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| **Faculty of Sciences and Mathematics, UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | |  | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | **Postgraduate** | | |
| Study Module (if applicable) | | | | Research and development | | |
| Course title | | | | Theoretical 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 | | | | 4 | | |
| Name of lecturer/lecturers | | | | Ružica S. Nikolić | | |
| Teaching mode | | | | ☒ Lectures ☒ Group tutorials ☐ Individual tutorials  ☐ Laboratory work ☐ Project work ☐ Seminar  ☐ Distance learning ☐ Blended learning ☐ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Understanding of molecule formation, prediction of bond type in molecules. Prediction of molecule properties and methods of investigation according of chemical bond type.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| *Wave-mechanic model of atom structure. Wave function. Atomic orbitals (s-, p-, d-). Chemical bond. Molecular-orbital theory of small molecules and ligands. Chemical bonds in coordination compounds. Ionic bond. Structure of metals.* | | | | | | |
| **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** | **5** | | **Written examination** | | | **10** |
| **Practical teaching** | **15** | | **Oral examination** | | | **20** |
| **Teaching colloquia** | **50** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |