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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Sciences and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | **Biology and Ecology** |
| Study Module (if applicable) |  |
| Course title | PATHOGENIC MICROORGANISMS AND FUNGI |
| Level of study | [ ] Bachelor [ ]  Master’s [x]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | first |
| Number of ECTS allocated | 7 |
| Name of lecturer/lecturers | Dr Zorica Stojanović-Radić |
| Teaching mode |  [x] Lectures [ ] Group tutorials [x]  Individual tutorials [x] Laboratory work [x]  Project work [x]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Introducing students with basic groups of animal and plant microbial pathogens, their general characteristics, secondary metabolites and diseases they cause. As learning outcomes, the students will be able to recognize the most frequent causative agents of human, animal and plant diseases, and also to isolate and identify pathogenic agent. After the course, they will be qualified to work with pathogenic microorganisms, able to perform adequate processing and preservation of the pathogenic samples, and to utilize them for scientific purposes. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Interaction of microorganisms with other organisms – normal flora, oportunictic pathogens and pathogens. Microbial mechanisms of pathogenicity: entering the host, numbers of invading microbes, virulence and adherence. Damaging of the host cells: direct damage and production of toxins. Pathogenic features of viruses, fungi, algae and protozoa. Bacterial pathogens of humans and homeothermic animals. Plant pathogens. Viral pathogens. Fungal pathogens. Physical and chemical control of pathogenic microorganisms. Drug resistance. Biofilms. Methods of sampling and identification of pathogenic microorganisms. |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [x]  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** | **5** | **Written examination** | **35** |
| **Practical teaching** |  | **Oral examination** | **40** |
| **Teaching colloquia** | **20** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |