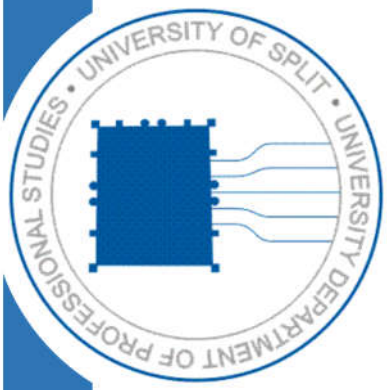
Course syllabus
Business Mathematics



COURSE DETAILS		
Type of study programme	Undergraduate professional study programme- 180 ECTS	
Study programme	BUSINESS TRADE	
Course title	Business Mathematics	
Course code	STP003	
ECTS (Number of credits allocated)	6	
Course status	Core	
Year of study	First	
Course Web site	https://moodle.oss.unist.hr/course/category.php?id=21	
Total lesson hours per semester	Lectures	30
	Practicals	30
Prerequisite(s)	None	
Lecturer(s)	Mathematics and Physics Unit: Renata Kožul Blaževski, univ. spec. oec., lecturer	

COURSE DESCRIPTION	
Course Objectives:	• understanding basic terms in the areas of business calculus and financial mathematics, • independently solving of business problems.
Learning outcomes ***On successful completion of this course, student should be able to:***	1. define basic terms in the areas of business calculus and financial mathematics, 2. explain basic methods of business calculus, types and methods of interest account and their basic applications in practice, 3. solve problems in the areas of business calculus, simple and compound interest account, use of compound interest account, loan and consumer credit, 4. discern effects of various types and methods of interest account, 5. connect acquired knowledge and skills with practical problems in economic practice.
Course content	Introduction. ***Basic business calculus:*** Ratios and proportions. Rule of three (simple and compound). Percentage calculus. Division calculus (simple and compound). Mixture calculus (simple and compound). Chain calculus. ***Basic interest account:*** Interest and interest rates. Simple interest account. Decursive and anticipative investment of money at interest. Compound interest account. Types of interest rates. ***Use of compound interest account:*** Final value of a single amount. Present value of a single amount. Final value of a series of periodic payments (withdrawals). Present value of periodic payments (withdrawals). Perpetuity. Continuous compouding. **Loan:** Basic terms and loan repayment table. Loan reprogramming or conversion. Intercalary interest. Loan repayment model of equal annuities. Loan repayment model of equal share payments. Incomplete or defective annuity. Loan repayment model with anticipative interest rates. Consumer credit.

CONSTRUCTIVE ALIGNMENT – Learning outcomes, teaching and assessment methods

Alignment of students activities with learning outcomes		
Activity	**Student workload ECTS credits**	**Learning outcomes**
Lectures	30 hours / 1 ECTS	1,2,4,5
Practicals	30 hours / 1 ECTS	3,4,5
Two mid-term exams (preparation and delivery)	60 hours / 2 ECTS	1,2,3,4,5
Self-study	48 hours / 1,6 ECTS	1,2,3,4,5
Office hours and final exam	12 hours / 0,4 ECTS	1,2,3,4,5
TOTAL:	**180 hours / 6 ECTS**	**1,2,3,4,5**

CONTINUOUS ASSESSMENT		
Continuous testing indicators	**Performance A_i (%)**	**Grade ratio k_i (%)**
First mid-term exam	50 - 100	30
Second mid-term exam	50 - 100	30
Theoretical exam (written)	50 - 100	40

FINAL ASSESSMENT		
Testing indicators – final exam (first and second exam term)	**Performance A_i (%)**	**Grade ratio k_i (%)**
Practical exam (written) - part one	50 - 100	30
Practical exam (written) - part two	50 - 100	30
Theoretical exam (written)	50 - 100	40
Testing indicators – makeup exam (third and fourth exam term)	**Performance A_i (%)**	**Grade ratio k_i (%)**
Practical exam (written) - part one	50 - 100	30
Practical exam (written) - part two	50 - 100	30
Theoretical exam (written)	50 - 100	40

PERFORMANCE AND GRADE		
Percentage	**Criteria**	**Grade**
50% - 61%	*basic criteria met*	sufficient (2)
62% - 74%	*average performance with some errors*	good (3)
75% - 87%	*above average performance with minor errors*	very good (4)
88% - 100%	*outstanding performance*	outstanding (5)

ADDITIONAL INFORMATION

Teaching materials for students (scripts, exercise collections, examples of solved exercises), teaching record, detailed course syllabus, application of e-learning, current information and all other data are available by MOODLE system to all students.