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320155 - DIP - Integral Design of Product

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering

Teaching unit: 717 - EGE - Department of Engineering Presentation

Academic year: 2019

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

ECTS credits: 6 Teaching languages: Catalan

Teaching staff

Coordinator: Tomeu Ventayol Femenías

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

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Study load

Total learning time: 150h	Hours large group:	30h	20.00%
	Hours medium group:	0h	0.00%
	Hours small group:	30h	20.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

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Content

(ENG) Tècniques de màrqueting	Learning time: 10h Laboratory classes: 4h Self study : 6h
(ENG) Estudi del cicle de vida	Learning time: 10h Laboratory classes: 4h Self study : 6h
(ENG) Disseny conceptual	Learning time: 24h Laboratory classes: 8h Self study : 16h
(ENG) Presentacions i Comunicació	Learning time: 12h Laboratory classes: 4h Self study : 8h
(ENG) Generació de prototips	Learning time: 39h Laboratory classes: 15h Self study : 24h
(ENG) Disseny de detall i de dispositius macarrònics	Learning time: 35h Laboratory classes: 15h Self study : 20h
(ENG) Validació , homologació i registre del disseny	Learning time: 20h Laboratory classes: 10h Self study : 10h

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Planning of activities

(ENG) DISSENYS DE PRODUCTES	Hours: 150h Laboratory classes: 60h Self study: 90h

Qualification 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. Amsterdam: Butterworth-Heinemann, 2008. 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.

Others resources: