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| Course: | *SOIL MICROBIOLOGY* |
| Course id:3МЗИ1И13 |
| Number of ECTS:6 |
| Teacher: | Ass. Prof. Simonida Djuric, PhD |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures: 2 | Practical classes: 2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

Introduction to the role of microorganisms in the creation and maintenance of soil fertility, distribution of microorganisms in the soil and the factors that influence soil microbial activity |
| 1. Educational outcomes

The subject is the basis for understanding the process of pedogenesis, plant nutrition and fertilizer application |
| 1. Course content

Lectures:Soil as a natural habitat for microorganisms. Microbial activity in different types of soil. Microbial activity in stress conditions. Role of microorganisms in synthesis and mineralization of organic matter in soil. Mutual relationships between microorganisms. Mutual relationships between plant and microorganisms. Role of microorganisms in the cycles of N, C, P and S. Effect of agrotechnical and melioration measures on microbial process in soil.Practical classes:Isolation, growth and identification of bacteria, fungi, algae and protozoa. Isolation and determination of phylospheric and rhizospheric microorganisms from seed and fruit. Estimation of microbial number and activity in different types of soil. |
| 1. Teaching methods

Lectures and Practical classes, Consultations if needed. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 5 | *Oral part of the exam* | Yes | 50 |
| Test | Yes | 30 |  |
| Exercise attendance | Yes | 10 |
| Term paper | Yes | 5 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Alexander, M. | Soil microbiology | John Wiley & Sons, inc | 1961 |
|  | Eldor A. Paul | Soil Microbiology, Ecology and Biochemistry | Elsevier | 2014 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES: SOIL SCIENCE AND PLANT NUTRITION |
| Table 5.2 Course specification |