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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 |

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| Course: | ***Soil fertility and fertilization in intensive plant production*** |
| Course id:3МЗИ1И11 |
| Number of ECTS:6 |
| Teacher: | Prof.dr Darinka, M., Bogdanović; Prof. dr Maja, S., Manojlović; mr Ranko, R., Čabilovski |
| 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 professional knowledge and soil fertility and application of fertilizer in plant production. |
| 1. Educational outcomes

A student who successfully completes the course "Soil fertility and fertilizer application in intensive plant production" will be able to apply the acquired knowledge in agricultural practices, advisory services for plant production, as well as to continue further education in scientific work. |
| 1. Course content

*Theoretical instruction*Soil as a medium on which agricultural production takes place. Soil fertility as a prerequisite for intensive plant production. The system of soil fertility control. The fertilization based on system of soil fertility control. Principles of fertilization in intensive plant production. Application of fertilizer in crop production. Application of fertilizer in the fruit and grape production. Application of fertilizer in vegetable production (in the open field and protected area). Application of fertilizer in the production of flowers. Fertilization of green areas.*Practical instruction*Taking georeferenced soil samples in order to monitor the changes in soil fertility and the formation of soil information system- Fertilization recommendation plan (the amount of fertilizer, form and ration of nutrinnts in fertilizers, time and method of) within the soil information system- Calculation of amount of fertilizers for fertigation in the intensive plant production (in the furrows, spraying, artificial rain, drop by drop)- Fertilization recommendation plan for the fertilization of individual plant species. |
| 1. Teaching methods

Lectures, Practice/ Practical classes, Consultations |
| 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 | 25-50 |
| Test | No | 0 |  |
| Exercise attendance | Yes | 5-10 |
|  *Term paper* | Yes | 20-40 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Havlin, J.L. | Soil fertility and fertilizers | Pearson education, Inc. Upper Saddle River, New Jersey | 2005 |
| 2. | Magdoff, F. and Van Es, H. | Building Soil for Better Crops, 2nd edition | University of Nebraska Press, Lincoln | 2005 |
| 3. | Manojlović S. | Aktuelni problemi upotrebe đubriva sa posebnim osvrtom na mogućnosti zagađenja zemljišta i predlozi za njihovo korišćenje kroz uvođenje SKPZ i upotrebu đubriva | Agrohemija No 5-6, 383-442, Poljoprivredni fakultet, Novi Sad | 1988 |
| 4. | Kastori R., Bogdanović D., Kadar I., Milošević N., Sekulić P., Pucarević M | Uzorkovanje zemljišta i biljaka nezagađenih i zagađenih staništa. Monografija | Naučni institut za ratarstvo i povrtarstvo, Novi Sad | 2006 |
| 5. | Kastori R. | Monografija. «Azot agrohemijski, agrotehički, fiziološki i ekološki aspekti.» | Poljoprivredni fakultet, Novi Sad, | 2005 |
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| 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 professional knowledge and soil fertility and application of fertilizer in plant production. |
| 1. Educational outcomes

A student who successfully completes the course "Soil fertility and fertilizer application in intensive plant production" will be able to apply the acquired knowledge in agricultural practices, advisory services for plant production, as well as to continue further education in scientific work. |
| 1. Course content

*Theoretical instruction*Soil as a medium on which agricultural production takes place. Soil fertility as a prerequisite for intensive plant production. The system of soil fertility control. The fertilization based on system of soil fertility control. Principles of fertilization in intensive plant production. Application of fertilizer in crop production. Application of fertilizer in the fruit and grape production. Application of fertilizer in vegetable production (in the open field and protected area). Application of fertilizer in the production of flowers. Fertilization of green areas.*Practical instruction*Taking georeferenced soil samples in order to monitor the changes in soil fertility and the formation of soil information system- Fertilization recommendation plan (the amount of fertilizer, form and ration of nutrinnts in fertilizers, time and method of) within the soil information system- Calculation of amount of fertilizers for fertigation in the intensive plant production (in the furrows, spraying, artificial rain, drop by drop)- Fertilization recommendation plan for the fertilization of individual plant species. |
| 1. Teaching methods

Lectures, Practice/ Practical classes, Consultations |
| 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 | 25-50 |
| Test | No | 0 |  |
| Exercise attendance | Yes | 5-10 |
|  *Term paper* | Yes | 20-40 |
| Literature  |
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| 5. | Kastori R. | Monografija. «Azot agrohemijski, agrotehički, fiziološki i ekološki aspekti.» | Poljoprivredni fakultet, Novi Sad, | 2005 |
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