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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Economics |
| **GENERAL INFORMATION** |
| Study program  | **Finance, Banking and Insurance** |
| Study Module (if applicable) |  |
| Course title | Operational Research |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | Fourth |
| Number of ECTS allocated | 7 |
| Name of lecturer/lecturers | Milivoje PešićJelena Stanković |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [x]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Operational research is a joint name for a group of quantitative scientific methods aimed to define optimal solutions to a number of economic problems. The educational objective of this course is to provide knowledge concerning the characteristics of certain economic problems, mathematical models using which these problems can be presented and mathematical methods which will help to find their optimal solutions.**After become familiar with the contents of this course, students will be able to form a convenient mathematical model, for a large number of economic problems, knowing their characteristics, as well as to define and collect the necessary data, based on which will be able to find the optimal solution, using appropriate methods.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| *Linear programming; Solving linear problems; Simplex Method; Linear Algebra Review and Dantzig Algorithm; Duality in Linear Programming; Sensitivity Analysis; Integer Programming; Transportation Problems; Assessment Problems; Game Theory; Network Problems; Stock Models; Queuing theory;* |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [ ]  English (complete course) [ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)[x] Serbian with English mentoring [ ] Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **20** | **Written examination** |  |
| **Practical teaching** | **10** | **Oral examination** | **40** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |