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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 inorganic 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 | Nikola D. Nikolić, Maja N. Stanković |
| 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 physicochemical properties, reactivity, forms in the environment of s-, p-, d- and f-elements,**-* the *essence of the process of forming the coordination compounds and their properties, role and character explored through the examples of important d- metals,**-* *Application in different areas of human activity.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| s-, p- and d-elements. Complex compounds. Metalorganic compounds. Inorganic compounds in catalytic processes. Complex compounds (the formation, properties, reactivity, and structure). The electronic spectra of transition metal complexes. The reactions of the complex compounds. Acid-base properties. General physicochemical properties, activity, and the complete characterization of ions of selected d-metals. The lanthanides, actinides and transuranic elements. |
| **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** |