

[GDJ202] COMPUTER-AIDED DESIGN I

GENERAL INFORMATION

Studies	DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING		Subject	DRAWING
Semester	1	Course	3	Mention / Field of specialisation
Character	COMPULSORY		Language	CASTELLANO
Plan	2017	Modality	Adapted Face-to-face	Total hours
Credits	6	Hours/week	3.78	68 class hours + 82 non-class hours = 150 total hours

PROFESSORS

BASKARAN RAZKIN, MAIDER
DEL RIO VERA, MIKEL

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
GRAPHIC EXPRESSION III	Spanish B2

SKILLS

VERIFICA SKILLS

SPECIFIC

GDCE04 - To have spatial skills and to apply graphic representation techniques based on both traditional metric and descriptive geometry methods and computer-aided design applications to industrial design and product development engineering problems.

GENERAL

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

ENAE LEARNING RESULTS

	ECTS
ENAE03 - Knowledge and understanding: Sufficient knowledge of their branch of engineering, including some knowledge at the forefront of their field.	0,32
ENAE04 - Knowledge and understanding: To be aware of the multidisciplinary context of engineering.	0,24
ENAE06 - Analysis in engineering: Ability to apply their knowledge and understanding in analysing product, process and method engineering.	1
ENAE07 - Analysis in engineering: Ability to choose and apply relevant modelling and analytical methods.	1
ENAE08 - Engineering projects: Ability to apply their knowledge in the development and completion of projects which meet specific requirements.	0,8
ENAE09 - Engineering projects: Understanding of the different methods and ability to use them.	0,72
ENAE13 - Practical application of engineering: Ability to select and use suitable equipment, tools and methods.	0,64
ENAE15 - Practical application of engineering: Understanding of applicable methods and techniques and their limitations.	0,48
ENAE16 - Practical application of engineering: To be aware of the implications of the practical application of engineering.	0,4
ENAE18 - Transversal competences: To use different methods to communicate effectively with the engineering community and society in general.	0,4

Total: 6

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
Individual and team solving of exercises, problems, and practices	2 h.	4 h.	6 h.

EVALUATION SYSTEM

	W
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%

MAKE-UP MECHANISMS

Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

CH - Class hours: 2 h.

NCH - Non-class hours: 4 h.
TH - Total hours: 6 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	2 h.	3 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%	Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

CH - Class hours: 2 h.
NCH - Non-class hours: 3 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	2 h.	4 h.	6 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

CH - Class hours: 2 h.
NCH - Non-class hours: 4 h.
TH - Total hours: 6 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	2 h.	4 h.	6 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

CH - Class hours: 2 h.
NCH - Non-class hours: 4 h.
TH - Total hours: 6 h.

RGD331 Develops the components of the product based on 3D CAD at the industrial level

LEARNING ACTIVITIES	CH	NCH	TH
Individual study and work, tests and evaluations and check points	60 h.	67 h.	127 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field	100%	Individual written and oral tests to assess technical skills of the subject	
CH - Class hours: 60 h. NCH - Non-class hours: 67 h. TH - Total hours: 127 h.			

CONTENTS

- Understand the basics, process and continuities of surface modeling.
- . Be able to detect and correct surface errors.
- To learn NX Siemens software

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes Programmes Slides of the subject	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_Ink.pl?grupo=DISINDUSTRIAL31&ejecuta=10&_ST