



# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Economiche, Aziendali e Statistiche
ACADEMIC YEAR	2020/2021
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	<b>TESORIERE ANTONIO</b> Tuesday    15:00    17:00 <a href="https://teams.microsoft.com/l/team/19%3ae61c893aa2e844c3bceddaee200bb0f0%40thread.tac%20conversations?groupId=89c318c6-7437-405c-88ef-2e08e1602869&amp;tenantId">https://teams.microsoft.com/l/team/19%3ae61c893aa2e844c3bceddaee200bb0f0%40thread.tac%20conversations?groupId=89c318c6-7437-405c-88ef-2e08e1602869&amp;tenantId</a>

**DOCENTE:** Prof. ANTONIO TESORIERE

<b>PREREQUISITES</b>	I assume the student knows the basic elements of the two courses Economic Analysis and Mathematics. I do not assume the student knows Game Theory. But if s/he has done Game Theory when doing Economic Analysis, then s/he may want to go over the Nash Equilibrium and the Subgame Perfect Nash Equilibrium.
<b>LEARNING OUTCOMES</b>	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.
<b>ASSESSMENT METHODS</b>	<p>To judge the student I will make 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, tacit collusion with imperfect monitoring, 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.</p> <p>I will also ask specific questions, that is questions about the fundamental points underlying the results. For instance: what is the relation between the stability and the comparative statics of the Cournot equilibrium? Why does a Stackelberg leader that produces a strategic substitute produce more than when it best replies to its opponent?</p> <p>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.</p>
<b>EDUCATIONAL OBJECTIVES</b>	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 durable good monopoly and vertical relations.
<b>TEACHING METHODS</b>	I will give 15 classes, of two hours each, and three exercise sessions, of three hours each.
<b>SUGGESTED BIBLIOGRAPHY</b>	<p>Materiale distribuito a lezione +</p> <ul style="list-style-type: none"> <li>- Farrell, J., &amp; Shapiro, C. (1990). Horizontal mergers: an equilibrium analysis. The American Economic Review, 107-126.</li> <li>- Fudenberg, D., &amp; Tirole, J. (1991). Game theory. 1991. Cambridge, Massachusetts, 393.</li> <li>- Mankiw, N. G., &amp; Whinston, M. D. (1986). Free entry and social inefficiency. The RAND Journal of Economics, 48-58.</li> <li>- Mas-Colell, A., Whinston, M. D., &amp; Green, J. R. (1995). Microeconomic theory (Vol. 1). New York: Oxford University press.</li> <li>- Salant, S. W., Switzer, S., &amp; 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.</li> <li>- Sundaram, R. K. (1996). A first course in optimization theory. Cambridge University press.</li> <li>- Tirole, J. (1988). The theory of industrial organization. MIT press.</li> <li>- Varian, H. R. (1992). Microeconomic analysis.</li> <li>- Vives, X. (2001). Oligopoly pricing: old ideas and new tools. MIT press.</li> <li>- Whinston, M. D. (1990). Tying, Foreclosure, and Exclusion. The American Economic Review, 837-859.</li> <li>- Whinston, M. D. (2008). Lectures on antitrust economics. MIT Press Books.</li> </ul>

## SYLLABUS

<b>Hrs</b>	<b>Frontal teaching</b>
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	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.
3	Dynamic price competition and tacit collusion. Supergames. Secrete price cuts.
1	Price competition with capacity constraints. Rationing rules. Choice of capacity followed by price competition.
4	The Cournot model. Stability and comparative statics. Applications: Exogenous mergers. Merger analysis. Free entry and social inefficiency.
2	Sequential games and the Subgame Perfect Nash Equilibrium

## SYLLABUS

Hrs	Frontal teaching
5	Commitment and entry: The Stackelberg model; entry deterrence; extensions and the determinants of market structure; business strategies.
1	Vertical relations. Double marginalization
Hrs	Practice
3	Exercise session 1: Bertrand and Cournot
3	Exercise Section 2: Subgame Perfect Nash Equilibrium
3	Exercise Section 3: Applications