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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | FACULTY OF TECHNOLOGY LESKOVAC |
| **GENERAL INFORMATION** |
| Study program  | CHEMICAL TECHNOLOGIES |
| Study Module (if applicable) | PHARMACEUTICAL AND COSMETIC ENGINEERING |
| Course title | TECHNOLOGY OF PHARMACEUTICAL PRODUCTS |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | IV |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Dr Ivana Savić GajićDr Nebojša Cekić |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Students gain necessary knowledge in the field of technology of pharmaceutical products at an industrial level starting from pharmaceutical substances through selecting dosage forms, excipients to pharmaceutical and technological production procedures, packing, marking and quality control of pharmaceutical products. Students also get familiar with and learn to apply national and international legislation in the field of pharmaceutical products. Students gain knowledge, which enable them to work in real conditions, i.e. in the production of pharmaceutical products and research and development laboratories.  |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Development of a new drug - Preformulation and formulation aspects. Liquid pharmaceutical preparations for oral or external use, solutions, suspensions and emulsions. Sterilization and sterilization methods. Sterile pharmaceutical preparations - injection, infusion solutions, preparations for eyes. Semi-solid pharmaceutical forms - ointments, creams, gels. Solid pharmaceutical products - tablets, capsules, powders, and granules. Pharmaceutical dosage forms for application in body cavities. Pharmaceutical dosage forms with modified/controlled release of drug substance. Stability of drugs. Good Manufacturing Practice. |
| **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** | **20** | **Oral examination** | **70** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |