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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty of Technology** |  |
| **GENERAL INFORMATION** |
| Study program  | Graduate studies: Food Technology and Biotechnology, Chemical Technologies and Textile Technologies |
| Study Module (if applicable) | Food Technology, Biotechnology, Pharmaceutical and Cosmetic Engineering, Organic Chemical Technology and Polymer Engineering, Ecological Engineering and Industrial Design of Textile Products |
| Course title | Principles of sustainable development |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  | [x]  Autumn [ ] Spring |
| Year of study  | First |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Prof. Olivera Stamenković |
| Teaching mode |  [x] Lectures [x] Group tutorials [x]  Individual tutorials [ ] Laboratory work [ ]  Project work [x]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Students gain basic knowledge of the concept of sustainable development, become familiar with basic engineering principles methodologies for the implementation of sustainable development approaches. The aim of the course is that students master the principles of sustainable development, identify opportunities for its realization, and acquire the integrated knowledge about the impact of energy production and consumption on the environment. Students are able themselves to apply the principles of sustainable development, to understand the processes used in renewable energy development and to work in real conditions. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Sustainable development - basic concepts, definitions of sustainable development. The principles of sustainable development. UN documents. Methods of assessment and indicators of sustainable development. Rational use of raw materials, water and energy. Alternative energy sources: Choices, problems and opportunities. Fossil fuels depletion. Definition, types and cost of alternative energy. The impact of alternative energy use on the environmental. Calculation of the operations and the processes used in utilization of alternative energy sources. |
| **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** |  |
| **Practical teaching** |  | **Oral examination** | **60** |
| **Seminar work** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |