

Annex No. 5		Second Cycle Studies Course Programme			
1.	Course Title	Economics and Policies of Digitalization			
2.	Code	EDIF 550			
3.	Study programme	Postgraduate studies in Economic Development and International Finance			
4.	Organizer of the study programme (university unit i.e. institute, chair, department)	Ss. Cyril and Methodius University in Skopje Faculty of Economics – Skopje			
5.	Level (first, second, third cycle)	Second cycle of studies			
6.	Academic year / semester	First year/second (spring) semester	7.	Number of ECTS credits	6
8.	Professor	Prof. Borce Trenovski, PhD			
9.	Preconditions for enrolment	Completed first cycle of studies with at least 240 ECTS credits			
10.	<p>Course Objectives (Competencies): The teaching should enable conceptual training for analysis of the theoretical and practical implications of the modern processes of digitalization and automation in the world and the fundamental approaches in the economic policies related to digitalization. Upon completion of the course, students should be able to:</p> <ol style="list-style-type: none"> 1. understand the processes of automation and digitalization and how those processes radically change our lives, ways of working, and relationships. 2. understand the significance of the four industrial revolutions for the global economy and their impact on human development. 3. analyze the possibilities and threats of the fourth industrial revolution in terms of computerization of the manufacturing industry and equipping the production with the highest technology. 4. monitor the advancement of computing power and the development of information technology in terms of computer memory capacity and the amount of digital information that can be transmitted over fiber-optic cables. 5. follow the great technologies of the new digital age and the conditions they create – from artificial intelligence to biotechnologies, advanced materials to quantum computers. 6. understand the importance of general-purpose technologies in accelerating economic progress. 7. understand theoretical concepts (theories) and their evolution in explaining the nature and processes of digitalization. 8. understand the dominant digitalization strategies in the world. 9. analyze the importance of individual policies related to the digitalization of society and the implications of their implementation. 10. explore the interactions of digitalization and economic growth. 11. explore the impacts of new technologies on the labor markets, the operation of companies, and the functioning of the state. 12. be aware of the weaknesses of digitalization and the threats it poses to society as a whole. 13. explore international experiences from the application of various policies of digitalization, innovation, and entrepreneurship. 14. analyze the implications of the implementation of digitalization policies in the Republic of North Macedonia. 				
11.	Course content: <ol style="list-style-type: none"> 1. Introduction – What is digitalization? 				

	<ol style="list-style-type: none"> 2. Historical context – The four industrial revolutions and their contribution to the global economy 3. The power of information technology 4. Features of new digital technologies and industries 5. Principles and concepts of digitalization 6. Theories and models of digitalization 7. Digitalization strategies 8. Digitalization policies 9. Digitalization and economic growth 10. Weaknesses and threats of digitalization 11. Digitalization policies in selected developed and developing countries 12. Digitalization policies in the Republic of North Macedonia 				
12.	Learning methods: Lectures, interactive teaching, quizzes, projects, movies supported by LCD and Power Point.				
13.	Total hours	6 ECTS x 25 classes = 150 classes			
14.	Allocation of hours per activity	40+10+25+30+45 = 150 classes			
15.	Types of teaching activates	15.1.	Lectures-theoretical teaching	40 classes	
		15.2.	Exercises (laboratory, auditory), seminars, teamwork	10 classes	
16.	Other types of activities	16.1.	Project assignments	25 classes	
		16.2.	Independent Assignments	30 classes	
		16.3.	Homework	45 classes	
17.	Grading method: 60+30+10=100 points				
	17.1.	Tests	60 points		
	17.2.	Individual work/project (with presentation)	30 points		
	17.3.	Attendance and class participations	10 points		
18.	Grading scale	less than 50 points	5 (five) (F)		
		from 51 to 60 points	6 (six) (E)		
		from 61 to 70 points	7 (seven) (D)		
		from 71 to 80 points	8 (eight) (C)		
		from 81 to 90 points	9 (nine) (B)		
		from 91 to 100 points	10 (ten) (A)		
19.	Preconditions for taking the final exam	Realized activities from points 15 and 16			
20.	Language	Macedonian			
21.	Evaluation method	Internal evaluation and survey			
22.1.	Compulsory literature				
	No.	Author	Title	Publisher	Year
	1.	Shane Greenstein (Author, Editor), Avi Goldfarb (Author, Editor), Catherine Tucker (Author, Editor)	<i>The Economics of Digitization</i>	Edward Elgar Pub	2013

		2.	Michael Vogelsang	<i>Digitalization in Open Economies: Theory and Policy Implications (Contributions to Economics)</i>	Springer-Verlag Berlin Heidelberg	2010
		3.	Jannick Schou, Morten Hjelholt	<i>Digitalization and Public Sector Transformations</i>	Springer International Publishing; Palgrave Macmillan	2018
		4.	Mirela Mărcuț	<i>The Governance of Digital Policies: Towards a New Competence in the European Union</i>	Palgrave Pivot	2020
		5.	Harald Øverby, Jan A. Audestad	<i>Digital Economics: How Information and Communication Technology is Shaping Markets, Businesses, and Innovation</i>	CreateSpace Independent Publishing Platform	2018
		6.	Richard B. McKenzie	<i>Digital Economics: How Information Technology Has Transformed Business Thinking</i>	Praeger	2003
		7.	Eric Brousseau (Editor), Nicolas Curien (Editor)	<i>Internet and Digital Economics: Principles, Methods and Applications</i>	Cambridge University Press	2008
		8.	Avi Goldfarb, Catherine Tucker	<i>Digital Economics</i>	American Economic Association	2019
		Additional literature				
		No.	Author	Title	Publisher	Year
	22.2.	1.	Avi Goldfarb (Editor), Shane M. Greenstein (Editor), Catherine E. Tucker (Editor)	<i>Economic Analysis of the Digital Economy (NBER Conference Report)</i>	University of Chicago Press	2015
		2.	Erik Brynjolfsson (Editor), Brian Kahin (Editor)	<i>Understanding the Digital Economy: Data, Tools, and Research</i>	The MIT Press	2002