

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Economics, Business and International Studies		
ACADEMIC UNIT	Department of Economics		
LEVEL OF STUDIES	Graduate		
COURSE CODE	ΕΔΟΠ19	SEMESTER	1st
COURSE TITLE	Game theory applications in tax and tariff problems		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures		3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Special background, specialised		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	https://eclass.unipi.gr/courses/		

(2) LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

The course adopts a modern game theoretic approach to analyse situations where two or more conflicting interests meet. Emphasis is given to those cases where at least one of the participating players' objectives coincide with the (partial) optimisation of social welfare.

Game theory has been developed into a formal, distinct discipline only recently, in the 1950's. Nevertheless, the importance of its application to economic and social sciences was immediately, widely recognised; the relatively high number of Nobel prizes awarded to game theorists testifying to the truth of the argument.

Nowadays, it is considered as one of the crucial tools available to both the theorist and the

practitioner alike who seek to optimise their objective functions amidst uncertainty, inflationary pressures, taxes and tariffs on trade. It may be used for an in depth understanding of market trends and players' reactions to future evolution of events, thus leading to decision and policy making.

The course aims at explaining, in a concise way, the rationale of game theory and its role in the design of models with a view to approximating real situations of public economic interest with reasonable accuracy. The course will be taught in an autonomous way and technical details that could interfere with its flow are to be omitted. The course will be based, almost exclusively, on recent research articles of the instructor's choice. Therefore, the following bibliography is only indicative.

Following the completion of the course, students are expected to develop the following skills:

knowledge:

- ✓ understanding of the basic principles of Game theory and its application on problems of economic interest
- ✓ awareness to choose alternative solution concepts depending on the situation at hand

ability:

- ✓ to construct an appropriate model given the tax and/or tariff problem they intend to study
- ✓ to take decisions with a view to regulating the market as a result of a game theoretic analysis

responsible and autonomous thinking:

- ✓ to analyse a social policy by means of an appropriate game theory model weighing objectively consequences and repercussions for social welfare

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	Project planning and management
Adapting to new situations	Respect for difference and multiculturalism
Decision-making	Respect for the natural environment
Working independently	Showing social, professional and ethical responsibility and sensitivity to gender issues
Team work	Criticism and self-criticism
Working in an international environment	Production of free, creative and inductive thinking
Working in an interdisciplinary environment	
Production of new research ideas	Others...
	

- Understanding the nature of conflicting behaviours – strategies – of social interest
- Adaptability to new situations
- Analysis driven decision making
- Working both independently and in teams
- Critical thinking
- Promote free, creative and inductive thinking

(3)SYLLABUS

Specifically, the content of the course is outlined as follows:

<u>Week</u>	<u>Subject Matter</u>
1st	Game theory; introductory concepts.
2d	Static and dynamic games. Dominance and equilibrium.
3d	Bargaining games.
4th	Case study of privatisation policy implementation.
5th	Case study of urban planning vs public policy
6th	Case study of protective tariff policy implementation.
7th	Case study of tax-driven FDI policy.
8th	Case study of state-sponsored research in selected fields.
9th	Case study of policy design against fraud and corruption.
10th	Problems freely suggested by the students.

(4)TEACHING and LEARNING METHODS - EVALUATION

DELIVERY Face-to-face, Distance learning, etc.	Distance learning							
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students	• Use of I.C.T in teaching • Use of e-class for the communication with the students and the provision of teaching material							
TEACHING METHODS The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS	Activity	Semester workload						
	Lectures	91						
	Project(s)	30						
	Study	27						
	Exams	10						
	Course total	158						
STUDENT PERFORMANCE EVALUATION Description of the evaluation procedure Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other Specifically-defined evaluation criteria are given, and if and where they are accessible to students.	<table><tr><td>Team project / preentation</td><td>60%</td></tr><tr><td>Final written exams</td><td>40%</td></tr><tr><td>Total</td><td>100%</td></tr></table> The student performance evaluation will be based on individual or team project students will be assigned and the taking of a final written exam in Greek at the end of the term. The evaluation criteria will be made known to the students during the course lectures and via the e-page of the course on eclass.		Team project / preentation	60%	Final written exams	40%	Total	100%
Team project / preentation	60%							
Final written exams	40%							
Total	100%							

(5)ATTACHED BIBLIOGRAPHY

- *Suggested bibliography:*

1. Σταματόπουλος Γ., (2015). *Θεωρία Παιγνίων*, Σύνδεσμος ελληνικών ακαδημαϊκών βιβλιοθηκών.
2. *Straffin P.D. (2004). Game Theory and Strategy*, The Mathematical Association of America.
3. *Krepps D., (1990). Game Theory and Economic Modelling*, Oxford University Press.
4. *Osborne J.M. (2010). Εισαγωγή στη Θεωρία Παιγνίων*, Εκδόσεις Κλειδάριθμος..