



1. **Code:** 32515 **Name:** Design Analysis and Validation Models

2. **Credits:** 3,00 **--Lecture:** 1,00 **--Practice:** 2,00 **Type of Course:** Elective

Degree: 2160-Master's Degree in Design Engineering

Module: 2-Elective subjects Semester B

Subject: 2-Models, methods, and techniques for innovation in products and services

University Center: SCHOOL OF DESIGN ENGINEERING

3. **Coordinator:** Aparisi Torrijo, Javier

Departament: GRAPHICS ENGINEERING

4. References

Diseño de nuevos productos : una perspectiva sistémica

rDis® | Red Internacional de Investigación en Diseño Sistémico

Hernandis Ortuño, Bernabé | Iribarren Navarro, Emilio | Universidad Politécnica de Valencia
rdis®. Revista de la Red Internacional de Investigación en Diseño Sistémico

5. Course Outline

This course aims to introduce the methods of analysis and validation of design in the current methodology of system design and familiarize the student with the current needs of a client, developing an innovative proposal in products and / or services for presentation. To this end, a paper, poster and article will be written on the models of product and/or service developed or the innovative company. A design magazine is available in order to project internationally the proposals made by the student. In order to publish, it will be necessary to comply with the requirements and regulations of the journal. It will also be possible to opt for the approach of an entrepreneurial company of a product and/or service, which includes the implementation and monitoring of the business project until its launch. It will be possible to participate in research projects on the current lines of research of the professors of the subject.

6. Recommended Prior Knowledge

(32501) Modelling of Systems-for Knowledge Management in Industrial Design

(32513) Models for the Innovation of Products and Services

7. Student Outcomes

Specific Student Outcomes

001(GE) Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context

21(ES) Knowledge management in design applied to the business model and industrial product design

10(ES) Design, innovate and manage new products

UPV-Generic Student Outcomes

(02) Application and practical thinking

- Activities carried out to achieve the student outcome
Project

- Detailed description of the activities

A project will be carried out based on the development of a new and unique product/service, by carrying out a series of tasks with an efficient use of resources.

- Assessment criteria
Academic work.

(04) Innovation, creativity and entrepreneurship

- Activities carried out to achieve the student outcome
Project

- Detailed description of the activities

A challenge or design/service need to be met. Students must explore, investigate, question and propose both abstractly and practically an innovative and creative idea, which adds value to existing solutions in the market.

- Assessment criteria

Evaluation by monitoring the different stages of project development and the final result.

8. Syllabus

1. Metaproject Methodology
2. Study of the Environment
3. Consumer Study
4. Project Analysis
5. Concept Development



8. Syllabus

- 6. Project Development
- 7. Project Presentation

9. Teaching and Learning Methodologies

<u>UN</u>	<u>LE</u>	<u>SE</u>	<u>PS</u>	<u>LS</u>	<u>FW</u>	<u>CP</u>	<u>AA</u>	<u>CH</u>	<u>NCH</u>	<u>TOTAL HOURS</u>
1	1,00	--	--	1,00	--	--	0,50	2,50	3,00	5,50
2	2,00	--	--	3,00	--	--	0,50	5,50	5,00	10,50
3	2,00	--	--	3,00	--	--	0,50	5,50	7,50	13,00
4	2,00	--	--	4,00	--	--	0,50	6,50	7,50	14,00
5	1,00	--	--	3,00	--	--	0,50	4,50	15,00	19,50
6	1,00	--	--	2,00	--	--	0,50	3,50	10,00	13,50
7	1,00	--	--	4,00	--	--	0,50	5,50	5,00	10,50
TOTAL HOURS	10,00	--	--	20,00	--	--	3,50	33,50	53,00	86,50

UN: Unit. LE: Lecture. SE: Seminar. PS: Practical session. LS: Lab sessions. FW: Field work. CP: Computer-mediated practice. AA: Assessment activities. CH: Contact hours. NCH: Non contact hours.

10. Assessment

Outline

	<u>Num. Acts</u>	<u>Weight (%)</u>
(04) Conceptual chart	1	10
(05) Academic studies	1	30
(12) Co-evaluation	1	10
(09) Project	2	30
(08) Portfolio	1	20

Adequacy to the objectives and competences according to evaluation items related to the didactic units imparted and achievement of satisfactory results adequate to the minimum requirements established by the teacher. The evaluation system is based on the implementation of a project and its presentation. As well as the evaluation and validation of an industrial product with its presentation in a classroom, exhibition space or magazine. The student will participate in this process through co-evaluation. In the case that the student presents himself to recovery of the matter, he will have to recover the items that have been executed in a defective way. The teacher may propose additional work or exercises of a similar level to those previously evaluated in this subject.

11. Absence threshold

<u>Activity</u>	<u>Percentage</u>	<u>Observations</u>
Lecture Theory	20	Exposition of contents by means of presentation or explanation on the part of a teacher (including demonstrations).
Lecture Practice	20	Preparation of activities to develop, expose and deliver in the practical classes.
Field Practice	20	The student must explore and work on a practical problem applying interdisciplinary knowledge referenced in class.