

**(Table 5.2) Course unit description**

Study program: Economics and Business Economics and Management			
Type and level of studies: Undergraduate studies			
<b>Course unit: Operational Research</b>			
<b>Teacher in charge: Predrag Mimović and Mikica Drenovak</b>			
Language of instruction: English			
ECTS: 7			
Prerequisites: Basic knowledge in mathematical calculus			
Semester: III			
<b>Course unit objective:</b> The objective of the course is to introduce concept of optimization and its wide applicability to solving problems from fields of Economics and Finance. It is to provide the quantitative base for informed decision making.			
<b>Learning outcomes of Course unit</b> Be able to understand concepts of optimization. Be able to derive models, both within deterministic and stochastic setup, which encompass different confronting objectives and constraints of a real problem. Be able to interpret solutions and make business decisions based on obtained solutions. Be able to apply ex-post sensitivity analysis.			
<b>Course unit contents</b> Linear programming-Simplex method Duality Theory Transportation and Assigning problem Game Theory Network optimization Models Inventory Theory Queueing Theory			
<b>Literature</b> Hillier, S.F. & Lieberman, G.J., 2005. Introduction to Operations Research 8 <sup>th</sup> edition. McGraw-Hill			
<b>Number of active teaching hours</b>			<b>Other classes</b>
Lectures 45 (15X3)	Practice 30 (15X2)	Other forms of classes	
<b>Teaching methods</b>			
<b>Examination methods (maximum 100 points)</b>			
<b>Exam prerequisites</b>	<b>No. of points:</b>	<b>Final exam</b>	<b>No. of points:</b>
Student's activity during lectures	5	theoretical +practical written examination	35
practical classes/tests	60		
Seminars/homework			
Project			
Other			
<b>Grading System</b>			
<b>Grade</b>	<b>Bo. Of Points:</b>		<b>Description</b>
<b>10</b>	<b>91-100</b>		Excellent
<b>9</b>	<b>81-90</b>		Exceptionally good
<b>8</b>	<b>71-80</b>		Very good
<b>7</b>	<b>61-70</b>		Good
<b>6</b>	<b>51-60</b>		Passing
<b>5</b>	<b>0-50</b>		Failing