UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Economiche, Aziendali e Statistiche
ACADEMIC YEAR	2021/2022
MASTER'S DEGREE (MSC)	ECONOMIC AND FINANCIAL SCIENCES
SUBJECT	INDUSTRIAL ORGANISATION
TYPE OF EDUCATIONAL ACTIVITY	B
AMBIT	50493-Economico
CODE	15519
SCIENTIFIC SECTOR(S)	SECS-P/06
HEAD PROFESSOR(S)	TESORIERE ANTONIO Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	111
COURSE ACTIVITY (Hrs)	39
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	**TESORIERE ANTONIO** Tuesday 15:30 17:30 https://teams.microsoft.com/l/team/19%3Ae61c893aa2e844c3bceddaee200bb0f0%40thread.tac conversations?groupId=89c318c6-7437-405c-88ef-2e08e1602869&tenantId

DOCENTE: Prof. ANTONIO TESORIERE

PREREQUISITES	I assume the student knows the basic elements both of Economic Analysis and of Mathematics. I do not assume the student knows Game Theory. But if s/he has already done Game Theory, then s/he may want to go over the Nash Equilibrium and the Subgame Perfect Nash Equilibrium.
LEARNING OUTCOMES	I want the student to understand all the topics in the syllabus, and to be able to use the models and the techniques s/he has studied during my course to describe an industry. Given a model in reduced form, I want the student to understand from which oligopoly model it might result. I want the student to be able to use the comparative statics of these models to make predictions.
ASSESSMENT METHODS	To evaluate the student I will do an oral examination. I will ask no less than three general questions, that is questions about topics or subtopics of the syllabus. For instance: Stackelberg equilibrium, market power and excess of entry, and so on. I want the student to discuss the topic in a clear, competent, and formally rigorous way. I do not require the student to write down the entire model or to go through computations, but I want the student to explain rigorously the fundamental steps and to interpret the results. I will also ask specific questions, that is questions about the fundamental points underlying the results. For instance: what is the relation between stability and comparative statics of the Cournot equilibrium? Under which conditions does a Stackelberg leader overproduce? If the student discusses even only one general topic in a satisfactory way, s/he gets from 18 to 22. As s/he discusses more topics s/he gets a larger mark. If the student cannot explain a single point about every general topic, then s/he will not pass the exam.
EDUCATIONAL OBJECTIVES	The course is an introduction to industrial organization that follows Tirole's book and some more recent contributions. It focuses on oligopoly pricing, but it also deals with other topics like perfect competition and durable good monopoly.
TEACHING METHODS	I will give 18 classes, of two hours each, and do some exercise sessions.
SUGGESTED BIBLIOGRAPHY	Materiale distribuito a lezione + - Farrell, J., & Shapiro, C. (1990). Horizontal mergers: an equilibrium analysis. The American Economic Review, 107-126. ISSN 1944-7981 - Fudenberg, D., & Tirole, J. (1991). Game theory. 1991. Cambridge, Massachusetts, 393. ISBN 9780262061414 - Mankiw, N. G., & Whinston, M. D. (1986). Free entry and social inefficiency. The RAND Journal of Economics, 48-58. ISSN 1756-2171 - Mas-Colell, A., Whinston, M. D., & Green, J. R. (1995). Microeconomic theory (Vol. 1). New York: Oxford University press. ISBN 10: 0195073401 - Salant, S. W., Switzer, S., & Reynolds, R. J. (1983). Losses from horizontal merger: the effects of an exogenous change in industry structure on Cournot-Nash equilibrium. The Quarterly Journal of Economics, 185-199. ISSN 1531-4650 - Sundaram, R. K. (1996). A first course in optimization theory. Cambridge University press. ISBN 9780521497190 - Tesoriere, A. (2017). Stackelberg equilibrium with multiple firms and setup costs. Journal of Mathematical Economics, 73, 86-102. ISSN 3044068 - Tirole, J. (1988). The theory of industrial organization. MIT press. ISBN-10 0262200716 - Varian, H. R. (1992). Microeconomic analysis. ISBN 0393090361 - Vives, X. (2001). Oligopoly pricing: old ideas and new tools. MIT press. ISBN 026272040X, 9780262720403 - Whinston, M. D. (1990). Tying, Foreclosure, and Exclusion. The American Economic Review, 837-859. ISSN 1944-7981 - Whinston, M. D. (2008). Lectures on antitrust economics. MIT Press Books. ISBN 9780262232562

SYLLABUS

Hrs	Frontal teaching
3	Introduction. The syllabus. Perfect competition and welfare in partial equilibrium. Welfare implications of market power.
2	Linear monopoly pricing. The inverse elasticity rule. Comparative statics. Market power and welfare loss. The effect of commodity taxation. Multiproduct monopoly.
4	Introduction to Dynamic Programming. Dynamics and state variables. Base problem and examples. The Principle of Optimality. The Bellman equation. Euler equation and envelope.
4	Dynamic monopoly. Rental prices. A two period example of intertemporal price discrimination. Infinite horizon and the Coase conjecture.
3	Overview of the Nash Equilibrium. Existence. Strategic substitutability and complementarity.
2	Price competition with homogeneous goods and the Bertrand model.
1	Price competition with capacity constraints. Rationing rules. Choice of capacity followed by price competition.

SYLLABUS

Hrs	Frontal teaching
9	The Cournot model. Stability and comparative statics. Applications: A first look at indutry structure and welfare. Concentration. Horizontal mergers. Free entry and social inefficiency.
2	Sequential games and the Subgame Perfect Nash Equilibrium
6	Commitment and entry: The Stackelberg model; entry deterrence; extensions and the determinants of market structure; business strategies.