UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Ingegneria		
ACADEMIC YEAR	2021/2022		
MASTER'S DEGREE (MSC)	MANAGEMENT ENGINEERING		
INTEGRATED COURSE	INDUSTRIAL ORGANISATION & STRATEGY AND BUSINESS GAME		
CODE	21676		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	ING-IND/35		
HEAD PROFESSOR(S)	PERRONE GIOVANNI	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	PERRONE GIOVANNI	Professore Ordinario	Univ. di PALERMO
CREDITS	15		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	Annual		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	**PERRONE GIOVANNI** Friday 15:00 17:00 Studio del docente. Gli studenti possono contattare il docente via email quando desiderano e riceveranno il supporto richiesto e/o appuntamento		

DOCENTE: Prof. GIOVANNI PERRONE

PREREQUISITES	Microeconomics basis: Demand, Supply, Long and short period costs, Scale economies, Consumption theory and consumer surplus, Market equilibrium and market structures, Perfect competition, monopoly
LEARNING OUTCOMES	Knowledge and understanding The student, at the end of the first module, will acquire knowledge and methods to address and resolve, in an original way, any strategic issues. The student will be able to analyze the strategic behavior of firms in the markets, to formulate original and innovative strategic processes and assess their impact on corporate performance with reference to the actions of competitors and the structure of markets. The student, at the end of the second module, will acquire knowledge and methodologies to design, develop and evaluate business models in different industrial contexts. The student will be able to understand the effectiveness of a business model through a critical analysis of the same. Applying knowledge and understanding The student will acquire knowledge and methodologies to analyze and solve typical strategic action issues. He/she will be able to formulate strategies, modeling the effect of interdependence, identify strategic action output and assess its consequences in relation to original and innovative contexts. Furthermore, the student, through the development of applied case studies, will acquire applied knowledge to make business and/or managerial decisions needed to develop a start-up. Making judgments The student will acquire a methodology for the analysis of strategic contests, i.e. the game theory; through this method he will be able to deal with unstructured problems and make decisions under uncertainty regime. Through the methodological approach acquired during the course, he will be able to model complex problems in the strategic game. Moreover, he/she will acquire a methodology for the analysis of business models and their execution, and will be able to make business decisions independently and in groups. Communication skills The student will be able to communicate with competence and propriety of language complex issues of Industrial Organisation also in highly specialized contexts. He/she will be also able to communicate with property language aspects of business models to the audience of the different shareholders and stakeholders. The student will have acquired the ability to propose own ideas and activities in the group, thus using means to influence group members to change their leadership behaviour (Leadership). Learning skills The student will be able to cope independently in any matters related to Industrial Organisation. It will be able to explore complex issues such as collusion, the antitrust policy, the policy of regulated markets, and so forth. The student will develop learning ability in the development of a business model of a company or a start-up. He/she will be able to learn autonomously operational modes in industrial environments not studied in class.
ASSESSMENT METHODS	The evaluation consists of two intermediate scores one for each module. The evaluation of the first module, Industrial Organization and Strategy (9 ECTS) is based on 4 different tests: • Discussion of a case study in classroom (15%); • Group business context in classroom (20%) • Written exam (30%) • Oral exam (35%). Discussion of a case study in classroom. The instructor assigns to the student an article in a business/management newspaper. The student prepares a Power Point presentation of max 10 minutes outlining the case, framing it in the chapter of the theory studied, provides a critical analysis and responds to pre-assigned questions. The case study allows evaluating the student's ability to communicate, to express business concepts, to frame real cases studied into theory, to learn the managerial conducted in real cases. Group business context in classroom. Students are divided into groups of 4-5. The business context is intended to simulate a situation in which a consulting company (one group) presents to a client company (the other group) a consulting study on the analysis and proposals of M&A strategies for the customer. Each student plays a role within the group. The two groups confront each other in two different sessions (reversing roles) of 20 minutes each + 10 minutes of questions and answers. The business context is used to assess: the knowledge acquired during the course, the practical ability to use statistical data and tools to make strategic decisions. It is also useful to evaluate soft skills such as decision-making and autonomy capacity, teamwork skills, leadership skills. In addition, the business context allows students to develop synthesis and critical analysis capabilities.

