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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | FACULTY OF TECHNOLOGY LESKOVAC |
| **GENERAL INFORMATION** |
| Study program  | Food technology and biotechnology |
| Study Module (if applicable) | Food technology module, Biotechnology module |
| Course title | Physiology of industrial microorganisms |
| Level of study | ☐Bachelor X Master’s ☐ Doctoral |
| Type of course | ☐ Obligatory X Elective |
| Semester  | X Autumn ☐Spring |
| Year of study  | I |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Dragiša Savić |
| Teaching mode | X Lectures ☐Group tutorials ☐ Individual tutorialsX Laboratory work ☐ Project work X Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Introduction to the biochemical basis of microbial cells functioning and techniques for the study and monitoring of changes in the physiology of microorganisms, especially those used in industry. Theoretical and practical mastering the technique of studying biochemical properties of microorganisms, as well as a methods for isolating and screening for industrial microorganisms.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Classification and overview of industrial microorganisms, Energy processes and the transports through the microbial cell membranes, Metabolic pathways, Systems of metabolism regulation, Metabolic pathways in industrial microorganisms (*Saccharomyces*, lactic acid bacteria, acetic acid bacteria, *Aspergillus, Penicillium*, streptomycetes)****Systems of metabolism regulation of industrial microorganisms** |
| **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** | **20** |
| **Practical teaching** | **10** | **Oral examination** | **30** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |