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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Technology, Leskovac |
| **GENERAL INFORMATION** |
| Study program  | Textile Technologies |
| Study Module (if applicable) | Industrial design of textile products |
| Course title | Structure and properties of fibres  |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | I |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Dragan Djordjevic |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [x]  Seminar [ ] Distance learning [ ]  Blended learning [x]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Upgrading basic skills to accomplish the development of creative abilities and application of innovations in the field, the development of skills in the use of knowledge, mastering specific practical skills necessary for the field that studies the structure and properties of textile fibres.To gain skills and ability to analyze, synthesize and forecasting solutions and consequences, communication abilities and skills, use of information and communication technologies, solve specific problems based on different properties of textile products and the proper selection and application of fibres. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| 1. The structure of the fibres; the structural organization of the fibres.
2. The effect of different agents on the fibres, thermodynamics and kinetics.
3. The production of chemical fibres and structural conversion; the formation of chemical fibre.
4. The structural conversion in shaping the polymer fibres; the structure of the polymer fibre.
5. The physical state of the polymer fibre; models of supra-molecular structure of fibres.
6. The microstructure of the fibres; basic properties of fibres.
7. The relationship between structure and properties of fibres.
8. Behavior of fibres to external influences.
9. The structure of the fibres and wet processing (cleaning, painting ...).
10. Functional properties of textile fibres and complex evaluation.
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| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [x]  English (complete course) [ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)[x] 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** | **-** |
| **Practical teaching** | **10** | **Oral examination** | **50** |
| **Teaching colloquia** | **35** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |