UNIVERSITY OF PIRAEUS

1) GENERAL

SCHOOL	ECONOMICS, BUSINESS AND INTERNATIONAL STUDIES		
ACADEMIC UNIT	ECONOMICS		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**ΟΚΔΚΤ04**	**SEMESTER**	4
COURSE TITLE	**NETWORK AND TELECOMMUNICATIONS ECONOMICS**		
INTEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**	
Lectures	4	5	
COURSE TYPE	SCIENTIFIC EXPERTISE		
PREREQUISITE COURSES	NONE		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	**https://eclass.unipi.gr/courses/OEP263/**		

2) LEARNING OUTCOMES

Learning Outcomes

The aim of the course is to introduce students to the innate characteristics of network industries (telecommunications, electricity, etc) that make network goods differ from conventional goods and services. According to Shy (2001) these characteristics are: (a) network externalities; (b) complementarity, compatibility and standards; (c) switching cost and lock-in effects; and (d) significant economies of scale in production. The combination of such characteristics makes the decision-making
process quite complex, which implies that a better understanding of such network industries is required for dealing with complexity.

The telecommunications market (mobile telephony, fixed telephony, internet access) is perhaps the most representative example of network industries, while at the same time it is one of the most dynamically evolving markets as it is directly intertwined with technological progress. In the context of this course, the evolution of the telecommunications market will be presented through the use of economic models, whereas the role of regulatory authorities in shaping competition and attracting investment in new network infrastructures will be analyzed.

Upon successful completion of the course, students are expected to be capable of:

- Identifying and analyzing network industries
- Recognizing the reasons that network industries should be examined and analyzed in a specific context compared to the analysis of conventional goods
- Evaluating and estimating the probability of success of a new network technology or a new network good
- Assessing the characteristics of network goods in order to make strategic decisions from a firm and consumer perspective
- Analyzing the telecommunications market using economic models
- Understanding the reasons why each telecommunications market (mobile telephony, fixed telephony, internet access) requires a specific analysis
- Recognizing the role of regulatory authorities in promoting competition and investment

General Competences

- Adapting to new situations
- Decision-making
- Individual/Independent work
- Working in an interdisciplinary environment

- Development of free, creative and inductive thinking

3) SYLLABUS

The course covers in depth the following thematic units, which are distributed based on the material taught on a weekly basis:

1. Introduction to the network economy
2. Network externalities and positive feedback
3. Complementarity and compatibility
4. Standardization
5. Lock-in and switching costs
6. Economies of scale in production
7. The telecommunications market
8. Telecommunications as a network good
9. The evolution of the fixed communications market
10. The evolution of the mobile communications market
11. The evolution of the internet market
12. The role of regulators

4) TEACHING and LEARNING METHODS

DELIVERY	In-class lectures
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Use of ICT in teaching, as well as in communicating with students: • Use of projector for presenting the course content • Presentations, notes, announcements and general information are uploading to the course's website on the e-class platform • Frequent communication with students via email and e-class platform
TEACHING METHODS	

Activity	**Semester workload**
Lectures	52
Exercises	36
Study	35
Exam	2
Total	125

STUDENT PERFORMANCE EVALUATION	• Attendance at the course is optional, as well as the completion of any assignments/exercises that may be assigned. • Successful completion of the course requires a passing grade during the course evaluation. • The evaluation of the course is implemented through a final examination (multiple-choice questions, short essays, problem-solving questions) and a writing essay, which is presented and discussed in the classroom. • The language of evaluation is the Greek language
ATTACHED BIBLIOGRAPHY	Suggested bibliography: • Carl Shapiro & Hal Varian (2002), "Information Rules: A Strategic Guide to the Network Economy", Kastaniotis Editions S.A. (Eudoxus code: 16989) Related scientific journals: • International Journal of Industrial Organization • Journal of Industrial Economics • Review of Network Economics • B.E. Journal of Economic Analysis and Policy • Information Economics and Policy • Telecommunications Policy