

[GDF302] DESIGN OF ELECTRICAL PRODUCTS

GENERAL INFORMATION

Studies	DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING	Subject	PROJECT
Semester	2	Course	2
Character	COMPULSORY	Mention / Field of specialisation	
Plan	2022	Modality	Face-to-face
Credits	3	Hours/week	2.78
		Language	CASTELLANO/EUSKARA
		Total hours	50 class hours + 25 non-class hours = 75 total hours

PROFESSORS

PANIAGUA AMILLANO, JULEN
TORRES LOZANO, ASIER

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
<i>(No specific previous subjects required)</i>	<i>(No previous knowledge required)</i>

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GDR209 - To assemble, analyze, solve and simulate electrical circuits and devices		x		2,6
G-RTR1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, - becoming aware of respect for human rights and fundamental rights, and analyzing and assessing the impact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and /or avant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies with a high degree of autonomy		x		0,16
G-RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and coherent manner, orally and in writing, based on quality information, self-made or obtained from different sources, using inclusive and non-discriminatory language		x		0,24
Total:				3

KC: Knowledge or Content / SK: Skills / AB: Abilities

ENAEE LEARNING RESULTS

ENAEE LEARNING RESULTS	ECTS
ENAE05 - Analysis in engineering: Ability to apply their knowledge and understanding in identifying, formulating and solving engineering problems using established methods.	0,4
ENAE06 - Analysis in engineering: Ability to apply their knowledge and understanding in analysing product, process and method engineering.	0,4
ENAE11 - Research & innovation: Ability to design and carry out experiments, to interpret data and draw conclusions.	0,2
ENAE16 - Practical application of engineering: To be aware of the implications of the practical application of engineering.	0,8
ENAE17 - Transversal competences: To work effectively, both individually and in a team.	0,6
ENAE18 - Transversal competences: To use different methods to communicate effectively with the engineering community and society in general.	0,4
ENAE21 - Transversal competences: To recognise the need for and be able to voluntarily develop continuous learning.	0,2
Total:	3

SECONDARY LEARNING RESULTS

RGD290 [!] *Proponer los objetivos y la planificación de un proyecto que le permita adquirir y/o reforzar los conocimientos de tecnologías propias de su especialidad,- que en ocasiones llegan a la vanguardia del conocimiento- y definir una estrategia de aprendizaje*

LEARNING ACTIVITIES

	CH	NCH	TH
Seminars, debates and/or workshops to deepen and/or share experiences.	1 h.	1 h.	2 h.

EVALUATION SYSTEM

	W
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	100%

MAKE-UP MECHANISMS

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

CH - Class hours: 1 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 2 h.

RGD291 [!] *Establecer las responsabilidades de los miembros del equipo utilizando técnicas adecuadas para fomentar la eficiencia del equipo para el desarrollo del proyecto en los plazos establecidos (compartir recursos, aportar ideas, habilidades comunicativas)*

LEARNING ACTIVITIES

Seminars, debates and/or workshops to deepen and/or share experiences.

CH

1 h.

NCH

1 h.

TH

2 h.

EVALUATION SYSTEM

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

W

100%

MAKE-UP MECHANISMS

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

CH - Class hours: 1 h.

NCH - Non-class hours: 1 h.

TH - Total hours: 2 h.

RGD293 [!] *Redacta y estructura correctamente la memoria del proyecto, haciendo un uso correcto, inclusivo y no discriminatorio del lenguaje. Para ello, busca y hace uso de las fuentes de información adecuadas.*

LEARNING ACTIVITIES

Seminars, debates and/or workshops to deepen and/or share experiences.

CH

1,5 h.

NCH

1,5 h.

TH

3 h.

EVALUATION SYSTEM

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

W

100%

MAKE-UP MECHANISMS

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

CH - Class hours: 1,5 h.

NCH - Non-class hours: 1,5 h.

TH - Total hours: 3 h.

RGD294 [!] *Realiza una presentación oral del proyecto con argumentos elaborados por sí mismos y haciendo un uso correcto, inclusivo y no discriminatorio del lenguaje.*

LEARNING ACTIVITIES

Seminars, debates and/or workshops to deepen and/or share experiences.

CH

1,5 h.

NCH

1,5 h.

TH

3 h.

EVALUATION SYSTEM

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

W

100%

MAKE-UP MECHANISMS

Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems

CH - Class hours: 1,5 h.

NCH - Non-class hours: 1,5 h.

TH - Total hours: 3 h.

RGD214 [!] *Zirkuitu magnetikoak eta transformadoreak diseinatu eta dimentsionatzeko gaitasuna*

LEARNING ACTIVITIES		CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams		7 h.	10 h.	17 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects		9 h.		9 h.
Practical work in workshops and/or laboratories, individually and/or in teams		4 h.		4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS		
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	40%	Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems		
Individual written and/or oral tests or individual coding/programming tests	60%	Individual written and/or oral tests or individual coding/programming tests		

CH - Class hours: 20 h.
NCH - Non-class hours: 10 h.
TH - Total hours: 30 h.

RGD215 [!] *Makina elektriko birakariak diseinatu eta dimentsionatzeko gaitasuna*

LEARNING ACTIVITIES		CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams		9 h.	10 h.	19 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects		12 h.		12 h.
Practical work in workshops and/or laboratories, individually and/or in teams		4 h.		4 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS		
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	40%	Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems		
Individual written and/or oral tests or individual coding/programming tests	60%	Individual written and/or oral tests or individual coding/programming tests		

CH - Class hours: 25 h.
NCH - Non-class hours: 10 h.
TH - Total hours: 35 h.

CONTENTS

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	Platt, C., “Encyclopedia of Electronic Components”; Vol. 1, O’REILLY
Labs	Platt, C., “Encyclopedia of Electronic Components”; Vol. 2, O’REILLY
Lab practical training	Platt, C., “Encyclopedia of Electronic Components”; Vol. 3, O’REILLY
Slides of the subject	Sinclair, I., “Electronics Simplified”; Third edition, Newnes
	Sangwine, S., “Electronic Components and Technology”; Third edition, CRC Press