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| **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 andelectricity, 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** |