|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **UNIVERSITY OF NIŠ** | | | | | | | | |
| **Course Unit Descriptor** | | | **Faculty** | | Faculty of Mechanical Engineering | | | |
| **GENERAL INFORMATION** | | | | | | | | |
| Study Program | **Energy and Process Engineering** | | | | | | | |
| Study Module (if applicable) | - | | | | | | | |
| Course Title | Purification Techniques | | | | | | | |
| Level of Study | ☐ Bachelor | | | ☒ Master’s | | | | ☐ Doctoral |
| Type of Course | ☐ Obligatory | | | ☒ Elective | | | | |
| Semester | ☒ Autumn | | | ☐ Spring | | | | |
| Year of Study | I | | | | | | | |
| Number of ECTS Allocated | 6 | | | | | | | |
| Name of Lecturer/Lecturers | Mladen M. Stojiljković, Predrag M. Živković | | | | | | | |
| 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 the equipment, methods and mechanisms of gas purification.* | | | | | | | | |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** | | | | | | | | |
| Physical background of purification processes. Purification and filtration of gasses. Deposition and inertial chambers. Blinds. Centrifugal purifiers – cyclones and multicyclones. Filters. Design and sizing of dry gas purifiers. Wet gas purifiers. Dynamic gas purifiers. Design and sizing of wet gas purifiers. Purification and filtration of liquids. Hydrocyclones. Mechanical filtration. Air filters. Membrane separation processes. | | | | | | | | |
| **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** | | | **-** (or max 70 depending on Pre exam Duties) | | |
| **Practical Teaching** | | **25** | **Oral Examination** | | | **Max. 30** (depending on Teaching Colloquia) | | |
| **Teaching Colloquia** | | **40** | **Overall Sum** | | | **100** | | |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | | | |