

Course Profile - Department of Economics

Course Number: ECO 574	Course Title: Economics of Networks
Required / Elective : Elective	Pre / Co-requisites : None
Catalog Description: This course will focus on the economics of networks	Textbook / Required Material : Course Pack – readings from journal articles
Course Structure / Schedule : 3+0 +0 / 6 ECTS	
<p>Extended Description: In this class, we will focus on social networks and on the relationships between people. The starting premise of the course is simple: the actions we do are interdependent. This means when we try to understand an event, we look into the entity consisting of individuals and at the linkages connecting people. The course then aims to improve our understanding the causes and consequences of the patterns of relationships between individuals. Topics will include game theory, the structure of the Internet, the small-world puzzle (six degrees of separation), the strength of weak ties, centrality, data collection, and the spread of diseases and fads, random and scale free networks.</p> <p>Course Plan:</p> <p>Weeks 1 and 2: Introduction to Networks: Networks everywhere</p> <p>Week 3: Network Fundamentals</p> <p>Week 4: Graph theory</p> <p>Week 5: Centrality and Prestige, Betweenness</p> <p>Week 6: Term exam 1</p> <p>Week 7: Small World Experiments, Six degrees separation</p> <p>Week 8: Network Formation: Random networks</p> <p>Week 9: Network Formation: Power law and Scale-free networks</p> <p>Week 10: Term exam 2</p> <p>Week 11: Structural equivalence in networks: roles and positions</p> <p>Week 12: Network resilience and network economy</p> <p>Week 13: Presentation of term assignments</p> <p>Week 14: Wrap up for final exams</p>	
Design content : None	Computer usage: Minimal
<p>Course Outcomes: By the end of this course, students will be able to:</p> <ol style="list-style-type: none"> 1. Grasp how the social networks prevail over resources and opportunities within economic units, such as households and firms. [3, 7] 	

3. Understand the benefits and costs of social networks in economic transactions [5, 6, 10]

Relevant Program Outcomes

3. Acknowledging that there exist different schools of thought in the discipline of economics and appreciating, for example, that there may be differences of opinion about the role of the state in economic life.

5. Apprehending the professional and ethical responsibilities

6. Apply statistical methods, calculus and similar methods in data analysis, Comprehend problems on humanities and social sciences and make inferences on solutions

10. Effective communication skills by using written, verbal and visual tools

Recommended reading:

Teaching methods

Lecture, In class discussion

Assessment methods:

Attendance:5 %

Assignments: 15%

Midterms:35 %

Final Examination:45%

Contribution of Course Learning Outcomes to Program Outcomes

	Program Outcomes	Level of Contribution*				
		1	2	3	4	5
1	To comprehend fundamental economic concepts, to be able to utilize those in main economic problems, avoid mistakes as employee, employer, consumer and citizen due to common misconceptions regarding fundamental economic concepts		X			
2	To comprehend growth,inflation, interest rates, foreign exchange rates, foreign investments and foreign trade in Turkish economy					
3	Acknowledging that there exist different schools of thought in the discipline of economics and appreciating, for example, that there may be differences of opinion about the role of the state in economic life					
4	Understanding the set/matrix of relations in the global world economy and the role of international organizations within these relation;and also analyzing the costs and benefits of mutual dependence among countries.				X	
5	Apprehending the professional and ethical responsibilities, recognizing the importance and implications of occupational security			X		
6	Apply statistical methods, calculus and similar methods in data analysis, Comprehend problems on humanities and social sciences and make inferences on solutions					X
7	Recognize the diversity in cultures, belief systems and life styles, question information using logical induction and deduction					
8	Ability to model the equilibrium dynamics in markets, analyze, abstract, synthesize and interpret information					

9	The ability to work, take initiative and lead in multidisciplinary teams				X	
10	Effective communication skills by using written, verbal and visual tools				X	
11	The ability to recognize life long education and participate in it as a student as well as an educator			X		
12	Preparing reports which evaluate the economy on sectoral and macro bases; assessing critically the publications related to the economy; being capable of identifying the dynamics of and following the developments in the market, stock exchange markets, exchange rate markets, supply and demand; collecting and analyzing data on different fields of economics and interpreting them using statistical and econometric techniques and required software programs; equipping with good skills of presenting the findings; efficient note taking; asking the necessary questions to achieve, utilize and transfer information.		X			
13	Apprehending the role and importance of environment and environmental sustainability					
Level of Contribution* 1= Least 5 = Highest						
Student Workload/ECTS (European Credit Transfer System) Tableau:						
Activity:	Number:	Total Workload (hour):				
Pre- reading	14	30				
Lectures	14	45				
Reading	14	40				
Assignments	10	30				
Examinations	2	5				
TOTAL 150 hrs/25 = 6 ECTS						
Prepared by: SR				Revision Date : 23.03.2014		