

25825 - Design Research

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	271 - Bachelor's Degree in Industrial Design and Product Development Engineering
ECTS	7.5
Course	
Period	First Four-month period
Subject Type	Optional
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

The learning process that is designed for this subject is based on the following:

In the course some theoretical subjects (3 ECTS) which will serve for learning definitions, terminology or technical work and for reviewing cases by exposure of content with presentations and examples will be developed. However, the bulk of the course will consist of exercises in the classroom and on behalf of the student, tutored sessions monitoring and evaluation of project achievements and partial and general objectives of attainment.

Practical classes will consist of several simple exercises for individual work and project for collective work, the issues may be related to work of other subjects that are developed in the same quarter so that the share of research and problem solving is applicable to other exercises and student projects (4.5 ECTS).

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The evaluation will be continuous and will be based on meeting the objectives set out in proposed projects and exercises, through the evaluation of different sections within the exercise itself or project.

5.2.Learning activities

The program that the student is offered to help you achieve the expected results includes the following activities

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The lectures addressed, among others, the following: Innovation, technology watch, knowledge management, prospecting and future scenarios. In the theoretical classes cases are discussed and analyzed, debates about products and objects seen regarding the issue are made.

The practical classes are developed through simple exercises for experimental and conceptual individual work: The project is collective work and methodology seen in the theoretical part is applied.

7.5 ECTS: 187.5 hours / student distributed as follows:

- 30 h. whole group class: theory and problems (15 classes 2 contact hours) Type 1
- 45 h. Practice class (15 sessions of 3 contact hours) Type 2
- 15 h. theoretical study
- 90 h. practical work
- 7.5 h. examination and presentation of projects

5.3.Program

The lectures addressed, among others, the following:

- Concept of innovation , technological innovation, technology watch / foresight . Research, Development and Innovation (R + D + I).
- Applying innovation to the process of product development, generating new product concepts .
- Research in innovation. State of the art .
- Concept of technology watch.
- Concepts of knowledge management and competitive intelligence
- Specific regulations for the management system of R + D + I.

5.4.Planning and scheduling

Calendar of Theoretical and practical sessions

semana 1	TEORÍA PRESENTACIÓN DE ASIGNATURA	ACTIVIDAD PRÁCTICAS INICIO EJERCICIOS CONCEPTUALIZACIÓN
semana 2	CONCEPTUALIZACIÓN	EJERCICIO CONCEPTUALIZACIÓN FORMAL
semana 3	CONCEPTUALIZACIÓN, EJEMPLOS	EJERCICIO CONCEPTUALIZACIÓN FORMAL
semana 4	VIGILANCIA TECNOLÓGICA	EJERCICIO CONCEPTUALIZACIÓN FUNCIONAL
semana 5	VIGILANCIA TECNOLÓGICA	EJERCICIO CONCEPTUALIZACIÓN FUNCIONAL
semana 6	GESTIÓN DEL	PRESENTACIÓN Y

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	CONOCIMIENTO E INTELIGENCIA	ENTREGA EJERCICIOS CONCEPTUALIZACIÓN SUBIR A MOODLE
semana 7	BUSQUEDA DE INFORMACIÓN	INICIO TRABAJO VIGILANCIA
semana 8	PROSPECTIVA	INICIO PROYECTO INNOVACIÓN-PROSPECTIVA
semana 9	PROSPECTIVA	TRABAJO VIGILANCIA
semana 10	HERRAMIENTAS PROSPECTIVA	PROYECTO INNOVACIÓN-PROSPECTIVA
semana 11	INNOVACIÓN	PROYECTO INNOVACIÓN-PROSPECTIVA
semana 12	INNOVACIÓN	TRABAJO VIGILANCIA
semana 13	INNOVACIÓN EJEMPLOS	PROYECTO INNOVACIÓN-PROSPECTIVA
semana 14	INNOVACIÓN EJEMPLOS	PROYECTO INNOVACIÓN-PROSPECTIVA
semana 15	GESTIÓN DE LA INNOVACIÓN	PRESENTACIÓN PREVIA PROYECTO DE INNOVACIÓN-PROSPECTIVA

5.5. Bibliography and recommended resources

- Godet, Michel. De la anticipación a la acción: manual de prospectiva y estrategia Marcombo, Barcelona, 1993
- Montaña, Jordi. Diseño y estrategia de producto Fundación BCD, Barcelona 1985
- French, M. J. Conceptual design for engineers / M. J. French . 3rd ed. London : Springer, cop. 1999
- Diseño industrial y su gestión en la PYME española : diez casos reales / Pere Escorsa Castells, ed.; Emil Herbolzheimer, ed.; Francesc Solé Parellada, ed. ; con la colaboración de la Escuela Superior de Administración y Dirección de Empresas Barcelona : Edicions UPC, 1995
- Thackara, John. In the bubble : designing in a complex world / John Thackara. - 1st ed. Cambridge, Massachusetts : MIT Press, 2006