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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) | Biotechnology module |
| Course title | **Genetics of industrial microorganisms** |
| Level of study | ☐Bachelor X Master’s ☐ Doctoral |
| Type of course | ☐ Obligatory X Elective |
| Semester  | ☐ Autumn X Spring |
| Year of study  | I |
| Number of ECTS allocated | 5 |
| 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 genetic basis of cell functioning, as well as molecular biology techniques to study and monitor changes in the microbial genetic characteristics, especially those used in industry.* *Theoretical and practical introduction in the techniques of studying the microbial genetic characteristics, as well as the methods of molecular biology in the identification of microorganisms.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Preservation and of industrial microorganisms, World Collection of industrial microorganisms and the genetic material,****Isolation of potential industrial strains of microorganisms, Molecular identification of microorganisms (PCR, RAPD, rRNA sequencing), Methods for determining the characteristics of microorganisms important for industrial applications, Genetic Engineering: Principles and mechanisms, Advantages and disadvantages of using genetically modified microorganisms in industry** |
| **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** |