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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 tutorials  X 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** | | | | | | |