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| **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Mechanical Engineering |
| **GENERAL INFORMATION** |
| Study Program | **Mechanical Engineering** |
| Study Module (if applicable) | - |
| Course Title | Combined heat and power production |
| Level of Study |  ☐Bachelor |  ☐ Master’s | ☒ Doctoral |
| Type of Course | ☒ Autumn | ☐ Spring |
| Semester | ☐ Autumn | ☐ Spring |
| Year of Study | II |
| Number of ECTS Allocated | 10 |
| Name of Lecturer/Lecturers | Mitrović M. Dejan, Stojilјković M. Mladen, Stefanović P. Velimir  |
| Teaching Mode | ☒ Lectures | ☒ Group tutorials | ☐ Individual tutorials |
| ☐ Laboratory work | ☒ Project work | ☒ Seminar |
| ☐ Distance learning | ☐ Blended learning | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** |
| To introduce students with: the technologies for combined heat and power production, key technical indicators of these systems, the benefits of these systems in relation to the separate production of heat and electricity, trigeneration and polygeneration systems. |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** |
| - General introduction to cogeneration, - Technologies for combined heat and power production, - Performance Indicators, - Trigeneration and polygeneration systems, - [Potential for co-generation of heat and electricity in Serbia](http://scindeks.ceon.rs/article.aspx?artid=0350-218X1102197M), - Design of cogeneration power plant, - Computer aided tools for process synthesis, analysis and optimum design of cogeneration.Preparing students for research in the doctoral dissertation by writing a seminar paper on the topic, which is in direct correlation with the consideration of an adequate model of the task of the doctoral dissertation.  |
| **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** |  | **Written Examination** |  |
| **Practical Teaching** |  | **Oral Examination** | **100** |
| **Teaching Colloquia** |  | **Overall Sum** |  |
| **\*Final examination mark is formed in accordance with the Institutional documents** |