	Written exam. The written test consists of a strategic problem, usually taken from an actual case, in which the student must demonstrate the ability to model the strategic problem by using the tool of game theory, to apply the knowledge about the studied strategies, to develop synthetic reasoning about managerial decisions. The written test is also used to assess the student's degree of knowledge about the program and the student's ability to shape strategic problems with the help of game theory. Oral exam. During the talk, we start by discussing the case study previously prepared by the student; the exam evolves by discussing various aspects, connected to each other, concerning the topics covered during the course. The interview is aimed to assess the student's ability to connect various topics studied in the course, to develop a strategic thinking, to have a vision of managerial problems for strategic choices. The interview also serves to determine any gaps that emerged in the first three tests. The mid-term evaluation of the first module is an overall assessment that takes account of all the tests described in the percentages shown above. The evaluation of the second module, Business Game (6 credits), consists of the following tests: • Real case study of a business model (80%) • Business games (20%). Real case study of a business model. Students are divided into groups of 4-5. They are assigned a real case study of a start-up. Students are asked to represent the business model of start-ups through the Canvas method and to carry out a critical analysis. Students present to the teacher the analysis of the business model through a single and group presentation. The real case study is used to evaluate how student learnt about the Canvas method and their ability to use it to make a critical analysis of a real case. Business game. Students are divided into groups of 4-5 and they take part in a business game in which simulate the implementation of a business model. The business game is used to assess the execution skills of what they have learned. The game business is also used to assess soft skills such as the ability to work in a team, the ability to make decisions under stress, the leadership skills. The evaluation of the second module is an overall assessment that accounts for abovementioned test in the percentages shown above. The final evaluation takes into count the two interims with weights 60% respectively for the first module and 40% for the second. The student gets one of the following evaluations: Excellent 30-30 cum laude. The student shows an excellent understanding of the topics studied, excellent properties of language, excellent modeling capabilities, excellent ability to frame real arguments in the studied theory, excellent ability to bind the arguments with each other and develop a critical analysis in the field of business strategies and models, excellent ability to use quantitative tools to make business decisions. The student during the course developed autonomy and good interpersonal skills and leadership. Very good 26-29. The student shows an excellent understanding of the topics studied, excellent properties of language, good modeling ability, good ability to frame real arguments in the studied contexts, good ability to bind the arguments with each other and develop a critical analysis in the field of business strategies and models, good ability to use quantitative tools to make business decisions. The student during the course developed autonomy and interpersonal skills and leadership. Good 24-25. The student shows a good understanding of the topics studied, good properties of language, satisfactory modeling capacity, satisfactory capacity to frame real arguments in the studied contexts, satisfactory ability to bind the arguments with each other and develop a critical analysis in the areas of business strategies and models, satisfactory ability to use quantitative tools to make business decisions. The student, during the course, has improved its autonomy and its interpersonal skills and leadership. Satisfactory 21-23. The student shows satisfactory knowledge of the topics studied, satisfactory properties of language and modelling and satisfactory capacity to frame real arguments in the studied contexts. The student shows scarce ability to bind the arguments between them and develop a critical analysis in the field of business strategies and models, nor ability to use quantitative tools to make business decisions. The student, during the course, did not improve its autonomy and its interpersonal skills and leadership. Sufficient 18-20. The student shows sufficient knowledge of the subject studied, sufficient properties of language, sufficient capacity of modelling problems. The student shows no ability to frame real arguments in the studied contexts, and no ability to tie the topics to each other and to develop a critical analysis in the field of business strategies and models, nor ability to use quantitative tools to make business decisions. The student, during the course, did not improve its autonomy and its interpersonal skills and leadership. Not sufficient. The student highlights of not having the minimum knowledge of the topics studied in the course; he/she expresses using unsatisfactory language properties, and highlights not to have acquired sufficient capacity of modelling business problems.

