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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) | ECOLOGICAL ENGINEERING |
| Course title | Heat exchangers design |
| 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 | 5 |
| Name of lecturer/lecturers | Predrag Rašković |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| This course provides an Introduction to heat exchangers (types, applications, materials, specification and selection), heat transfer correlations and methodology for thermal design of heat exchangers. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Topics covered: Types of heat exchangers, working fluids in heat exchangers, recuperative heat exchangers, Heat transfer correlations, Parallel flow, Counter flow and Cross flow; Fouling factors, Pressure drop calculations, Selection criteria of heat exchangers, Thermal design and analysis of: shell and tube heat exchangers, condensers, evaporators, plate heat exchangers, evaporative heat exchangers. |
| **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** |  | **Oral examination** | **30** |
| **Teaching colloquia** |  |  |  |
| **Seminar papers** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |