Annex No. 3		**Second Cycle Studies Subject Programme**			
1.	Title of subject	**Business analytics in insurance**			
2.	Code	**MO511**			
3.	Study programme	**Management in insurance**			
4.	Organizer of the study programme (university unit i.e., institute, chair, department)	Faculty of Economics - Skopje Ss. Cyril and Methodius University in Skopje			
5.	Level (first, second, third cycle)	Second cycle			
6.	Academic year / semester	2022/2023 1st semester (winter)	7.	Number of ECTS credits	6
8.	Professor	Assoc. Prof. Violeta Cvetkoska, PhD			
9.	Preconditions for enrolment	Completed first cycle of studies with obtained minimum of 240 credits.			
10.	Course Objectives (Competencies): After successful completion of the course, students will be able to: 1. understand the power of data and find opportunity in the numbers to generate a competitive advantage for insurance companies 2. understand how to analyze, model and visualize data to solve problems faced by insurance companies 3. to use popular analytical methods and techniques to support managerial decision-making in insurance 4. skillfully use known software tools to effectively solve real and complex problems in insurance 5. to analyze the obtained results in the context of the insurance industry				
11.	Course contents: Big data in the business world initiates the need to apply business analytics in insurance companies to improve their performance and achieve a competitive advantage. Business analytics as an area of business administration enables the transformation of data into insights based on which managers will make better and faster decisions. Business analytics are based on four pillars (descriptive, diagnostic, predictive and prescriptive analytics) which will be our subject of study with a special focus on their most popular methods and techniques. The aim of this course is for students to analyze, model and visualize real data sets with extensive application of software tools and to interpret the obtained results in the context of the insurance industry. 1. Overview of business analytics 2. Creating value from data with business analytics 3. Spreadsheet analytics 4. Data exploration with pivoting 5. Visualizing data with Power BI Desktop 6. Drill-down analysis 7. Forecasting techniques 8. Data mining 9. Business simulation – MonsoonSIM 10. Decision analysis 11. Optimization techniques				
12.	Learning methods: interactive lectures with presentations, problem solving exercises, team projects, individual tasks, home learning, student presentations, MonsoonSIM gamification. Softwares: 1. Excel and Excel add-ins (Analysis ToolPak and Solver (install by using the File tab (Options-Add-ins and check Analysis ToolPak and Solver) so they will show up in the Data Tab; StatTools (available at: https://www.palisade.com/stattools/default.asp (free 15 day trial versions) 2. Power BI Desktop (available at: https://powerbi.microsoft.com/en-us/desktop/ (free version) Business simulation and gamification platform: MonsoonSIM (http://www.monsoonsim.com/)				

13.	Total hours		6 ECTS x 30 classes = 180 hours		
14.	Distribution of the time at disposal		24+16+40+10+90=180 hours		
15.	Types of teaching activities	15.1.	Lectures		24 hours
		15.2.	Tutorials (laboratory, auditory), seminars, teamwork		16 hours
16.	Other types of activities	16.1.	Project assignments		40 hours
		16.2.	Individual assignments		10 hours
		16.3.	Self-study		90 hours
17.	Assessment methods: combination of tests, individual and group assessments 60+30+10 = 100 points				
	17.1.	Tests			60 points
	17.2.	Project assignments			30 points
	17.3.	Attendance and class participations			10 points
18.	Grading scale	up to 60 points		5 (five) (F)	
		from 61 to 68 points		6 (six) (E)	
		from 69 to 76 points		7 (seven) (D)	
		from 77 to 84 points		8 (eight) (C)	
		from 85 to 92 points		9 (nine) (B)	
		from 93 to 100 points		10 (ten) (A)	
19.	Preconditions for taking the final exam	Realized activities from items 15 and 16			
20.	Language	Macedonian			
21.	Evaluation method	Student questionnaire and other methods for continual selfevaluation.			

22. Literature

22.1. Mandatory literature

No.	Author	Title	Publisher	Year
1.	Cvetkoska, V.	*Business Analytics*	STOBI TREJD DOOEL	2022

22.2. Additional literature

No.	Author	Title	Publisher	Year
1.	Cochran, J. J. (ed.)	*INFORMS Analytics Body of Knowledge*	Wiley	2019
2.	Davenport, T. H. and Harris, J.	*Competing on Analytics: The New Science of Winning*	Harvard Business Review Press	2017
3.	Liebowitz, J. (ed.)	*Big Data and Business Analytics*	CRC Press	2013