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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty of Technology** |  |
| **GENERAL INFORMATION** |
| Study program  | Undergraduate studies: Chemical Technologies |
| Study Module (if applicable) | Ecological Engineering |
| Course title | Filtration in processing industry |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  | [x]  Autumn [ ] Spring |
| Year of study  | Third |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Prof. Olivera Stamenković |
| Teaching mode |  [x] Lectures [ ] Group tutorials [x]  Individual tutorials [x] Laboratory work [x]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Students gain the necessary knowledge of filtration methods, phenomena and devices calculations. The aim of the course is to present to students the basic phenomena and principles of filtration, filtration under different conditions of filtration, different types of devices for filtration and learn how to calculate them. Students are able to independently calculate filtration devices. Students acquire the knowledge which enables them to work in real conditions. By comprehensive understanding of the problems students are able to solve them. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Fluido-dynamically basis of the filtration. Darcy’s low. Filter media and use of filter aids. Filtration through incompressible and compressible cake. Filter media filtration. Filtration mechanisms. Constant pressure filtration. Constant rate filtration. Variable pressure and rate filtration. Calculation of batch and continuous filtration devices. Industrial filtration equipment. |
| **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** | **5** | **Written examination** |  |
| **Practical teaching** | **5** | **Oral examination** | **60** |
| Project work | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |