|  |
| --- |
|  **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** |