |  |
| **Practical teaching** | **10 + 10 (term paper)** | | **Oral examination** | | | **40** |
| **Teaching colloquia** | **30 (15 + 15)** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |