



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Ingegneria
ACADEMIC YEAR	2021/2022
SECOND CYCLE (7TH LEVEL) COURSE	MANAGEMENT ENGINEERING
SUBJECT	TECHNOLOGY ANALYSIS & STRATEGIC MANAGEMENT
TYPE OF EDUCATIONAL ACTIVITY	B
AMBIT	50368-Ingegneria gestionale
CODE	21669
SCIENTIFIC SECTOR(S)	ING-IND/35
HEAD PROFESSOR(S)	PIAZZA MARIANGELA Ricercatore a tempo determinato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	102
COURSE ACTIVITY (Hrs)	48
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	PIAZZA MARIANGELA Tuesday 15:00 18:00 Ufficio docente previa comunicazione email

PREREQUISITES	The student needs a basic knowledge of business and microeconomics.
LEARNING OUTCOMES	<p>Knowledge and understanding: The student will learn the fundamental topics of theory of the firm, networking strategy, social network analysis, and technology analysis in the open innovation perspective. The student will show - through deductive reasoning and references to real cases - understanding of the main issues related to the inter-firm relations and to the strategic decisions taken within the company. The student acquires also knowledge and understanding about Open Innovation and Social Network Analysis methodologies.</p> <p>Applying knowledge and understanding: The student will acquire knowledge to analyse, both from a theoretical and empirical point of view, the inter-firm relationships, such as alliances, joint ventures and M&A and how to use such relations to acquire new technologies. This capacity is expressed both in the work groups and classroom case studies discussions in which students face issues related to the discipline, such as the theory of the firm, the networking strategy, the social network analysis and the open innovation. In particular, the student will acquire the ability to operationalize inter-organizational constructs and empirically analyse them through the use of statistical methods such as ordinal logistic and multinomial regressions. Moreover, the student will acquire the ability to use Social Network Analysis software tool for network analysis.</p> <p>Making judgements The course aims at developing student's ability to make judgements, that is, the ability ability to critically evaluate the behaviour of the individual firm in technology relationships among athors firms. The student acquires a deep knowledge, both scientific and practical, of the relations between companies and she/he is able to express opinions on management decisions concerning the organization and the management of the inter-firm relationships, the choice of the partners, the designing of networks, the acquisition of new knowledge and technologies. The course aims to stimulate their independent judgment through the critical presentation of scientific literature and the validation of theoretical models through statistical analysis.</p> <p>Communication skills The course aims to develop students' ability to communicate and interact with other individuals, to make complex managerial decisions and to negotiate an inter-firm relationship. The student is able to communicate competently and with a correct use of language complex problems of strategic management, business organizations, networking strategy and technology analysis. In other words, in relation to a specific managerial problem the student is able to explain its specific nature and origin, suggesting also possible solutions and showing communication skills and interaction capacity. To this end, the course requires, as part of educational activities, presentations in class of case studies. Furthermore, 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).</p> <p>Learning skills In line with the topics of the course such as the theory of the firm, the networking strategy, the social network analysis and the open innovation, the students acquire learning skills, both from a theoretical and practical point of view. They acquire also communication skills and independent judgment. The main teaching tools are lectures, thematic debates in class and work group. The final test and the evaluation of the work group are the main to instrument to assess the acquired capacities.</p>
ASSESSMENT METHODS	<p>Students are evaluated along 3 different tests:</p> <ul style="list-style-type: none"> • Discussion of readings in classroom (20%); • Group business context (40 %) • Individual case study (40%) <p>Discussion of classroom readings Students during the course will be provided with readings on the lesson topics. The readings will be discussed in the classroom in order to highlight the topics of the lesson. Each student participates independently or at the request of the teacher to discuss part of the reading. The teacher evaluates the student's ability to understand the topics and analyze them critically.</p> <p>Group business contest Students are divided into groups of 3-4. The teacher assigns to the groups a case contest, taken from a real case, in which two companies must negotiate an</p>

	<p>inter-organizational relationship. Students analyse the business information assigned, and each plays a role in the group. The day of the negotiation, which takes place in the classroom, the groups (in pairs or two) meet to negotiate the terms and the conditions of the inter-organizational relationship. The negotiation activity is observed by the teacher. Next, students are invited to prepare a Power Point presentation in which they present the agreement reached. The business contest allows to evaluate the knowledge acquired by the students, the ability to apply this knowledge in real settings, the ability to make managerial decisions, and the ability to integrate knowledge acquired in other courses of their curriculum. The business contest also allows to evaluate soft skills such as the ability to team work, the independent decision-making, and the leadership.</p> <p>Individual case study The teacher assigns to each student a real case relating to an inter-firm relationship (alliance, joint venture, M&A, etc.) gathered from business and management journals. The student will develop a case study, telling facts and figures relating to the matter. The student will enhance the data searching for example data on the transaction value, the managers' statements, etc. Moreover, depending on the theoretical topics covered during the course, the student must highlight in the case study the reasons behind the strategic governance decisions of the two companies involved in the agreement, highlighting advantages and disadvantages.</p> <p>The final evaluation takes into account all the 3 previous tests. 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 ability to frame real arguments in the studied theory, excellent ability to bind the arguments with each other and develop a critical analysis, 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 ability to frame real arguments in the studied contexts, good ability to bind the arguments with each other and develop a critical analysis, 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 capacity to frame real arguments in the studied contexts, satisfactory ability to bind the arguments with each other and develop a critical analysis, 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 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, 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. 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, 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 understanding business problems.</p>
EDUCATIONAL OBJECTIVES	<p>The course aims to provide a valuable discussion about the topics such as the theory of the firm, the inter-firm relationships, the networking strategies, the acquisition of new knowledge and technologies in the open-innovation context, combining theoretical rigor with practical applications and analysis of real cases. The first part of the course is devoted to the theory of the firm: the course studies the main theories of the theory of the firm such as the Transaction Cost Economics and Resource Based View. The second part of the course studies the relationships between companies: the course discusses the main governance forms between firms, such as alliances, joint ventures, outsourcing and M&A. Finally, emphasis is placed on the technology analysis through the open innovation and crowdsourcing phenomena: in this third part, the course investigates the practices, collaboration modes, the inter-organizational relationships, and the open innovation and crowdsourcing strategies. Students are required to participate actively through discussions of cases</p>

TEACHING METHODS	Frontal lecturers, Discussion of reading in classroom, Business contest
SUGGESTED BIBLIOGRAPHY	<ul style="list-style-type: none"> • G. Perrone, Teaching Slides given by the teacher • Case Study and Research Papers given by the teacher

SYLLABUS

Hrs	Frontal teaching
1	Course introduction
2	Firms and market: the theory of the firm
2	Transaction cost economy
2	Property right theory
2	Agency theory
2	Real option theory
2	Resource based view theory
4	Strategic relations among firms: Alliances, JV, Outsourcing, M&A
5	Strategic relations in the supply chain
8	Technology analysis, Open innovation e crowdsourcing
3	Social capital e Social network analysis
Hrs	Practice
1	Firms and market: the theory of the firm
1	Transaction cost economy
1	Property right theory
1	The agency theory
1	Real option theory
1	Resource based view theory
1	Strategic relations among firms: Alliances, JV, Outsourcing, M&A
2	Strategic relations in the supply chain
2	Technology analysis, Open innovation e crowdsourcing
1	Social capital e Social network analysis
3	Business contest