Ann	ex No. 3	Second Cycle Studies Course Programme					
1.	Course Title	Financial Econometrics					
2.	Code	STM 517					
3.	Study programme	Statistical Methods for Business and Economics					
4.	Organizer of the study	Ss. Cyril and Methodius University in Skopje Faculty of Economics - Skopje					
	programme (university						
	unit i.e., institute,						
	chair, department)						
5.	Level (first, second,	Second cycle					
	third cycle)						
6.	Academic year /	First year /	7.	Number of ECTS	6		
	semester	Second (summer)		credits			
		semester					
8.	Professor	Prof. Vladimir Filipov	ski, PhD				
0	<b>D</b>	Prof. Dragan Tevdovski, Ph.D.					
9.	Preconditions for	Completed first cycle studies with at least 240 ECTS credits					
10	enrolment	• • •					
10.	Course Objectives (Co	mpetencies):					
	Students will acquire kn	owledge and skills to:					
	• differentiate betwee	n models of statistical p	rocesses,				
	• use univariate autor	egressive moving average	ge models,	,			
	• use multivariate aut	oregressive models – ve	ctor autore	egressive models (VAR),	,		
	• test the stationarity	of financial time series,					
	• analyze the models	of long-term equilibriur	n between	financial series by using			
	cointegrated variabl	es and VAR					
	• analyze the volatilit	y of financial variables	and the aut	tocorrelation in financial	time series		
	by the autoregressiv	e conditional heterosce	dastic (AR	CH) models.			
11.	Course contents:						
	Autoregressive processe	es in financial time serie	c				
			3				
	• Partial autocorrelati	on function					
	Autoregressive mov	ing average (ARMA) p	rocesses				
	Forecasting with ARMA models						
	Vector autoregressive (VAR) models						
	<ul> <li>Long-run relationships in finance</li> <li>Stationarity and unit root tests</li> <li>Cointegration</li> <li>Error correction explicit medals</li> </ul>						
	Error correction equilorium models						
	• Johannsen technics for testing and estimation based on Vector autoregressive models						
	Modelling volatility and correlation						
	Autoregressive models of volatility						
	Autoregressive cond	litional heteroscedastic	models of	volatility (ARCH model	s)		
	Generalized autoreg	ressive conditional hete	roscedasti	c models of volatility (G	ARCH		
	models)						
	Different variations	of GARCH models					
10	Looming matheday int	mantina lastomas		to filmo anno de l'	th LCS and		
12.	DowerPoint	stactive lectures, quizz	es, projec	is, mins, supported wit	in LCS and		

14	Total hours		6 ECTS x 25 classes = 150 classes					
	Allocation of hou	irs	40+10+25+30+45=150 classes					
	per activity							
15.	Types of teaching	3	15.1.	Lectures		40 classes		
	activates		15.2.	Exercises (Seminar	rs)	10 classes		
16.	Other types of		16.1.	Project assignment	S	25 classes		
	activities		16.2.	Individual assignm	ents 30 classes			
			16.3	Home study		45 classes		
17.				Grading method: 60+30+10=100 points				
	17.1.	'	Tests (Domain, Essay	, Multiple choice	60%			
			exam, Case)		30%			
	17.2.		Individual assignment	/ project				
	17.0		(presentation)		100/			
	17.3.		Attendance and class	participations	10%			
18.	Grading scale			less than 50	5 (five) (F)			
				points				
				from 51 to 60	6 (six) (E)			
				points				
				from 61 to 70	7 (seven) (D)			
				from 71 to 80	8 (eight) (C)			
				noints				
				from 81 to 90	9 (nine) (B)			
				points				
				from 91 to 100	10 (ten) (A)			
				points				
19.	Preconditions for	taking	the final exam	from points 1	5 and 16			
20.	Language			Macedonian (or English)				
21	Evaluation metho		Internal evaluation and survey					
21.	Evaluation metho	od		Internal evaluation	and survey			
21.	Literature	od		Internal evaluation	and survey			
21.	Literature	od Comp	ulsory literature	Internal evaluation	and survey			
21.	Literature	od Comp No.	ulsory literature Author	Internal evaluation	and survey Publisher	Year		
21.	Literature	Comp No.	ulsory literature Author	Title	Publisher	Year		
21.	Literature	Comp No. 1.	ulsory literature Author Chris Brooks	Internal evaluation Title Introductory Econometrics for	Publisher Cambridge University	Year 2014		
21.	Literature 22.1	Comp No.	ulsory literature Author Chris Brooks	Internal evaluation Title Introductory Econometrics for Finance	Publisher Cambridge University Press	Year 2014		
21.	Literature 22.1.	Comp No. 1. 2.	ulsory literature Author Chris Brooks Taylor S. G.	Internal evaluation Title Introductory Econometrics for Finance Asset Price	Publisher Cambridge University Press Princeton	Year 2014 2005		
