

Course title: Introduction to Operational Research
Course code: 25046
ECTS credits: 5
Requirements: None
Basic information
Level of studies: Undergraduate applied studies
Year of study: 3
Trimester: 7
Goal: Mastering the most important quantitative methods of optimization and applying them in the real and financial sector, with emphasis on optimization of production programs and quantitative investment analyses, which are necessary for rational business and investment decisions.
Outcome: A student who successfully masters the requirements of the course will be able to: (1) apply quantitative methods on exact data in order to make optimal business decisions in various areas of the economy, (2) implement methods and techniques of investment portfolio valuation in order to optimize it.
Contents of the course
Theoretical instruction
1. Economic functions
2. Linear programming
3. Transport problem
4. Network programming
5. Inventory models
6. Game theory
7. Dynamic programming
8. Evaluation of investment portfolio
9. Making investment decisions in conditions of uncertainty and risk
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Solving case studies and using modern software tools.
Textbooks and References
1. Lacković, M. (2009) Matematički modeli i metodi u ekonomiji. Belgrade: Faculty of Economics

Number of active classes (weekly)
Lectures: 3
Practical classes: 2
Other types of classes: 0
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures: 10
Activities on practical exercises: 0
Seminary work:
Colloquium: 40
Final exam: Points
Written exam: 50
Oral exam:
Lecturer
Vitomir Radosavljević, PhD
Associate
Vitomir Radosavljević, PhD