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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 | Design woven materials |
| Level of study | ☐Bachelor ☐ Master’s ☒ Doctoral |
| Type of course | ☐ Obligatory ☒ Elective |
| Semester  | ☒ Autumn ☒Spring |
| Year of study  | II |
| Number of ECTS allocated | 8 |
| Name of lecturer/lecturers | Jovan Stepanović |
| Teaching mode | ☒Lectures ☐Group tutorials ☐ Individual tutorials☐Laboratory work ☐ Project work ☐ Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| The aim of the course:Gaining detailed knowledge about modern methods of designing woven textile materials. Developing the ability to design the most complex types of fabric on the basis of the minimum set parameters. Acquiring basic knowledge about the use of CAD-CAM system.Outcome: Students are trained in modern methods for designing complex structure of woven textile materials and through seminary work they are trained for independent work with the scientific research in this field. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Course content:Projecting methods for woven textile materials. Geometric projecting methods for woven material. Projecting relative density of woven fabrics. Modern methods for projecting crimp of wires in textiles. Modern methods for projecting surface mass of fabric. Methods of projecting woven structure in basic weaves. Methods of projecting woven structures derived weaves. Methods of projecting woven structure in a combined weave. Methods of projecting woven structure in complex weaves. Methods of projecting woven jacquard weave structure. Methods of projecting mechanical characteristics of the fabric. Design of shear characteristics of woven textile materials. Analysis of deformation characteristics of woven textile materials. Design of deformation characteristics of woven fabric. CAD-CAM systems in weaving and their practical application in the design of the fabric. |
| **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** | **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** |