

Prerequisite(s)

Course Language

None

Turkish

Меѓународен Универзитет Визион - International Vision University Universiteti Ndërkombëtar Vizion - Uluslararası Vizyon Üniversitesi

Adres: Ul. Major C. Filiposki No.1, Gostivar – Makedonya tel: +389 42 222 325, www.vizyon.edu.mk, info@vizyon.edu.mk

SYLLABUS

DE		
13 3	180	6
	13 3	

Course Language	TUIKISII	
Course Type	Elective	
Course Level	First Cycle	
Course Lecturer		
Course Assistants		
Classroom		
Extra Curricular	Meeting:	
Office Hours and	Consultancy:	
Location		
Course Objectives	This course is an introduction to the economic analysis of science and technology.	
Course Objectives	Attention is mostly focused on the microeconomics of innovation, even though	
	important macroeconomic subjects will be covered as well.	
Course Learning	The students who succeeded in this course;	
Outcomes	Will be able to explain the process of scientific and technological innovation;	
	the economic mechanisms at work during the production of new technology, and its adoption by the rest of the society; the role of scientific and technological advancement in shaping economic and social outcomes. • Will be able to explain the process of knowledge spillovers and technology transfer between economic agents, their importance and their magnitude. • Will be able to discuss the mechanisms of technology transfer into developing nations, and nations that are not positioned on the world's technology frontier (both cases apply to Turkey). • Will be able to interpret the current economic issues with the economics of technology and management of innovation and technology. • Will be able to draw policy implications for the current economic issues with the economics and management of innovation and technology. • Will be able to elaborate the output of the frontier of economic research on science and technology, and the debates therein. • Will be able to evaluate the problems with the quantification of scientific and technological knowledge.	
	 Will be able to use the existing data of knowledge creation and knowledge 	
	transfer in empirical works on knowledge, science and technology.	
Course Contents	Scientific and technological advances are among the most important determinants of economic growth, and the human condition at large. Invention is as old as humanity itself, and it has shaped the economic and social history of ancient humans as well as	

modern societies. This class starts by covering a brief history of modern invention, with special attention to the Industrial Revolution, and the evolution of some important industries.

Then, the student is introduced to the contemporary economic literature on scientific and technological innovation. Starting with the problems of the measurement of scientific and technological output, the course covers important topics in the field, giving priority to empirical problems. Knowledge spillovers are covered with some detail, including their measurement, and mechanisms that cause and facilitate spillovers. The material covered here lends itself naturally to the diffusion and adoption of new technology, and the geography of invention, both of which are adopted as part of the class. We then cover in detail the usage of patents as the "data" for economic studies. The course ends with treatments of endogenous growth models, the effects of competition on innovation, and a discussion of the Schumpeterian Hypothesis.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Historical background	Related Chapters of Course Sources
2	Issues with the measurement of innovation	Related Chapters of Course Sources
3	Returns to R&D and patenting	Related Chapters of Course Sources
4	Knowledge Spillovers, Pt. 1: Introduction and a review of the literature	Related Chapters of Course Sources
5	Knowledge Spillovers, Pt. 2: Scientific mobility and networks	Related Chapters of Course Sources
6	Knowledge Spillovers, Pt. 3: FDI and the geography of invention	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	The diffusion of technology	Related Chapters of Course Sources
9	Patent statistics as the data of invention	Related Chapters of Course Sources
10	Endogenous growth models, Pt.1	Related Chapters of Course Sources
11	Endogenous growth models, Pt.2	Related Chapters of Course Sources
12	Innovation and competition	Related Chapters of Course Sources
13	Schumpeterian hypothesis and some related themes	Related Chapters of Course Sources
14	Additional topic (Optional and Time Permitting)	Related Chapters of Course Sources
15	Final Exam	Related Chapters of Course Sources

ECTS / WORKLOAD TABLE

Presentation / Seminar			
Hours for off-the-classroom study (Pre-study, practice)	14	3	42
Midterm Exam	1	12	12
Final examination	1	14	14
Total Work Load			
ECTS	6		

GENERAL PRINCIPLE RELATED WITH COURSE

Dear students,

In order to be included, learn and achieve full success that you deserve in the courses you need to come well prepared by reading the basic and secondary textbooks. We are expecting from you carefully to obey to the course hours, not to interrupt the lessons unless is very indispensable, to be an active participant on the courses, easily to communicate with the other professor and classmates, and to be interactive by participating to the class discussions. In case of unethical behavior both in courses or on exams, will be acting in framework of the relevant regulations. The attendance of the students will be checked in the beginning, in the middle or at the end of the lessons. Throughout the semester the students who attend to all lectures will be given 15 activity-attendance points in addition to their exam grades.

SOURCES

	COMPULSORY LITERATURE			
No	No Name of the book Author's Name, Publishing House, Publication Ye			
1	Dijital Ekonomi	Don Tapscott Koç Sistem		
2	The Economics of Industrial Innovation	Chris Freeman and Luc Soete, The MIT Press		
	(Third Edition)			
3	Harvard Business School Press	Carl Shapiro, Hal Varian ,Information Rules, 1999		

ADDITIONAL LITERATURE			
No	Name of the book	Author's Name, Publishing House, Publication Year	
1	Bilgi Toplumu Sürecinde Çalışma Yaşamı Dijital Teknolojiler Boyutuyla	Orhan Koçak, Ekin Kitabevi Yayınları	
2	Innovation and Incentives	Suzanne Scotchmer, , The MIT Press. (3) Dominique Foray, The Economics of Knowledge, The MIT Press	
3	Re-Thinking the Network Economy	Liebowitz Stan, AMACOM, 2002	

EVALUATION SYSTEM

Underlying the Assessment Studies	NUMBER	PERCENTAGE OF GRADE
Attendance/Participation	15	%10
Project / Event	1	%20
Mid-Term Exam	1	%35
Final Exam	1	%35
TOTAL	17	%100

ETHICAL CODE OF THE UNIVERSITY

In case of the students are cheating or attempt to cheat on exams, and in the case of not to reference the sources used in seminar studies, assignments, projects and presentations, in accordance to the legislations of the Ministry of Education and Science of Republic of Macedonia and International Vision University, will be applied the relevant disciplinary rules. International Vision University students are expected never to attempt to this kind of behavior.