[GDW205] DESIGN METHODOLOGY II

GENERAL INFORMATION

Studies	DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING			**Subject**	DESIGN METHODOLOGY
Semester	1	**Course**	3	**Mention / Field of specialisation**	
Character	COMPULSORY				
Plan	2017	**Modality**	Adapted Face-to-face	**Language**	CASTELLANO
Credits	4,5	**Hours/week**	3.72	**Total hours**	67 class hours + 45.5 non-class hours = **112.5 total hours**

PROFESSORS

ELCORO DE TENA, MAITE

AZPI-NAZABAL IRAOLAGOITIA, MAITE

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	Spanish B2

SKILLS

VERIFICA SKILLS

SPECIFIC

GDCE16 - To define product aesthetics using design methodology.

GENERAL

GDCB6 - To be able to respond adequately in complex situations or situations that call for innovative solutions in both the academic field and work environments within the area of Industrial Design and Product Development Engineering.

GDCG02 - Knowledge of basic subjects and technologies for the learning of new, specific industrial design and product development engineering methods and technologies and for an enhanced capacity to adapt to new situations.

GDCG07 - To be able to prepare and develop projects within the scope of Industrial Design and Product Development Engineering.

BASIC

G_CB1 - To have proven to understand and have knowledge in a field of study based on general secondary education at a level found in advanced textbooks and including concepts at the forefront of their field of study.

G_CB4 - To be able to communicate information, ideas, problems and solutions to both expert and lay audiences

ENAEE LEARNING RESULTS	*ECTS*
ENAE03 - Knowledge and understanding: Sufficient knowledge of their branch of engineering, including some knowledge at the forefront of their field.	0,72
ENAE06 - Analysis in engineering: Ability to apply their knowledge and understanding in analysing product, process and method engineering.	1,2
ENAE08 - Engineering projects: Ability to apply their knowledge in the development and completion of projects which meet specific requirements.	0,48
ENAE09 - Engineering projects: Understanding of the different methods and ability to use them.	0,6
ENAE10 - Research & innovation: Ability to perform bibliographic searches, to use databases and other sources of information.	0,24
ENAE11 - Research & innovation: Ability to design and carry out experiments, to interpret data and draw conclusions.	0,52
ENAE13 - Practical application of engineering: Ability to select and use suitable equipment, tools and methods.	0,12
ENAE15 - Practical application of engineering: Understanding of applicable methods and techniques and their limitations.	0,12
ENAE16 - Practical application of engineering: To be aware of the implications of the practical application of engineering.	0,12
ENAE18 - Transversal competences: To use different methods to communicate effectively with the engineering community and society in general.	0,12
ENAE19 - Transversal competences: Demonstrate that they are aware of the responsibility implied in the practical application of engineering, the social and environmental impact, and show commitment with professional ethics, responsibility and regulations of the practical application of engineering.	0,1
ENAE21 - Transversal competences: To recognise the need for and be able to voluntarily develop continuous learning.	0,16
Total:	**4,5**

LEARNING RESULTS

RG301 Assumes responsibilities in the work team, organizing and planning the tasks to be developed, facing the contingencies and encouraging the participation of its members.

LEARNING ACTIVITIES	*CH*	*NCH*	*TH*

Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	5 h.	5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	*(No mechanisms)*

CH - Class hours: 0 h.
NCH - Non-class hours: 5 h.
TH - Total hours: 5 h.

RG302 Analyze the intervening variables in the problem and propose actions for a stable situation.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams		5 h.	5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	*(No mechanisms)*

CH - Class hours: 0 h.
NCH - Non-class hours: 5 h.
TH - Total hours: 5 h.

RG304 Define the problem, develop the solution and present the conclusions in a efficient manner, arguing and justifying each one of them in writing.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams		4 h.	4 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	*(No mechanisms)*

CH - Class hours: 0 h.
NCH - Non-class hours: 4 h.
TH - Total hours: 4 h.

RG305 Define the problem, develop the solution and present the conclusions in a efficient manner, arguing and justifying each one of them in spoken form.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams		4 h.	4 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	*(No mechanisms)*

CH - Class hours: 0 h.
NCH - Non-class hours: 4 h.
TH - Total hours: 4 h.

RGD391 Identifies key elements in the analyses performed and implements them in the design of products

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	27 h.	11 h.	38 h.
Individual and team exercises	40 h.	16,5 h.	56,5 h.

EVALUATION SYSTEM	W
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	60%
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	40%

MAKE-UP MECHANISMS

Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices

CH - Class hours: 67 h.
NCH - Non-class hours: 27,5 h.
TH - Total hours: 94,5 h.

CONTENTS

1. Design process review
2. SWOT analysis
3. HUMAN-CENTRED DESIGN
4. Brief + CUT values review
5. Functional analysis
6. FMEA analysis
7. Value analysis

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes Moodle Platform Class presentations	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_lnk.pl?grupo=DISINDUSTRIAL31&ejecuta=40&_ST