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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  |  |
| **GENERAL INFORMATION** |
| Study program  | **CHEMICAL TECHNOLOGIES** |
| Study Module (if applicable) | ORGANIC CHEMICAL TECHNOLOGY AND POLYMER ENGINEERING MODULE |
| Course title | Elastomer technology |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | III |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Suzana Cakić |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [x]  Seminar [ ] Distance learning [ ]  Blended learning [x]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| The main objective of this course is to inform students about the modern elastomeric materials, from the aspect of of the science of polymers and polymer engineering, starting from natural and synthetic rubber. By gaining knowledge and insight into the elastomeric materials student is trained for selection rubber and certain supplements starting from the physical and chemical requirements of a given elastomeric material. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Structure and properties of elastomers, molecular and sub-molecular structure of the caoutchouces. Physical properties of caoutchouc and rubber products, and chemical reactivity of caoutchouc and rubber. Natural and synthetic caoutchouces. Supplements (fillers, softeners), systems for curing (vulcanization), activators and retardants, anti-aging resources, fatigue and functioning of ozone and other supplements. Preparation formulation for caoutchouc blend and preparation of caoutchouces blends. Analysis of the quality of mixing of caoutchouc blend. Chemistry and technology of crosslinking of caoutchouces blends. |
| **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** | **10** | **Written examination** | **/** |
| **Practical teaching** | **/** | **Oral examination** | **30** |
| **Teaching colloquia** | **60** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |