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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 | Structure and properties of yarns |
| Level of study | [ ] Bachelor [ ]  Master’s [x]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [x] Spring |
| Year of study  | II |
| Number of ECTS allocated | 8 |
| Name of lecturer/lecturers | Miodrag Stamenkovic |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [x]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Gaining detailed knowledge of the structural and construction characteristics of of certain types of yarn, about the impact of fiber characteristics and parameters of technological processes on the characteristics of the yarn. About design methods characteristic of the yarn spun by various methods. Relations between structural and structural characteristics and quality of yarn. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| 1. Caracteristics of Yarns in correlation whit their structurel caracteristics;2. Influence of caracteristics of fibres on the Yarn-caractreristics;3.Influence of Fibres-preparation on the structure and Yarn characteristics;4. Twist structure in Yarns and their influence on the Yarn caracteristics:5.Influence of processe carachteristics on structural and mechanical caracteristics of Yarns;6. Analisis of spectrum of Yarn-finess and definition unregularity spinning-process;7. Process Parameters of spinning and characterization of fibers in the yarn design.8. The effect of the rotor spinning process on the structure and characteristics of a rotor yarn.9. Design of boundary conditions and properties of rotor spinning yarn.10.The influence of structure wrapped yarn on its characteristics.11.Characteristics of conventional and rotor yarn and their impact on the field of application.12.The influence of mixture composition and characteristics of the properties of wool fibers on carded yarn.13. Methods of design characteristics of cotton yarn.14. Methods of design characteristics of yarn from wool and chemical fiber.15. Dependence of spectrograms weight yarn (linear unevenness) of the technological parameters. |
| **LANGUAGE OF INSTRUCTION** |
| [x] 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** | **25** | **Written examination** |  |
| **Practical teaching** |  | **Oral examination** | **25** |
| **Teaching colloquia** | **50** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |