Course guide
320155 - DIP - Integral Design of Product

Last modified: 19/04/2023

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 717 - DEGD - Department of Engineering Graphics and Design.

Degree: BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Optional subject).

Academic year: 2023 **ECTS Credits:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: Tomeu Ventayol Femenías

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. DES: Ability to design and project in different situations, effectively and efficiently with different agents involved in the process of design and industrial development.

2. DES: Advanced knowledge in 3D modeling.

3. DES: Knowledge of basic animation and 3D simulation.

4. DES: A good command of the tools related to the design process.

5. DES: Knowledge of design tools for their use in design projects and product redesign.

Transversal:
6. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
7. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
8. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.

TEACHING METHODOLOGY

Face-to-face sessions of contents exhibition.
Classroom sessions of practical work.
Self study work and exercises.
In the sessions of exhibition of the contents the professor will introduce the theoretical bases of the
Subject matter, concepts, methods and results illustrating them with convenient examples to facilitate them
your understanding.
In the practical work sessions the teacher will guide students in product analysis and the resolution of
Problems applying theoretical techniques, concepts and results. In a second phase, students will work in the project guided by the teacher.
The students, independently, will have to study to assimilate the concepts, solve the exercises proposed and develop the project.

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	20.00
Self study	90,0	60.00
Hours small group	30,0	20.00

Total learning time: 150 h

CONTENTS

(ENG) Tècniques de màrqueting

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

(ENG) Estudi del cicle de vida

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

(ENG) Disseny conceptual

Full-or-part-time: 24h
Laboratory classes: 8h
Self study : 16h

(ENG) Presentacions i Comunicació

Full-or-part-time: 12h
Laboratory classes: 4h
Self study : 8h

(ENG) Generació de prototips

Full-or-part-time: 39h
Laboratory classes: 15h
Self study : 24h

(ENG) Disseny de detall i de dispositius macarrònics

Full-or-part-time: 35h
Laboratory classes: 15h
Self study : 20h

(ENG) Validació , homologació i registre del disseny

Full-or-part-time: 20h
Laboratory classes: 10h
Self study : 10h

ACTIVITIES

(ENG) DISSENYS DE PRODUCTES

Full-or-part-time: 150h
Laboratory classes: 60h
Self study: 90h

GRADING SYSTEM

Continuous assessment
The continuous evaluation will be made from the work that the student will develop during the course, through the delivery of papers or written and / or oral tests, according to the criteria and schedule that are established.
final evaluation
If the continuous evaluation is not positive, a second evaluation can be made that will consist of a final test of a global nature in the format that is established according to the criterion of the responsible professor (written or oral test and / or delivery of papers)

BIBLIOGRAPHY

Basic:
- Melton, T.; Iles-Smith, P.; Yates, J. Project benefits management: linking your project to the business [on line]. Amsterdam: Butterworth-Heinemann, 2008 [Consultation: 30/09/2022]. Available on: https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9780750684774/project-benefits-management. ISBN 9780750684774.
- Norton, Robert L. Design of machinery: an introduction to the synthesis and analysis of mechanisms and machines. 5th ed. New York: McGraw-Hill, 2012. ISBN 9780073529356.

Complementary:
- Félez, J.; Martínez, M.L. Ingeniería gráfica y diseño. Madrid: Síntesis, 2008. ISBN 9788497564991.