

## [GJK203] MAINTENANCE AND REPAIR OF ELECTRONIC EQUIPMENT

### GENERAL INFORMATION

<b>Studies</b>	DEGREE IN MECHATRONICS ENGINEERING	<b>Subject</b>	?
<b>Semester</b>	2	<b>Course</b>	2
<b>Character</b>	OPTIONAL	<b>Mention / Field of specialisation</b>	???
<b>Plan</b>	2022	<b>Modality</b>	Face-to-face
<b>Credits</b>	4,5	<b>Hours/week</b>	3.69
		<b>Language</b>	EUSKARA/CASTELLANO
		<b>Total hours</b>	66.5 class hours + 46 non-class hours = <b>112.5 total hours</b>

### 2030 AGENDA GOALS



### PROFESSORS

(No professor appointed)

### REQUIRED PREVIOUS KNOWLEDGE

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

### LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
<b>GJR217</b> - To know the principles for the maintenance of different electronic equipment, detecting, diagnosing and repairing possible breakdowns in said equipment	x			4,02
<b>G-RTR1</b> - 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		0,32
<b>G-RTR2</b> - 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		0,16
<b>Total:</b>				<b>4,5</b>

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

### SECONDARY LEARNING RESULTS

#### 2RGJ291 (2 sem)

#### LEARNING ACTIVITIES

Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams

CH

2 h.

NCH

1 h.

TH

3 h.

#### EVALUATION SYSTEM

W

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

100%

#### MAKE-UP MECHANISMS

(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.

#### 2RGJ292 (2 sem)

#### LEARNING ACTIVITIES

Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams

CH

1 h.

NCH

1 h.

TH

2 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)

**CH - Class hours:** 1 h.

**NCH - Non-class hours:** 1 h.

**TH - Total hours:** 2 h.

## 2RGJ293 (2 sem)

### LEARNING ACTIVITIES

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

**CH**

1 h.

**NCH**

1 h.

**TH**

2 h.

### EVALUATION SYSTEM

**W**

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

100%

### MAKE-UP MECHANISMS

(No mechanisms)

**Comments:** Revision and correction of the written report of the semester project

**CH - Class hours:** 1 h.

**NCH - Non-class hours:** 1 h.

**TH - Total hours:** 2 h.

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

### LEARNING ACTIVITIES

Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning

**CH**

2 h.

**NCH**

4 h.

**TH**

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**

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

40%

### MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests

**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.

## 2RGJ290 (2 sem)

### LEARNING ACTIVITIES

Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams

**CH**

2 h.

**NCH**

1 h.

**TH**

3 h.

### EVALUATION SYSTEM

**W**

Reports on the completion of exercises, case studies,

100%

### MAKE-UP MECHANISMS

(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.

## 2RGJ294 (2 sem)

### LEARNING ACTIVITIES

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

**CH**

1 h.

**NCH**

1 h.

**TH**

2 h.

### EVALUATION SYSTEM

**W**

Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems

100%

### MAKE-UP MECHANISMS

(No mechanisms)

**Comments:** Continuous assessment. Retake is not foreseen.

**CH - Class hours:** 1 h.

**NCH - Non-class hours:** 1 h.

**TH - Total hours:** 2 h.

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

### LEARNING ACTIVITIES

Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning

**CH**

2 h.

**NCH**

4 h.

**TH**

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**

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

40%

### MAKE-UP MECHANISMS

Individual written and/or oral tests or individual coding/programming tests

**Comments:** Final mark: written retake exam (75%) + exam (25%). 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.

## CONTENTS

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

## LEARNING RESOURCES AND BIBLIOGRAPHY

### Learning resources

[!] Laboratorios

[!] Realización de prácticas en laboratorio

### Bibliography

[http://katalogoa.mondragon.edu/janium-bin/janium\\_login\\_opac\\_re\\_in\\_k.pl?grupo=MECATRONICA22&ejecuta=40&\\_ST](http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_in_k.pl?grupo=MECATRONICA22&ejecuta=40&_ST)

[!] *Plataforma Moodle*

[!] *Transparencias de la asignatura*

[!] *Consultas en páginas web relacionadas con el tema*