(Table 5.2) Course unit description

Study program: **Business economics and management**				
Type and level of studies: **Master studies**				
Course unit: Quantitative Methods and Models in Economics				
Teacher in charge: Mimović Predrag				
Language of instruction: **English**				
ECTS:**8**				
Prerequisites:				
Semester: **Summer Semester**				
Course unit objective: The aim of the course is to provide students with modern mathematical models and methods of optimizing business and production decisions, as well as applying the available software.				
Learning outcomes of Course unit Students are enabled to use quantitative scientific methods to generate a realistic quantitative basis that will enable acceptance and optimum business decision making.				
Course unit contents Combined linear programming problems. Parametric linear programming – sensitivity analysis. Integer linear programming and application. Application of the theory of games in linear programming. Complex transport model problems. Network and Project Scheduling (Programming). Elements of probability theory. Markov chains and applications. Inventory models. Simulation. Dynamic programming. Practical lessons: seminar papers and presentation works.				
Literature 1. Albright, C.S, Winston, W.L., Management Science Modeling, South – Western, 2012. 2. Render, B., Stair, R.M., Hanna, M.E. Quantitative Analysis for Management, Pearson Education International, 2009. 3. Anderson, D.R., Sweeney, D.J., Williams, T.A. Quantitative Approaches to Decision Making, Thomson, South Western, 2003. 4. Render, B., Heizer, J., Operations Management, Prentice Hall, 2001.				
Number of active teaching hours				**Other classes**
Lectures 2	Practice 2	Other forms of classes	Independent work 4	
Teaching methods: Lectures. Consultations. Mentorship. Software Support - Excel OM.				
Examination methods (maximum 100 points)				
Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**	
Student's activity during lectures	5	Oral examination	30	
practical classes/tests	5	Written examination	30	
Seminars/homework	20			
Project	10			

Other		
Grading System		
Grade	**Bo. Of Points:**	**Description**
10	**91-100**	Excellent
9	**81-90**	Exceptionally good
8	**71-80**	Very good
7	**61-70**	Good
6	**51-60**	Passing
5	**0-50**	Failing