

**(Table 5.2) Course unit description**

Study program: Economics and Business Economics and Management			
Type and level of studies: Undergraduate studies			
<b>Course unit: Financial and Actuarial Mathematics</b>			
<b>Teacher in charge: Mikica Drenovak and Zlata Djurić</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 models of financial mathematics together with models of actuarial mathematics which are used in financial and actuarial industry.			
<b>Learning outcomes of Course unit</b> Be able to understand basic concepts of interest calculus, time value of money and acquire knowledge related to concepts of investing. Be able to derive models which define different lending/borrowing obligations between market participants. Be able to understand concepts of actuarial mathematics and modeling requirements for life insurance products.			
<b>Course unit contents</b> Simple vs. Compounding interest-Discounting and compounding Investment models Annuities Loan redemption models: Investment loans, retail loans (equal repayments, equal installments), Lombard loans, Promissory notes Life insurance models			
<b>Literature</b> Benninga, S., 2000. Financial Modeling, The MIT Press. Cambridge, Massachusetts Redhead, K., 2003. Introducing Investments, FT Pearson Education Limited Rotar, I. Vladimir, 2007. Actuarial models, Taylor & Fransis Group, LLC			
<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	2	theoretical +practical written examination	30+30
practical classes/tests	2X19		
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