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| Course id:3МАЕ2I16 | Decision Support Methods in Agribusiness  |
| Number of ECTS:6 |
| Teacher: | Bojan M. SrđevićZorica B. Srđević |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures:2x15 | Tutorials:2x15 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

Introduction to methods, instruments and computer programmes for individual and group decision making in agribusiness.  |
| 1. Educational outcomes

Students will be capable of modelling problems in agriculture and agribusiness and applying appropriate decision support methods. |
| 1. Course content

*Theoretical Instruction*Introduction. Methods, methodologies and decision making models. Decision making problems classification in agribusiness. Modelling and solving hierarchical decision making problems. Analytical hierarchical process (AHP). AHP application in agribusiness: planning, management, resource allocation. Group decision making and consistency. Decision consequences. Adaptive decision making with complete and incomplete information. *Practical Instruction* Examples of decision making methods and methodologies. Simple and complex cases. Modelling and solving hierarchical decision making problems using PROMETHEE, ELECTRE, TOPSIS and CP methods. Analytical hierarchical process (AHP), step by step solution. Examples of AHP application in agribusiness. Examples of group decision making in resource allocation within the wider context of agribusiness. Examples of robust decision making with complete and incomplete information. |
| 1. Teaching methods

Lectures, Consultations.  |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture attendance | Yes/No |  | *Oral Exam* | Yes | 30 |
| Test | Yes/No |  |  |
| Tutorials attendance | Yes/No |  |
| Seminar paper | Yes/No | 70 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Srdjevic B. | Systems Analysis Methods in Engineering with Extensions in Environmental Engineering | Federal University of Bahia, Salvador, Brazil | 2003 |
|  | Srdjevic B. | Informatika | Poljoprivredni fakultet Novi Sad | 1996 |
|  | Srđević B., Srđević Z., Zoranović T. | PROMETHEE, TOPSIS i CP u višekriterijumskom odlučivanju u poljoprivredi | Letopis naučnih radova 26 (1), 5-23 | 2002 |
|  | Srđević B. | Donošenje odluka pomoću analitičkog hijerarhijskog procesa | Tematski zbornik radova Melioracije | 2002 |
|  | Srđević Z., Srđević B., Potkonjak S., Zoranović T. | Alokacija zemljišta na biljne kulture u uslovima navodnjavanja i odvodnjavanja: višekriterijumski prilaz pomoću analitičkog hijerarhijskog procesa (AHP) | Tematski zbornik radova Melioracije i poljoprivreda, Poljoprivredni fakultet, Novi Sad, 222-239 | 2002 |
|  | Srđević B. | Višekriterijumski i društveni metodi odlučivanja u savremenoj poljoprivredi | Savremena poljoprivreda, Vol. 55 (5), 1-7 | 2006 |
|  | 6. Srđević B., Srđević Z., Zoranović T. | Višekriterijumske i glasačke tehnike u individualnom i grupnom odlučivanju | Savremena poljoprivreda, Vol. 55 (5), 153-159 | 2006 |