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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Occupational Safety in Niš |
| **GENERAL INFORMATION** |
| Study program  | Environmental Engineering |
| Study Module (if applicable) |  / |
| Course title | Life Cycle Assessment |
| Level of study | ☐ Bachelor ☑ Master’s ☐ Doctoral |
| Type of course | ☐ Obligatory ☑ Elective |
| Semester  | ☐ Autumn ☑ Spring |
| Year of study  | I |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Srdjan Glisovic |
| Teaching mode |  ☑Lectures ☑Group tutorials ☐ Individual tutorials ☐Laboratory work ☑ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Preparing students to acquire a systemic perspective on environmental attributes of industrial products across all lifecycle phases; to identify weak points in product life cycle as well as possibilities for an efficient, eco-friendly redesign of industrial products; to master the theory and acquire knowledge about methods and tools for analyzing environmental impacts of products and processes; to acquire skills to identify the shortcomings and to assess the opportunities to improve industrial products in terms of environmental impacts, energy efficiency, and application of secondary materials.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Industrial product as a system and life‐cycle phases. LCA types and area of implementation. Streamlined life-cycle analysis of a product environmental performance (MET matrix). LCA methods and databases. System boundaries, functional unit and life cycle inventories. Environmental impact categories and characterization, aggregation. Normalization and weighting. Interpretation and communication. Life‐cycle assessment tools - the structure and elements of various software packages (i.e. *GaBi, SimaPRO, SW/Sustainability*). Eco-labelling and environmental product declarations. |
| **LANGUAGE OF INSTRUCTION** |
| ☑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** | **20** |
| **Practical teaching** | **20** | **Oral examination** | **20** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |