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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) | / |
| Course title | Introduction to Environmental Chemistry |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | 3rd |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Tatjana Andjelkovic |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| To provide knowledge of the most important chemical processes in the lithosphere, atmosphere and hydrosphere. A special emphasis is given to comparison of biogeochemical processes in uncontaminated areas, the fate of the most important chemical species of natural environments and their stability depending on the environmental conditions, as well as abiotic and biotic transformations that they undergone. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| 1. Creation and distribution of chemical elements 2. Formation of rocks, magmatic processes and magma differentiation. Silicate, alumosilicate and clay minerals. 3. Weathering processes of minerals and rocks 4. Soil formation, composition and properties 5. Sorption, ion exchange and redox processes in soil 6. Water as chemical compound. Chemical components of natural waters. 7. Hydrological and other biogeochemical cycles in the environment. 8. Water quality parameters 9. Processes and matter transport in water 10. Characteristics in the atmosphere, composition and temperature profile. 11. Air movement. Atmospheric weather phenomena. Air natural components distribution. 12. Homogenic and heterogenic processes in the atmosphere.13. Ozonosphere and ozone holes.14. The greenhouse effect.15. Acid rains and photochemical smog. |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [x]  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** | **4** | **Written examination** | **/** |
| **Practical teaching** | **18** | **Oral examination** | **30** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **Homework assesment** | **8** |  |  |
| **\*Final examination mark is formed in accordance with the Institutional documents** |