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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  |  |
| **GENERAL INFORMATION** |
| Study program  | **Chemistry** |
| Study Module (if applicable) |  |
| Course title | Fundamentals of industrial chemistry |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | Third |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Aleksandar Bojic/Jelena Mitrovic |
| 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)** |
| *Acquiring theoretical and practical knowledge of the basic principles of chemical process technologies, basis**homogeneous, heterogeneous and catalytic chemical process technologies and the basis of chemical reactors. Introduction to the methods for the purification and enrichment of raw materials and production technologies of important**inorganic and organic compounds and environmental problems of the chemical industry.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Basic of chemical process technologies. Fundamentals of chemical process rate. Technology planning and budgets. Fundamentals of homogeneous and heterogeneous chemical process technologies. Fundamentals of catalytic chemical process technologies. Basics of chemical reactors. Principles of separation liquid from the liquid mixture. The principles of purification and separation of gases from gas mixtures. Principles of enrichment and purification of raw materials. The technology of industrial gases. Technology of mineral pigments. The technology of fermentation: production of beer, wine and alcohol. Basics of fuel technology. Technology of inorganic and organic explosives. Ecological problems of chemical industry.** |
| **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** | **30** |
| **Practical teaching** | **20** | **Oral examination** |  |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |