|  |
| --- |
|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | **Faculty of Medicine** |
| **GENERAL INFORMATION** |
| Study program  | **Pharmacy** |
| Study Module (if applicable) |  |
| Course title | Pharmaceutical Technology 2 |
| Level of study | ☐Bachelor ☐x Master’s ☐ Doctoral |
| Type of course | x☐ Obligatory☐ Elective |
| Semester  | ☐x Autumn ☐xSpring |
| Year of study  | IV |
| Number of ECTS allocated | 10 |
| Name of lecturer/lecturers | Doc.dr Marija Tasić-Kostov, ass. Milica Stanković |
| Teaching mode | ☐xLectures ☐Group tutorials ☐ Individual tutorialsx☐Laboratory work ☐ Project work ☐ Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| To introduce students with composition, properties, testing, manufacturing/compounding of conventional and new pharmaceutical dosage forms for oral (capsules, tablets), parenteral (injections, infusions, concentrations, implants), opthalmological, rectal and vaginal use, pharmaceutical forms for inhalation, preparations with modified release of a medicinal/active agent, and therapeutic systems, including theoretical basis of pharmaceutical forms as multicomponent and multiphase systems. A student is skilled to formulate the above mentioned dosage forms, and has knowledge on types, characteristics and the role of excipients in the formulation. A student is able to advise patients, and provide relevant information to other healthcare professionals. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Lectures Basic principles of the formulation of dosage forms for oral (capsules and tablets) parenteral, ophthalmic, inhalation, rectal, and vaginal application;.the types, characteristics, composition, compounding/manufacturing procedures, quality requirements, and test procedures for above dosage forms and factors influencing the selection of appropriate excipients. Sterilisation and methods of sterilisation in the compounding/manufacturing of pharmaceuticals. Immunobiological preparations for active and passive immunization - pharmaceutical technical aspects. Biological drugs/biopharmaceutics - characteristics and production techniques (recombinant DNA-technology); first and second generation of biopharmaceutics – insulin examples. Radiopharmaceutical preparations - pharmaceutical technical aspects. The types, characteristics, composition, and test procedures for preparations for inhalation. Practical classesSelection of the adequate equipment, container/packaging, and assurance of proper conditions for compounding parenteral and eye preparations (selected examples). Sterilisation, methods of sterilisation and equipment; aseptic technique, work in a laminar chamber. Preparations for inhalation - pharmaceutical technical procedures. Extemporaneous pharmaceutical compounding and test procedures for suppositories and pessaries as well as for capsules for oral use (selected examples). |
| **LANGUAGE OF INSTRUCTION** |
| ☐xSerbian (complete course) ☐ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)☐xSerbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **5** | **Written examination** | **50** |
| **Practical teaching** | **30** | **Oral examination** | **5** |
| **Teaching colloquia** | **10** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |