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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Technology |
| **GENERAL INFORMATION** |
| Study program  | Technological Engineering |
| Study Module (if applicable) | / |
| Course title | Polymer structure |
| Level of study | ☐Bachelor ☐ Master’s ☒ Doctoral |
| Type of course | ☐ Obligatory ☒ Elective |
| Semester  |  ☒ Autumn ☒Spring |
| Year of study  | I year |
| Number of ECTS allocated | 8 |
| Name of lecturer/lecturers | Jakov Stamenković |
| 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’ about the molecular and the molecular structure of the polymer and their influence on the thermal, electrical and mechanical properties, as well as the relaxing properties of the polymer. Outcome is to familiarize students with the structure of the polymer and hence their properties, which allows the obtaining of polymers with the appropriate structure and to obtain polymers with specific properties.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Through this course, PhD student should expand knowledge for: 1. Basic concepts of polymers - Introduction (2 hours); 2. The molecular structure of the polymer chains (2 hours); 3. The supramolecular structure of polymers (2 hours); 4-5. Physical conditions in the polymer (4 hours); 6-8. Thermal properties of polymers (6 hours); 9. Electrical properties of polymers (2 hours); 10-12. Relaxation processes of polymer (6 hours); 13-15. Mechanical properties of polymers (6 hours). |
| **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** | **20** |
| **Practical teaching** | **/** | **Oral examination** | **50** |
| **Teaching colloquia** | **25** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |