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| Course: | *Irrigation of agricultural crops* |
| Course id: 3ООП3О13 |
| Number of ECTS: 5 |
| Teacher:  | professor Borivoj Pejić, mr. Ksenija Mačkić |
| 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 |
| 1. Educational goal

Introducing students to the basic principles (agronomic aspects) of application of irrigation in production of field crops, vegetables, orchards and vineyards, lawns, flowers and ornamental plants (without negative consequences on soil properties and environment). |
| 1. Educational outcomes

Forming of academic experts for successful work in field crops, vegetables, orchards and vineyards, lawns, flowers and ornamental plants production in irrigated conditions. |
| 1. Course content

*Theoretical lectures*Introduction, history of irrigation. Problems that follow irrigation. Principles of rational irrigation. Factors that condition irrigation. Crop water requirements. Water balance and irrigation water requirements. Assessing quality of water for irrigation. Soil and water. Water availability for plants, irrigation rate and drought. Agronomic evaluation of irrigation methods. Irrigation scheduling.Irrigation of specific agricultural crops: field crops, vegetables, orchards and vineyards, lawns, flowers and ornamental plants. Irrigation and two harvests per year. Irrigations in greenhouses. Irrigation in frost protection and cooling watering. Exploitation elements of irrigated fields.*Practical classes*Soil sampling. Methods for soil moisture assessment. Determination of soil water constants. Determination of water and physical properties of the soil. Calculation of the amount of water in soil and irrigation rate. Construction of soil moisture characteristics curve - pF. Calculation of soil water balance and irrigation requirements. Determination of the irrigation schedule on the basis of every day calculation of water consumption trough plants evapotranpiration.  |
| 1. Teaching methods

Lectures, practical classes, consultations, research work |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes |  | Oral part of the exam | Yes | 60 |
| Test | Yes | 10 |  |
| Exercise attendance | Yes |  |
| Practical exam | Yes | 30 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Stewart, B.A. and Nielsen, D.R, Editors | Irrigation of Agricultural Crops | American Society of Agronomy, Crop Science Society of America, Soil Science Society of America Publishers, Madison, Wisconsin USA | 1990 |
|  | Lascano, R.J andSojka, R.E, Co-Editors | Irrigation of Agricultural CropsSecond edition | American Society of Agronomy, Crop Science Society of America, Soil Science Society of America Publishers, Madison, Wisconsin USA | 2007 |

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