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| **Faculty of Sciences and Mathematics, UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** |  |
| **GENERAL INFORMATION** |
| Study program  | **PhD** |
| Study Module (if applicable) |  |
| Course title | The selected chapters of bioinorganic chemistry |
| Level of study | ☐ Bachelor ☐ Master’s ☒ Doctoral |
| Type of course | ☐ Obligatory ☒ Elective |
| Semester  | ☐ Autumn ☒ Spring |
| Year of study  | Second |
| Number of ECTS allocated | 8 |
| Name of lecturer/lecturers | Ružica S. Nikolić, Nenad S. Krstić |
| Teaching mode | ☐ Lectures ☐ Group tutorials ☒Individual tutorials☐ Laboratory work ☒Project work ☒ Seminar☐ Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Introduction with the importance of chemical elements in the environment and to biometals and bioligands. Realizing and understanding the essence of the vitally important process. Acquiring skills that have practical applications in medicine, biology, environmental concerns, food, toxicology* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Introduction to bioinorganic chemistry. Bioelements, biometals and bioligands. The biological importance of alkali and alkaline earth metals. Metaloproteins and metaloenzimes. Bioinorganic chemistry of iron. Bioinorganic chemistry of cobalt, manganese and nickel. Biological importance of zinc. Copper as bioelement. Model systems of coordination compounds of biometals, synthesis, and characterization and spectroscopic analyzes. Biomineralization. |
| **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** | **20** | **Written examination** |  |
| **Practical teaching** |  | **Oral examination** | **40** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |