|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | Energy efficiency and ecology | | | | | | | |
| 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 | Branislav Stojanović, Dejan Mitrović, Živan Spasić | | | | | | | |
| Teaching Mode | ☒ Lectures | | | ☒ Group tutorials | | | | ☐ Individual tutorials |
| ☐ Laboratory work | | | ☒ Project work | | | | ☒ Seminar |
| ☐ Distance learning | | | ☐ Blended learning | | | | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** | | | | | | | | |
| *Introduction to the issue of energy efficiency in production, transport and use of heat and electricity, as well as the impact on the environment.* | | | | | | | | |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** | | | | | | | | |
| *- General introduction to energy efficiency and sustainable development, - Energy sources, - Energy policy and energy strategy. Energy Balance, - Energy efficiency Indicators, - Energy management in industry, - Preliminary energy balance, - Detailed energy balance, - Energy management in buildings, - Energy efficiency in water supply systems, - Energy efficiency of hydro and wind power, - Energy efficiency of compressed air systems, - Pollution and environmental protection* | | | | | | | | |
| **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** | | **10** | **Written Examination** | | | **20** | | |
| **Practical Teaching** | | **10** | **Oral Examination** | | | **Max.50 (depending on Teaching Colloquia)** | | |
| **Teaching Colloquia** | | **10** | **Overall Sum** | | | **100** | | |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | | | |