

320151 - GID - Integral Design Management

Coordinating unit:	205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering		
Teaching unit:	732 - OE - Department of Management		
Academic year:	2019		
Degree:	BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Teaching unit Compulsory)		
ECTS credits:	6	Teaching languages:	Catalan, Spanish, English

Teaching staff

Coordinator:	Pedro Monagas Asensio
Others:	Pedro Monagas Asensio

Opening hours

Timetable:	To schedule
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Prior skills

It is recommended to have passed the subjects of Probability and Statistics, and Manufacturing Processes.

Degree competences to which the subject contributes

Specific:

5. DES: Knowledge of design tools for their use in design projects and product redesign.
6. DES: Knowledge of the design methodology
7. DES: Ability to detect changes in society.
8. DES: Ability to identify the language of shapes, their values and their relations with the cultural setting.
9. DES: Ability to design and project in different situations, effectively and efficiently with different agents involved in the process of design and industrial development.
10. DES: Capability for packaging design .

Transversal:

1. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.
2. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
3. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 3. Taking social, economic and environmental factors into account in the application of solutions. Undertaking projects that tie in with human development and sustainability.
4. ENTREPRENEURSHIP AND INNOVATION - Level 3. Using knowledge and strategic skills to set up and manage projects. Applying systemic solutions to complex problems. Devising and managing innovation in organizations.
11. 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.
12. 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.

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Teaching methodology

Theory

Slides will be used as a guide, strengthened and expanded its content both exposures to face classes as notes available to students and recommended books.

The student will have at disposal questionnaires concerning the theoretical content of each of the topics, exercises and exams from previous years will serve not only for the study and assimilation of the contents, but also for the exam preparation and practice.

Practice

The Action Plan will be developed in the classroom as well as cases and exercises of reflection regarding the theoretical contents, for the assimilation and application of such content.

The exercises are available to the student in good time to be prepared at home and devote class time in his analysis and comments by students and the teacher.

The bulk of the practices will be aimed in order to perform work on the launch of an industrial design included in a business plan are considered necessary for the preparation of the student regarding the development on his part of practical classes in mandatory group .

Learning objectives of the subject

Study load

Total learning time: 150h	Hours large group:	45h	30.00%
	Hours medium group:	15h	10.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

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Content

<p>PART 1: STRATEGY AND PLANNING</p>	<p>Learning time: 6h Theory classes: 2h Guided activities: 2h Self study : 2h</p>
<p>Description: 1. INTRODUCTION 2. PRODUCT DEVELOPMENT PROCESS</p>	
<p>PART 2: CONCEPTUAL DEVELOPMENT</p>	<p>Learning time: 96h Theory classes: 10h 40m Practical classes: 10h 40m Guided activities: 10h 40m Self study : 64h</p>
<p>Description: 3. CONSUMER NEEDS. INDUSTRIAL CONSUMERS 4. MARKET SEGMENTATION 5. MARKETING 6. LIFECYCLES 7. INDUSTRIAL DISSSENY 8. PRODUCTS SPECIFICATIONS AND CONCEPT GENERATION 9. PROTOTYPING 10. CONCEPT SELECTION</p>	
<p>PART 3: PRODUCT DEVELOPMENT</p>	<p>Learning time: 30h Theory classes: 3h 20m Practical classes: 3h 20m Guided activities: 3h 20m Self study : 20h</p>
<p>Description: 11. INNOVATION AND CREATIVITY 12. PRODUCT POLICY 13. PRODUCT ARCHITECTURE. ROBUST DESIGN 14. DEMAND FORECASTING OF NEW PRODUCTS 15. PRICING POLICY</p>	

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<p>PART 4: IMPLEMENTATION</p>	<p>Learning time: 18h Theory classes: 3h Practical classes: 3h Self study : 12h</p>
<p>Description: 16. PRODUCTION DESIGN 17. SUPPLY CHAIN. CONCURRENT ENGINEERING 18. TRENDS AND TOOLS FOR THE DEVELOPMENT OF PRODUCTS</p>	

Qualification system

Evaluation Final Note = Mid term Exam 20% + Final Exam 20% + 60% Nep

NF: Final Note

N1p: Note 1 partial (mid term Exam)

Nef: FINAL EXAM

Nep: Note practical exercises

Note exercises, is the arithmetic sum of the following works:

Individual work 15% + collective 30% + attendance 10% + 5% classroom practices

Note: 30% by collective practical exercises, it is calculated in verse to the following conditions:

25% by teacher assessment + 5% peer evaluation, assessment companions as specific instructions ATENEA Rubrics.

Note: 10% for class attendance, it is calculated in verse to the following conditions: 10 if attendance 100%, 8 if attendance 80%, 6 if attendance 60%, 4 if attendance 40%, 2 if attendance 20%, 0 if assistance <20%.

For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.

If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

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Regulations for carrying out activities

Compliance is essential supplies 80% of all the work in the classroom, and 100% of individual and collective. The work group assignment for collective work are required.

Reevaluation and Resumption of the Course

Review of assessment tests

In accordance with the UPC examination claim regulations and in the calendar presented by the Professor at the end of each test.

Minimum requirements to qualify for reevaluation

In order to qualify for the reevaluation of this subject, it is essential to be enrolled in the subject and have obtained a final grade between 3.5 and 4.9. In addition, it is necessary to obtain a minimum of 4 out of 10 of the overall grade of the practical exercises with the weighting established in this teaching guide.

The final grade of the subject is calculated with these weights indicated, both in the ordinary test and in the reevaluation. If passed in the ordinary test, since the student will not appear in the minutes as a suspense, it will not be possible to reevaluate. However, if someone wants to stand up for a reevaluation note, they should talk to the teachers in the regular test review. The reevaluation of any test requires the presentation on the day / time of the reevaluation test in the classroom indicated in the test calendar proposed by the teacher.

Bibliography

Basic:

Domínguez Machuca, J. A. Dirección de operaciones: aspectos tácticos y operativos en la producción y los servicios. Madrid [etc.]: McGraw-Hill, cop. 1995. ISBN 8448118030.

Garriga Garzón, Federico. Problemas resueltos de teoría de la decisión [on line]. Barcelona: Omnia Science, cop. 2013 [Consultation: 03/05/2019]. Available on: <<http://www.omniascience.com/scholar/index.php/scholar/issue/view/8>>. ISBN 9788494062421.

Garriga Garzón, Federico. Problemas resueltos de dirección de operaciones [on line]. Barcelona: OmniaScience, DL 2013-2014 [Consultation: 03/05/2019]. Available on: <<http://www.omniascience.com/scholar/index.php/scholar/article/view/13/12>>. ISBN 9788494211836.

Heizer, Jay; Render, Barry. Dirección de la producción y de operaciones: decisiones estratégicas. 11a ed. Madrid [et al.]: Pearson Educación, cop. 2015. ISBN 9788490352878.

Complementary:

Larrañeta, Juan; Onieva, Luis; Lozano, Sebastián. Métodos modernos de gestión de la producción. Madrid: Alianza Editorial, cop. 1988. ISBN 8420681229.

Monden, Yasuhiro. Toyota production system: an integrated approach to just-in-time. 4th ed. Boca Raton: CRC Press, 2012. ISBN 9781439820971.

Others resources: