

## [GJA202] LABOUR CONDITIONS AND OCCUPATIONAL SAFETY .ENVIRONMENTAL PROTECTION

### GENERAL INFORMATION

<b>Studies</b>	DEGREE IN MECHATRONICS ENGINEERING	<b>Subject</b>	?
<b>Semester</b>	2	<b>Course</b>	2
<b>Character</b>	BASIC TRAINING	<b>Mention / Field of specialisation</b>	
<b>Plan</b>	2022	<b>Modality</b>	Face-to-face
<b>Credits</b>	6	<b>Language</b>	EUSKARA/CASTELLANO
		<b>Hours/week</b>	5.11
		<b>Total hours</b>	92 class hours + 58 non-class hours = <b>150 total hours</b>

### 2030 AGENDA GOALS



### PROFESSORS

AZPI-PRADO, JESUS PEDRO (SOMORROSTRO)  
OTEGUI ALTOLAGUIRRE, JON UNAX  
AZPI-VELASCO PADILLA, PATRICIA (SOMORROSTRO)

### REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	(No previous knowledge required)

### LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
<b>GJR205</b> - To know the concept, institutional and legal framework of the company and the concepts of occupational risk prevention and environmental protection carried out in it	x			5,4
<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		0,36
<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		0,24

**Total:** 6

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

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

**W**  
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** 2 h. **NCH** 1 h. **TH** 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)
<b>CH - Class hours:</b> 2 h. <b>NCH - Non-class hours:</b> 1 h. <b>TH - Total hours:</b> 3 h.		

**RGJ214** [!] *Conoce e interpreta la legislación laboral y de prevención de riesgos laborales básica y los aspectos legales referentes a seguridad de máquinas*

LEARNING ACTIVITIES	CH	NCH	TH
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	8 h.	4 h.	12 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	24 h.	16 h.	40 h.
Carrying out exercises and solving problems individually and/or in teams	4 h.	4 h.	8 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	80%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems
Individual written and/or oral tests or individual coding/programming tests	20%	Individual written and/or oral tests or individual coding/programming tests
<b>Comments:</b> The minimum mark to pass the individual test is 5. In the case of a make-up exam, the final result will be 25% first exam mark exam + 75% mark for the second exam. Also in the work the same same criteria, minimum mark of 5		<b>Comments:</b> Pass mark 5. In case of <5 the mark will be calculated: 25% Exam +75% Make-up exam

**CH - Class hours:** 36 h.  
**NCH - Non-class hours:** 24 h.  
**TH - Total hours:** 60 h.

**2RGJ293** (2 sem)

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)
		<b>Comments:</b> 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.

**2RGJ290** (2 sem)

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in	2 h.	1 h.	3 h.

interdisciplinary contexts, real and/or simulated, individually and/or in teams

#### 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.

**RGJ216** [!] *Identifica, clasifica y gestiona los residuos, las aguas y las emisiones atmosféricas generados por la empresa proponiendo una minimización de su impacto*

#### LEARNING ACTIVITIES

**CH**

**NCH**

**TH**

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

7 h.

7 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.

3 h.

9 h.

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

14 h.

14 h.

#### EVALUATION SYSTEM

**W**

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

80%

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

20%

#### MAKE-UP MECHANISMS

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

**Comments:** THE WAY TO RECOVER CONCEPTS IS TO TAKE ANOTHER CONTROL POINT WITH A MARK OF 5 OR MORE.

**Comments:** The minimum mark to pass the individual test is 5. In the case of a make-up exam, the final result will be 25% first exam mark exam + 75% mark for the second exam. Also in the work the same criteria, minimum mark of 5. the grade must be below 5. In order to take the make-up exam the grade must be below 5.

**CH - Class hours:** 20 h.

**NCH - Non-class hours:** 10 h.

**TH - Total hours:** 30 h.

**RGJ215** [!] *Evalúa los riesgos de las máquinas*

#### 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

8 h.

7 h.

15 h.

Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects

18 h.

12 h.

30 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

(No mechanisms)

**Comments:** Continuous assessment during the semester. No make-up is foreseen.

**CH - Class hours:** 26 h.

**NCH - Non-class hours:** 19 h.

**TH - Total hours:** 45 h.

**2RGJ294 (2 sem)**

**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.

**CONTENTS**

Environmental Protection1. Basic concepts.2. Industrial waste management: solids, water, atmospheric emissions.Occupational Safety.1. Law 31/95 on occupational risk prevention.2. Regulation of prevention services. RD 39/973. ISO45001:2018 management system.Machine Safety1. Basic concepts.2. CE marking of machines.

**LEARNING RESOURCES AND BIBLIOGRAPHY**

**Learning resources**

**Bibliography**

[!] *Apuntes de la asignatura*

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

[!] *Plataforma Moodle*

[!] *Proyección de videos*

[!] *Charlas de ponentes externos*

[http://katalogoa.mondragon.edu/janium-bin/janium\\_login\\_opac\\_re\\_Ink.pl?grupo=MECATRONICA22&ejecuta=5&\\_ST](http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_Ink.pl?grupo=MECATRONICA22&ejecuta=5&_ST)