

Subject program of the second cycle of studies						
1.	Title of the teaching course	<b>Business Analytics</b>				
2.	Code	MGT-523				
3.	Study program	<b>MBA Management</b>				
4.	Organizer of the study program (unit, i.e., institute, department)	St. Cyril and Methodius University in Skopje Faculty of Economics - Skopje				
5.	Degree (cycle of studies)	Second cycle				
6.	Academic year/semester	2022/23-2	7.	Number of ECTS	6	
8.	Professor	Prof. Dr. Violeta Cvetkoska				
9.	Prerequisites for enrolling in the course	First cycle of studies completed with at least 240 credits				
10.	Objectives of the subject program (competencies): 1. After successful completion of the course, students will be able to: to understand the power of data and find opportunity in the numbers that they will use to generate a competitive advantage for the business organization. 2. to understand how to analyze, model, and visualize data to solve business problems faced by business organizations. 3. to use popular analytical methods and techniques to support managerial decision-making. 4. skillfully use known software tools to solve real and complex business problems.					
11.	Content of the subject program: Big data in the business world initiates the need to apply business analytics in organizations 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 a suitable business context. 1. Overview of business analytics 2. Creating value from data with business analytics 3. Analytics using spreadsheets 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 (example methods): lectures with presentations, videos, lab sessions, interactive case studies, quizzes, guest lecturers, student presentations, MoonsoonSIM gamification Software packages: 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: <a href="https://www.palisade.com/stattools/default.asp">https://www.palisade.com/stattools/default.asp</a> (free 15 day trial versions) 2. Power BI Desktop (available at: <a href="https://powerbi.microsoft.com/en-us/desktop/">https://powerbi.microsoft.com/en-us/desktop/</a> (free version) Platform for business simulation and gamification: 1. MonsoonSIM ( <a href="http://www.monsoonsim.com/">http://www.monsoonsim.com/</a> )					
13.	Total amount of time available	6 ECTS x 25 classes = 150 classes				
14.	Allocation of available time	40+10+100 = 150 classes				

15.	Forms of teaching activities	15.1.	Lectures-theoretical teaching	40
		15.2.	Tutorials (laboratory, classroom), seminars, and teamwork	10
16.	Other forms of activities	16.1.	Project tasks	30
		16.2.	Independent tasks	30
		16.3.	Home study	40
17.	Method of assessment			60+30+10 = 100 points
	17.1.	Tests		60 points
	17.2.	Seminar work/project (presentation: written and oral)		30 points
	17.3.	Activity and participation		10 points
18.	Evaluation criteria (points/grade)	less than 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.	Signature requirements and passing the final exam	Realized activities from points 15 and 16		
20.	Language of instruction	Macedonian language		
21.	A method of monitoring the quality of teaching	Internal evaluation and survey		
22.	Literature			
	22.1.	Required literature		
	No.	Author	Title	Publisher
	1.	Cvetkoska, V.	Business Analytics	(in preparation)
	Year	2022		
22.2.	Additional literature			
	No.	Author	Title	Publisher
	1	Cochran, J. J. (ed.)	INFORMS Analytics Body of Knowledge	Wiley
	2.	Davenport, T. H. and Harris, J.	Competing on Analytics: The New Science of Winning	Harvard Business Review Press
	Year	2017		
	3.	Liebowitz, J. (ed.)	Big Data and Business Analytics	CRC Press
	Year	2013		