TEACHING METHODS	Frontal lecturers, Exercitation, Case study discussion in classroom, Business context in classroom, Business game

MODULE
INDUSTRIAL ORGANISATION & STRATEGY

Prof. GIOVANNI PERRONE

SUGGESTED BIBLIOGRAPHY

•G. Perrone, Ingegneria dei Mercati & Strategie, Forthcoming;
•Lista dei casi di studio e di ricerca
•J. Church & R. Ware, Industrial Organisation – A Strategic Approach, McGraw-Hill International
•O. Shy, Industrial Organization: Theory and Application, The MIT Press;
•Luis M. B. Cabral, Introduction to Industrial Organisation, The MIT Press;
•M. R. Baye, Managerial Economics and Business Strategy, McGraw-Hill International

AMBIT	50368-Ingegneria gestionale
INDIVIDUAL STUDY (Hrs)	144
COURSE ACTIVITY (Hrs)	81

EDUCATIONAL OBJECTIVES OF THE MODULE

The course provides students with knowledge and tools for the critical analysis of competitive markets and for the formulation of competitive strategies. The first part of the course provides preliminary information about the structure of competitive markets and the analytical tools that can be used for this purpose. The second part of the course provides the methodological tool for the analysis of strategic behavior, that is the “game theory”. The third part of the course analyzes several competitive strategies and their strategic impact on competitive markets. The course analyzes the strategic behavior from three points of view: the management point of view, through the discussion of case studies; the methodological point of view, through the use of game theory models; the empirical point of view through some econometrics analysis.

SYLLABUS

Hrs	Frontal teaching
1	Course introduction
1	Basics of microeconomics
3	Market power and dominant firms
2	Static games
3	Cournot's Oligopoly
4	Bertrand's Oligopoly
2	Dynamic games
3	Panel data and Stata
3	Collusive strategies and dynamic models of oligopoly
4	Product differentiation strategies
2	Price discrimination strategies
4	Stackelberg oligopoly, Dixit's model, Strategic analysis of barrier to entry
4	Fudenberg & Tirole framework, Entry deterrence and accommodation strategies
14	Quality and reputation strategies, Signal theory, Advertising strategies, R&D strategies, Exclusive strategies, Predatory strategies, M&A strategies

Hrs	Practice
1	Basics of microeconomics
2	Market power and dominant firms
1	Static games
2	Cournot's Oligopoly
2	Bertrand's Oligopoly
2	Dynamic games
2	Panel data with STATA
2	Collusive strategies and dynamic models of oligopoly
2	Product differentiation strategies
1	Price discrimination strategies
4	Stackelberg oligopoly, Dixit's model, Strategic analysis of barrier to entry
3	Fudenberg & Tirole framework, Entry deterrence and accommodation strategies
6	Quality and reputation strategies, Signal theory, Advertising strategies, R&D strategies, Exclusive strategies, Predatory strategies, M&A strategies

MODULE
BUSINESS GAME

Prof. GIOVANNI PERRONE

SUGGESTED BIBLIOGRAPHY

•Slide del corso;
•Business model generation, Alexander Osterwalder, Yves Pigneur
•Lista casi di studio del corso

AMBIT	50368-Ingegneria gestionale
INDIVIDUAL STUDY (Hrs)	96
COURSE ACTIVITY (Hrs)	54

EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims at providing students with theoretical knowledge and practices related to the design, development and implementation of business models. The course is divided into three modules: theoretical aspects, construction of case studies, business games. The first part of the course provides the basic knowledge for the development, analysis and implementation of a business model. In the second part of the course, the student having learned the necessary theoretical knowledge, as a group, engages in the analysis of a real business case. Finally, in the last part of the course the student participates, always in groups, to a business game, where he/she learns the practical implementation and enforcement aspects of a business model.

SYLLABUS

Hrs	Frontal teaching
2	Course introduction
4	The business model canvas
4	Business models patterns
4	How to design a business model
4	Reinterpreting strategies in business models
4	Business model processes

Hrs	Practice
16	Learning how to design business model through real cases

Hrs	Workshops
16	Business model execution: Analysis and discussion of real business cases