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| **Faculty of Sciences and Mathematics, UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** |  |
| **GENERAL INFORMATION** |
| Study program  | **Doctoral** |
| Study Module (if applicable) |  |
| Course title | Selected chapters of techniques and methods of characterizationinorganic compounds |
| Level of study | ☐ Bachelor ☐ Master’s ☒ Doctoral |
| Type of course | ☐ Obligatory ☒ Elective |
| Semester  | ☒ Autumn ☐ Spring |
| Year of study  | First |
| Name of lecturer/lecturers | Dragan M. Đorđević |
| Teaching mode | ☒ Lectures ☒Group tutorials ☐ Individual tutorials☐ Laboratory work ☐ Project work ☐ Seminar☐ Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Introducing students to modern methods and techniques of characterization of inorganic compounds and samples of various geological materials. Student will be able to with the help of modern methods and techniques perform various geological characterizations of samples of the materials (coal, clay, shale, oil ...) and inorganic compounds in different systems.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Introduction. Sampling and statistical beard measurement results. UV-VIS, IR and X-ray spectroscopy. Nuclear magnetic and electron spin resonance spectrometry. Mass spectrometry. Electron microscopy with a microprobe. Atomic absorption spectrophotometry. Optical-emission spectroscopy. Optical emission spectroscopy with inductively coupled plasma. Collection literature data and results measurement.  |
| **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** | **/** |
| **Practical teaching** | **5** | **Oral examination** | **30** |
| **Teaching colloquia** | **60** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |