TEACHING GUIDE BY SUBJECT

PERSONA CIÈNCIA EMPRESA
UNIVERSITAT RAMON LLULL

Code:	80617
Name of the subject:	Innovation and Information Management

GENERAL CHARACTERISTICS

Number of credits ECTS:	3.0
Language/s	Spanish Catalan English
Type	Normal
Professor/s	Malet Falcó, Carlos

DESCRIPTION

BRIEF DESCRIPTION AND JUSTIFICATION

The main objective of the course "Innovation and Information Management" is to develop the competences associated with Innovation Management, as a systematic process of change for the transformation of ideas into value. The subject revolves around the concept of Market Driven Innovation, that begins with the identification of customer and consumer needs, and ends up with the formulation of a Value Proposition and a sustainable business model

COMPETENCES

As a result of learning and practicing the contents of the subject, students will be able to:

- Efficiently manage the tasks associated with Research and Technology Innovation, Technology Transfer, and IP management (CE9)
- Acquire the vision to identify changes in society arising from economic and technological factors, and to develop sustainable solutions to adapt to those changes (CE10)
- Work within a multidisciplinary environment (CT3)
- Lead teams within the field of Chemical Engineering (CT4)
- Assess the impact of Chemical Engineering for the sustainable development of society (CT5)
- Develop a lifelong learning attitude for a continuous self professional development (CT6)

PREREQUISITES

The competencies that apply to previous educational stages

CONTENTS

1. Introduction: what is Innovation? A historical perspective.
2. Myths and barriers.
3. Understanding our own business: analysis of external and internal factors. Business Models.
4. How to identify consumer (B2C) and customer (B2B) needs?
5. Generating solutions: creative techniques.
6. Open innovation.
7. Developing a compelling Value Proposition.
8. Prototypes and Validation.
9. Industrial and Intellectual property.
10. Execution: Stage Gate.
11. Financing Innovation and measuring the Return on Innovation.
12. The Lean Start up.
13. The role of Company and Corporate Culture in Innovation. Innovation teams and HHRR.

METHODOLOGY

TRAINING ACTIVITIES:

Training activities	ECTS Credits	Competencies
Concept Sessions	0,75	CE9, CE10, CT3, CT4, CT5, CT6
Sessions solving exercises, problems and cases	0,75	CE9, CE10, CT3, CT4, CT5, CT6
Seminars	0,10	CE9, CE10, CT3, CT4, CT5, CT6
Compulsory activities at the teacher's office	-	
Practical work / laboratory	0,60	CE9, CE10, CT3, CT4, CT5, CT6
Presentations	0,15	CE9, CE10, CT3, CT4, CT5, CT6
Personal study activities of students	0,50	CE9, CE10, CT3, CT4, CT5, CT6
Evaluation activities (testing, monitoring controls ...)	0,15	CE9, CE10, CT3, CT4, CT5, CT6
TOTAL	3,00	CE9, CE10, CT3, CT4, CT5, CT6

EXPLANATION OF TEACHING METHODOLOGY

The teaching methodology used throughout the course encompasses the following activities:

- Presentation of concepts: lectures by the professor, and personal study.
- Exercises and cases: preparing and solving exercises based on real cases that illustrate the concepts presented in class.
- Final project: students work in teams on a final project that summarizes the steps that lead to the creation of a new product or service: identification of customer/consumer needs, estimation of the market potential, formulation of a compelling value proposition, identification of competition, and draft of a sustainable business model. Students present the project at the end of the curse.
- Seminars: individual or group coaching that facilitates the learning process

EVALUATION

METHODS OF EVALUATION

Evaluation Methods	Weight	Competencies

Final exam	-	
Partial exams	30%	CE9, CE10, CT3, CT4, CT5, CT6
Following up activities	-	
Homework and presentations	30%	CE9, CE10, CT3, CT4, CT5, CT6
Experimental work or fieldwork	-	
Projects	40%	CE9, CE10, CT3, CT4, CT5, CT6
Evaluation of the company or institution		
Participation		

LEARNING OUTCOMES

At the end of the course, students should be able to:

1. Learn how to identify Market Opportunities.
2. Tackle technological and industrial challenges in a creative way.
3. Formulate a compelling Value Proposition.
4. Develop prototypes, and how to validate them.
5. Formulate a Business Model for an Innovation Project.
6. Develop a strategic vision and a goal-oriented mindset around innovation: students will experience the innovation process as a part of the overall business strategy.

EVALUATION

1. Two mid-term quizzes to evaluate progress. A minimum of 4.0 in both mid-term exams is required in order to do the average with the activities in class and the team project. See note (4) for additional clarification.
2. Four practical cases to be developed within teams.
3. One team project to be presented (in written + oral presentation) at the end of the course.
4. There is no final exam as such. Students that fail (score < 4.0) or miss one of the two mid-term quizzes are entitled to an extra evaluation at the designated date of the final exam. Students who fail through the continuous evaluation system will be assessed in a single written extraordinary exam.
5. A minimum of 75 % of assistance is necessary to pass through continuous evaluation.

EVALUATION OF COMPETENCES

- CT3 and CT4: Work within a multidisciplinary environment and lead teams within the field of Chemical Engineering: the competencies will be assessed through an Innovation project developed by teams throughout the course. Students will practice the innovation management tools learned during the semester.
- CT5: Assess the impact of Chemical Engineering for the sustainable development of society: students will carry out an assessment of the impact of their projects, according to the UN definition of sustainability: social. environmental and economic impact.
- CT6: Develop a lifelong learning attitude for a continuous self professional development: the competency will be evaluated through quizzes in which the students will demonstrate their understanding of the concepts related to innovation management. There will be a special focus on two innovation management models: 1) "Stage Gate", currently used by most Fortune 500 companies; 2) "Lean Startup", as a model used by Startups and SMSEs dealing with projects in a high uncertainty environment.

BIBLIOGRAPHY

Bibliography

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DOCUMENT RECORD

PREVIOUS CHANGES

LAST REVISION

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