21.	Literature 22.1.	Comp No. 1. 2.	ulsory literature Author Chris Brooks Taylor S. G.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics	And survey Publisher Cambridge University Press Princeton University	Year 2014 2005		
21.	Literature 22.1.	Comp No. 1. 2.	ulsory literature Author Chris Brooks Taylor S. G.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and	and survey Publisher Cambridge University Press Princeton University Press	Year 2014 2005		
21.	Literature	Comp No. 1. 2.	ulsory literature Author Chris Brooks Taylor S. G.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction	Publisher Cambridge University Press Princeton University Press	Year 2014 2005		
22.	Literature	Comp No. 1. 2.	ulsory literature Author Chris Brooks Taylor S. G.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction	and survey Publisher Cambridge University Press Princeton University Press	Year 2014 2005		
22.	Literature 22.1.	Comp No. 1. 2. Additi	ulsory literature Author Chris Brooks Taylor S. G.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction	and survey Publisher Cambridge University Press Princeton University Press Press	Year 2014 2005		
22.	Literature	Comp No. 1. 2. Additi No.	ulsory literature Author Chris Brooks Taylor S. G. onal literature Author	Internal evaluation         Title         Introductory         Econometrics for         Finance         Asset Price         Dynamics         Volatility and         Prediction	and survey Publisher Cambridge University Press Princeton University Press Press	• Year 2014 2005		
22.	Literature       22.1.	Comp No. 1. 2. Additi No. 1.	ulsory literature Author Chris Brooks Taylor S. G. onal literature Author Tsay, R. S.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction Title Analysis of Einancial Time	and survey Publisher Cambridge University Press Princeton University Press Press University Press Proceeding	<ul> <li>Year</li> <li>2014</li> <li>2005</li> <li>Year</li> <li>&amp; 2005</li> </ul>		
22.	Literature 22.1.	Comp No. 1. 2. Additi No. 1.	ulsory literature Author Chris Brooks Taylor S. G. onal literature Author Tsay, R. S.	Internal evaluation         Title         Introductory         Econometrics for         Finance         Asset Price         Dynamics         Volatility and         Prediction         Title         Analysis of         Financial Time         Saries (Financial)	and survey Publisher Cambridge University Press Princeton University Press Press University Press	Year 2014 2005 2005		
22.	Literature 22.1.	Comp No. 1. 2. Additi No. 1.	ulsory literature Author Chris Brooks Taylor S. G. onal literature Author Tsay, R. S.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction Title Analysis of Financial Time Series (Financial Econometrics)	and survey Publisher Cambridge University Press Princeton University Press Press Independent	Year 2014 2005 2005		
22.	Literature     22.1.     22.2.	Comp No. 1. 2. Additi No. 1.	ulsory literature Author Chris Brooks Taylor S. G. onal literature Author Tsay, R. S.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction Title Analysis of Financial Time Series (Financial Econometrics)	and survey Publisher Cambridge University Press Princeton University Press Proceton John Wiley Sons Princeton	<ul> <li>Year</li> <li>2014</li> <li>2005</li> <li>Year</li> <li>&amp; 2005</li> <li>Year</li> <li>&amp; 2005</li> </ul>		
22.	Literature 22.1.	Comp No. 1. 2. Additi No. 1. 2.	ulsory literature Author Chris Brooks Taylor S. G. Taylor S. G.	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction Title Analysis of Financial Time Series (Financial Econometrics) The Econometrics of	and survey Publisher Cambridge University Press Princeton University Press  Publisher John Wiley Sons Princeton University	Year 2014 2005 2005 Year & 2005 1997		
22.	Literature 22.1. 22.2.	Comp No. 1. 2. Additi No. 1. 2.	ulsory literature Author Chris Brooks Taylor S. G. onal literature Author Tsay, R. S. Cambell, J. Y., Lo, A. W.,	Internal evaluation Title Introductory Econometrics for Finance Asset Price Dynamics Volatility and Prediction Title Analysis of Financial Time Series (Financial Econometrics) The Econometrics of Financial	and survey Publisher Cambridge University Press Princeton University Press  Publisher John Wiley Sons Princeton University Press	<ul> <li>Year</li> <li>2014</li> <li>2005</li> <li>Year</li> <li>&amp; 2005</li> <li>1997</li> </ul>		

	3.	Selected articles	
		and case studies	