Goi Eskola Politeknikoa | Mondragon Unibertsitatea
Course: 2023 / 2024 - Course planning

Mondragon
Unibertsitatea

Goi Eskola
Politeknikoa
Escuela Politécnica
Superior

[GJK203] MAINTENANCE AND REPAIR OF ELECTRONIC EQUIPMENT

GENERAL INFORMATION

Studies	DEGREE IN MECHATRONICS ENGINEERING		**Subject**	?	
Semester	2	**Course**	2	**Mention / Field of specialisation**	
Character	OPTIONAL				
Plan	2022	**Modality**	Face-to-face	**Language**	CASTELLANO/EUSKARA
Credits	4,5	**Hours/week**	3.75	**Total hours**	67.5 class hours + 45 non-class hours = **112.5 total hours**

PROFESSORS

SUEIRO ANDINO, URKO

REQUIRED PREVIOUS KNOWLEDGE

Subjects	**Knowledge**
ELECTRICAL MACHINES ELECTRICAL POWER SYSTEMS	*(No previous knowledge required)*

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GJR217 - To know the principles for the maintenance of different electronic equipment, detecting, diagnosing and repairing possible breakdowns in said equipment	x			4,02
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		0,24
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:	4,5

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

SECONDARY LEARNING RESULTS

RGJ290 **[!]** *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 estrategía de aprendiz*

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	2 h.	1 h.	3 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	*(No mechanisms)*

Comments: Continuous assessment. Retake is not foreseen.

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

RGJ291 **[!]** *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	CH	NCH	TH
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	2 h.	1 h.	3 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies,	100%	*(No mechanisms)*

computer exercises, simulation exercises, laboratory
exercises, term projects, challenges and problems

Comments: Continuous assessment. Retake is not foreseen.

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

RGJ293 **[!]** *Redacta y estructura correctamente la memoria del proyecto, haciendo un uso correcto del lenguaje. Para ello, busca y hace uso de las fuentes de información adecuadas*

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	2 h.	1 h.	3 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	*(No mechanisms)* **Comments:** Revision and correction of the written report of the semester project

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

RGJ294 **[!]** *Realiza una presentación oral del proyecto argumentando de forma eficaz, y haciendo un uso correcto del lenguaje*

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	2 h.	1 h.	3 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	*(No mechanisms)* **Comments:** Continuous assessment. Retake is not foreseen.

CH - Class hours: 2 h.
NCH - Non-class hours: 1 h.
TH - Total hours: 3 h.

RGJ246 **[!]** *Planifica y elabora el mantenimiento de equipos electrónicos*

LEARNING ACTIVITIES	CH	NCH	TH
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning	2 h.	4 h.	6 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	6 h.	4 h.	10 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	12 h.	6 h.	18 h.
Practical work in workshops and/or laboratories, individually and/or in teams	10 h.	6 h.	16 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	60%	Individual written and/or oral tests or individual coding/programming tests **Comments:** Final mark: written retake exam (75%) + exam (25%).

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Individual written and/or oral tests or individual coding/programming tests	40%	Laboratory practices will be made-up by on-going evaluation.

CH - Class hours: 30 h.
NCH - Non-class hours: 20 h.
TH - Total hours: 50 h.

RGJ247 **[!]** *Detecta, diagnostica y repara averías en equipos electrónicos*

LEARNING ACTIVITIES	CH	NCH	TH
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning	2 h.	4 h.	6 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	6 h.	4 h.	10 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	8 h.	3 h.	11 h.
Practical work in workshops and/or laboratories, individually and/or in teams	13,5 h.	10 h.	23,5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	60%	Individual written and/or oral tests or individual coding/programming tests
Individual written and/or oral tests or individual coding/programming tests	40%	**Comments:** Final mark: written retake exam (75%) + exam (25%). Laboratory practices will be made-up by on-going evaluation.

CH - Class hours: 29,5 h.
NCH - Non-class hours: 21 h.
TH - Total hours: 50,5 h.

CONTENTS

1. MAINTENANCE OF ELECTRONIC EQUIPMENT
2. DIAGNOSIS OF FAILURES IN ELECTRONIC EQUIPMENT
3. REPAIR OF FAILURES OF ELEMENTS AND SYSTEMS USED IN ELECTRONIC EQUIPMENT

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Labs	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_lnk.pl?grupo=MECATRONICA22&ejecuta=40&_ST
Lab practical training	
Moodle Platform	
Slides of the subject	
Topic related web quires	