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| Course: | *Basic principles of crop production* |
| Course id:3ОRT3O014 |
| Number of ECTS: 6 |
| Teacher: | Prof. dr Dragiša MIlošev, Doc. dr Srđan Šeremešić |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures:3 | Practical classes:2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None/navesti ako ima |
| 1. Educational goal

The aim of this subject is to introduce students with the basic principles of crop management. Knowledge gained from this subject will help students to choose an adequate cropping system and to select appropriate management technology in crop production. |
| 1. Educational outcomes

Demonstrate the basic knowledge in selection of agro-technical measures, method and time of their application in crop production.  |
| 1. Course content

Soil tillage, importance and objectives of primary tillage. Plowing, disking, cultivating, harrowing and rolling, field cultivating (time, depth, methods, tools), seedbed preparation. The tillage system for winter, spring and stubble crops. Tillage systems by soil types (hydromorphic and halomorhpic). Conservation tillage. Fertilization, fertilizer and method and time of application. Rationale of cultivating plants in the feed. Fertilization with organic and mineral fertilizers. Crop rotation, crop rotation elements, the reasons for the introduction of crop rotation and preceding value of crop. Classification of crop rotation - arable crop rotations, special crop rotations. Grass farming system and the system of free cropping management, system of industrial farming, integrated farming, organic agriculture, intercropping. Weeds and their control, the definition and classification of weeds. Seed, sowing and planting, seed characteristics, preparation of seed for sowing, time, depth, method of sowing. Crop care, mechanical, physical and chemical measures. Water erosion and deflation and the factors that causing soil degradation. Agro-technical measures to combat erosion and deflation. *Practical classes*: Types of plowing and evaluation of primary tillage and seedbed preparation (stubble tillage, cultivators, disk harrow, harrowing and rollers). Fertilization time and method of fertilization, calculation of the necessary amount of nutrients in crop rotation, determination of the amount of crop residues. Crop rotation - planning, preparation and introduction of crop rotation. Identification of the most important weeds, weed propagation, life forms of weeds. Sowing and planting, seeding method. Determining the standards for seed sowing. . |
| 1. Teaching methods

Lectures, Practical classes, Consultations and Seminars.  |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | No | 5 | Oral part of the exam | Yes | 45 |
| Test | No | 20 |  |
| Exercise attendance | Yes |  |
| Practical classes oral exam  | Yes | 30 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Molnar I (Ed) | Crop rotation | Institut za ratarstvo I povrtarstvo Novi Sad | 1999 |
|  | Nosberger, J.Geiger, H. H.Struik, P. C. | Crop Science: Progress and Prospects  | CABI Publishing | 2001 |
|  | Adel El Titi | Soil Tillage in Agroecosystems | CRC Press | 2002 |
|  | Dragiša Milošev, Srđan Šeremešić | Agroecology (Handbook) | Faculty of Agriculture, UNS | 2010 |
|  | Craig C. Sheaffer Kristine M. Moncada | Introduction to Agronomy: Food, Crops, and Environment | Cengage Learning; 2 edition | 2011 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationUNDERGRADUATE STUDIES: CROP SCIENCE |
| Table 5.2 Course specification |