



UNIVERSITÀ
CATTOLICA
del Sacro Cuore

Industrial Organization

PROF. STEFANO BOCCALETTI; PROF. ELENA CASTELLARI

Industrial Organization and the Food System

PROF. STEFANO BOCCALETTI

Course aims and intended learning outcomes

The course covers the firm's strategic behaviour in imperfectly competitive markets. The attention is mainly devoted to the theoretical underpinnings of the models. The course begins with the study of the behaviour of firms under specific market structures and gives way to the analysis of advanced topics in industrial organization. The students are presumed to be familiar with the standard content of an undergraduate microeconomics course.

Upon successful completion of the course, students will be able to explain how price and non-price competition among firms affect market conditions and welfare as well as how market structure affects strategies. Moreover, they will apply the theoretical methods learnt in class to practically relevant problems.

Course content

Topics	CFU
Introduction to IO. Monopoly and monopsony power	1
Price discrimination: linear pricing; non-linear pricing.	1
Product variety and quality: spatial approach to horizontal product differentiation; vertical product differentiation; reputation and information; asymmetric information; advertising.	0.5
Collusion: the cartel's dilemma; repeated games.	0.5
Strategic behaviour and exclusionary strategies: entry deterrence; limit pricing; predatory pricing.	1
Vertical integration and vertical restraints: double marginalization; vertical integration with perfect competition downstream; restraints on intra-brand competition; mergers.	1
Market structure: determinants; strategic analysis of industries; food industry.	0.5
Antitrust policy: remedies and penalties, competition policies in the agro-food industry.	0.5

Reading list

Primary textbook

L. PEPALL-D. RICHARDS-G. NORMAN, Industrial Organization, 5th ed., Blackwell Publishing, 2014.

Other reference books

D.W. CARLTON-J.F. PERLOFF, Modern Industrial Organization, 4th ed. (alternatively consult the second Italian edition).

For each topic, further papers and other materials will be indicated.



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Teaching method

Lectures, during which the course topics will be developed with a theoretical approach supported by the use of multimedia tools, through which students will be guided through the most challenging parts of the course, such as the construction of graphs and the development of mathematical steps. Upon completion of each topic the instructor will interact with the classroom leaving space for any requests of clarification.

The presentations used in the classroom, as well as the bibliographic references, will be made available in advance on the Blackboard platform. A file constantly updated with the description of the topics and the bibliography of each lesson will also be prepared and posted on Blackboard.

Assessment method and criteria

One assignment worth 15%, a preliminary test, worth 15% and a final examination, worth 70%, all written.

The assignment and the preliminary test scores last one academic year.

The questions include exercises, simple graphical and mathematical proofs. The score attached to each question may change depending on the test. The assessment is intended to provide a sufficiently precise measure of the student's learning and to offer to the instructor a grasp of the student's skills and abilities to apply methodological instruments to explain the functioning of imperfectly competitive markets.

Notes and prerequisites

Professor Stefano Boccaletti will receive students after classes or by appointment.

'Economic fundamentals of the agri-food system' as well as 'Strategic decision making' are prerequisites for this module, although not formally required.

Strategic Decision Making

PROF. ELENA CASTELLARI

Course aims and intended learning outcomes

The goal of this course is to provide a systematic approach for identifying effective strategies and to predict the outcomes of strategic interactions. This course uses game theory to study incentives and strategic behavior in practical situations of decision making. The course will develop basic theoretical concepts along with applications from a variety of areas, prioritizing applications to business and economics. At the end of the class students will be able to understand the use of game theory to approach standard economic models of industrial organization, as well real situations characterized by strategic interactions.

Course Content

Topics	CFU
Normal and extensive form games. Nash equilibrium. Pure and mixed strategies.	1



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Simultaneous move games. Dominant and dominated strategies. Games of perfect and imperfect information.	1
Sequential Games. Sub-game Perfect Nash Equilibria.	1
Economic applications	1

Reading list

The material covered during class, will be provided to you through blackboard, you are required to register to the class to get access to the full material. The material posted on-line includes the class notes.

There will be no required textbook for this class. However, for the material covered in class you can refer to the following books:

Main Reference books

P.K. DUTTA. Strategies and Games: Theory And Practice, MIT 1999.

J. WATSON, Strategy: An Introduction to Game Theory, (3rd Edition) W.W. Norton, 2013.

Other reference books:

R. GIBBONS, Game Theory for Applied Economists, Princeton University Press, 1992.

A. DIXIT-S. SKELTH-D.H. RILEY, Games of Strategy (4th Edition), W.W. Norton, 2015.

Teaching method

The course consists of four credits of lectures, equal to 28 hours. Lectures will cover theoretical concepts and will use real case studies to strengthen the use of game theory to describe strategic interactions. Students will also work in groups on assignments to get prepared for the final exam.

Assessment method and criteria

Students will be evaluated only on a final examination which consists on a written exam. The written exam includes exercises covering the material of the program. The grade of each problem will depend on the specific exam. The grade will reflect student's knowledge of the program as well as the ability of using game theory on framing practical applications. During the course students will be provided with assignments which can be solved in group. The purpose of the assignments is only to train for the final exam and they will not be considered on the final evaluation.

Notes and prerequisites

Prior courses in microeconomics and mathematics are helpful but not required.

Professor Elena Castellari will receive students after classes or by appointment (elena.castellari@unicatt.it).