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| Course: | **Оperations Research Methods in Agriculture** |
| Course id: |
| Number of ECTS: 6 |
| Teacher: | **Bojan M. Srdjevic (Teacher) / Bosko D. Blagojevic (Assistant)** |
| 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

Acquiring base knowledge on operations research methods and methodologies for working in agricultural engineering |
| 1. Educational outcomes

Skills in the field of optimization of resources allocation to fulfill requirements imposed to professional career of agricultural engineer |
| 1. Course content

*Theory*Introduction. Definitions. Classes of the operations research methods. Modeling and solving optimization problems. Standard techniques in operations research. Advanced methods.*Practice*Base definitions and classifications. Examples. Classes of methods. Solving optimization problems. Examples of applications (standard and advanced methods)  |
| 1. Teaching methods

Lectures, Practical classes, Consultations |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 10 | *Oral part of the exam* | Yes | 30 |
| Seminar paper | Yes | 50 |  |
| Exercise attendance | Yes | 10 |
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| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | J. Reeb, S. Leavengood | Using the simplex method to solve linear programming maximization problems, Oregon State University, Ext service | on-line http://extension.oregonstate.edu/catalog/pdf/em/em8720-e.pdf | 2013 |
| 2. | Srdjevic B., | Systems Analysis Methods in Engineering With Extensions in Environmental Engineering | Federal University of Bahia, Salvador, Brazil Lecture notes (in English) | 2003 |
| 3. |  |  | INTERNET SOURCES  |  |

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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 *WATER MANAGEMENT* |
| Table 5.2 Course specification |