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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Faculty of Technology | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | Technological Engineering | | |
| Study Module (if applicable) | | | | / | | |
| Course title | | | | Extraction and extraction systems | | |
| Level of study | | | | ☐Bachelor ☐ Master’s ☒ Doctoral | | |
| Type of course | | | | ☐ Obligatory ☒ Elective | | |
| Semester | | | | ☒ Autumn ☒Spring | | |
| Year of study | | | | II year | | |
| Number of ECTS allocated | | | | 8 | | |
| Name of lecturer/lecturers | | | | Staniša Stojiljković, Ljiljana Stanojević | | |
| Teaching mode | | | | ☒Lectures ☐Group tutorials ☐ Individual tutorials  ☐Laboratory work ☐ Project work ☒ Seminar  ☐Distance learning ☐ Blended learning ☐ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| Acquiring knowledge in the theory and techniques of solid-liquid, solid-liquid-liquid and liquid-liquid extraction systems, necessary for scientific research in the field of chemical and bioprocess engineering. | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| The development of skills and the acquisition of competencies for research in the field of extraction and extraction systems through the next main subjects: mass transfer in extraction process, extraction of conventional and modern techniques in solid-liquid systems. Mass transfer and calculations of extraction process in conventional and modern extraction techniques in solid-liquid-liquid systems. Mass transfer and calculations of extraction process in conventional and modern extraction techniques in liquid-liquid systems. Extraction of bioproducts from natural plant, animal and microbial materials. Extraction by liquid gases in subcritical and supercritical conditions. Ultrasonic and microwave extraction. Apparatus and devices for extraction. | | | | | | |
| **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** | **/** | | **Oral examination** | | | **60** |
| **Teaching colloquia/Seminar** | **35** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |