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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 | Measurements in Energy and Process Engineering |
| Level of Study | ☐ Bachelor | ☐ Master’s | ☒ Doctoral |
| Type of Course | ☐ Obligatory | ☒ Elective |
| Semester | ☒ Autumn | ☐ Spring |
| Year of Study | II |
| Number of ECTS Allocated | 10 |
| Name of Lecturer/Lecturers | Gradimir S. Ilić, Dragiša D. Nikodijević, Dragica R. Milenković, Mladen M. Stojiljković, Bratislav D. Blagojević, Dragoljub S. Živković, Velimir P. Stefanović, Branislav V. Stojanović, Mića V. Vukić, Gordana M. Stefanović, Jelena N. Janevski, Dejan M. Mitrović, Mirjana S. Laković-Paunović, Miloš M. Jovanović, Predrag M. Živković, Živan T. Spasić |
| Teaching Mode | ☒ Lectures | ☐ Group tutorials | ☐ Individual tutorials |
| ☒ Laboratory work | ☐ Project work | ☐ Seminar |
| ☐ Distance learning | ☐ Blended learning | ☐ Other |
| **Purpose and Overview (max. 5 sentences)** |
| *To gain new knowledge in the field of measurement systems, measuring equipment and measuring methods on macro and micro levels. To enable students to formulate independently and on scientific principles appropriate experimental investigation in energy and process engineering which is related to the PhD thesis.* |
| **Syllabus (brief outline and summary of topics, max. 10 sentences)** |
| 1)Measurement of macro flow parameters; 2) Measurement of turbulent flow characteristics; 3) Measuring the composition of gases and liquids; 4) Measurement of physical parameters during combustion; 5) Measurement in energy and process plants; 6) Measurements of flow and heat transfer physical parameters in thermal equipment; 7) Measurements of physical parameters of flow in turbo machines and hydro mechanical equipment; 8) Measuring equipment characteristics; 9) Operational modes of instruments; 10) On-line and off-line measurement techniques; 11) Static and dynamic characteristics of instruments; 12) Measurement accuracy; 13) Measurements standards. |
| **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 Work** | **50** | **Oral Examination** | **Max. 50** |
| **Teaching Colloquia or Seminar** | **-** | **Overall Sum** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |