

<b>Course title: Quantitative Methods in Economy</b>		
<b>Lecturer: Ljiljana Cvetković</b>		
<b>Course status: Required, First Semester</b>		
<b>ECTS: 12</b>		
<b>Requirement:</b>		
<b>Course aims</b> The aim is to enable the students to perform a comprehensive analysis so that, taking into account the nature of the problem, they may choose the appropriate methods and techniques for data processing and can present and interpret the results properly.		
<b>Course outcome</b> Understanding and mastering quantitative methods in business decision making and scientific research in economics.		
<b>Course content</b> <i>Theory classes</i> <i>Mathematical methods:</i> <ul style="list-style-type: none"> <li>➤ <i>Applied linear algebra in economics</i></li> <li>➤ <i>Dynamical systems - stability analysis</i></li> <li>➤ <i>Stochastic approach</i></li> <li>➤ <i>Risk investments modeling</i></li> </ul> <i>Statistical methods:</i> <ul style="list-style-type: none"> <li>➤ <i>Statistical tests</i></li> <li>➤ <i>Multiple regression</i></li> </ul> <i>Practice classes</i> <i>The exercises cover practical examples that follow the lecture.</i>		
<b>Recommended Literature:</b> <ol style="list-style-type: none"> <li>1. Cvetković Lj., <i>Poslovna statistika</i>. Futura publikacije, Novi Sad, 2006.</li> <li>2. Cvetković Lj., <i>Kvantitativne i kvalitativne metode za obradu podataka</i>. Symbol, Novi Sad, 2011.</li> <li>3. Cvetković Lj., <i>Finansijska matematika</i>. A Dizajn, Sarajevo, 2014.</li> <li>4. Cvetković Lj., NUMELA 1. Edicija "Tehničke nauke - udžbenici" 540, Fakultet tehničkih nauka, Novi Sad, 2015.</li> <li>5. Michael III Sullivan: "Statistics: Informed Decisions Using Data 2ed", Prentice Hall, 2007.</li> <li>6. Alan Agresti, Christine Franklin: "Statistics: The Art and Science of Learning From Data", Prentice Hall, 2007.</li> </ol>		
<b>Workload per week:</b>	Lectures: 4	Study research:6
<b>Teaching methods:</b> Theory classes accompanied by numerous examples. Independent work in exercises.		
<b>Knowledge assessment:</b> Scientific research – 40, Oral exam – 60		