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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: ORGANIC AGRICULTURE |
| Table 5.2 Course specification |

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| Course: | ***Soil Fertility Management in Organic Farming*** |
| Course id: |
| Number of ECTS: 6 |
| Teacher: | prof. dr Maja, S., Manojlović; prof. dr Simonida, Đurić; mr Ranko, R., Čabilovski, dr Timea Hajnal-Jafari |
| 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/navesti ako ima |
| 1. Educational goal

The acquisition of expert and scientific knowledge about raising and maintaining of soil fertility and fertilizer application in organic production. |
| 1. Educational outcomes

A student who successfully completes the course "*Soil Fertility Management in Organic Farming* " will be able to apply the acquired knowledge in the agricultural practices, advisory services for organic production and in scientific work. |
| 1. Course content

*Theoretical instruction*Sources of nutrients for plants and losses. Soil quality and soil fertility. Biodiversity. Alignment of mineralization of organic matter with the nutrients uptake by plants. Measures for increasing the content of organic matter in the soil. Crop rotation. Cover crops. Fertilization. Organic fertilizer (plant origin, animal origin). Characteristics of organic fertilizers. Soil improvers. Commercial fertilizers. Application of microbiological fertilizers with the aim of providing plants with nitrogen, phosphorus and other nutrients. Application of microbiological fertilizers to accelerate the transformation of crop residues. Legislation.*Practical instruction*Field and laboratory exercises: indicators of soil quality. Visual indicators. Physical indicators. Biological indicators. Chemical indicators (soil reaction, soil organic matter content, the content of available phosphorus and potassium, cation exchange capacity, the concentration of heavy metals). Estimation of the mineralization potential of different organic materials. Isolation and characterization of microorganisms used in the production of microbial fertilizer. |
| 1. Teaching methods

Lectures, Practical classes, Consultations, research work, working in small groups and pairs. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 0 | *Oral part of the exam* | Yes | 50 |
| Laboratory research | Yes | 10 |  |
| Field research | Yes | 10 |
| Term paper | Yes | 30 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Maja Manojlović | Održiva poljoprivreda | Poljoprivredni fakultet Novi Sad | 2008 |
|  | Lampkin, N.H. | Organic Farming | Farming Press, Ipswich | 1994 |
|  | Havlin J.L. *et al.* | Soil fertility and fertilizers | Pearson education, Inc. Upper Saddle River, New Jersey | 2005 |
|  | Magdoff, F. and Van Es, H. | Building Soil for Better Crops, 2nd edition | University of Nebraska Press, Lincoln, NE | 2000 |
|  | Jarak, M.,Čolo J. | Mikrobiologija zemljišta | Poljoprivredni fakultet, Novi Sad | 2007 |
|  | Jarak, M., Đurić, S | Praktikum iz mikrobiologije | Poljoprivredni fakultet, Novi Sad | 2006 |