

## [GJR203] PRODUCTION EQUIPMENT AND AUTOMATED SYSTEMS ENGINEERING II

### GENERAL INFORMATION

<b>Studies</b>	DEGREE IN MECHATRONICS ENGINEERING		<b>Subject</b>	?	
<b>Semester</b>	2	<b>Course</b>	3	<b>Mention / Field of specialisation</b>	???
<b>Character</b>	OPTIONAL		<b>Language</b>	CASTELLANO/EUSKARA	
<b>Plan</b>	2022	<b>Modality</b>	Face-to-face	<b>Total hours</b>	262.5 class hours + 0 non-class hours = <b>262.5 total hours</b>
<b>Credits</b>	10,5	<b>Hours/week</b>	14.58		

### PROFESSORS

ITURRASPE LARREATEGUI, MARIA AINHOA
ELKOROBARRUTIA LETONA, XABIER
ORUNA OTALORA, ANGEL
CANALES SEGADE, JOSE MARIA
ERAÑA LARRAÑAGA, IÑIGO
ALACANO LOITI, ARGIÑE
ANZOLA GARCIA, JON
MARZO ELGUERO, IOSU
AZPI-UNZUETA, JAVIER (SOMORROSTRO)
SAGREDO BLANCO, ENRIQUE
AGIRRE VIANA, XABIER
ELGUEZABAL LAZCANO, JON
LASA BASTIDA, MIKEL
URLEZAGA ARAZOSA, KEPA
POGGI, TOMASO
FERREIRA ARTOLA, IRAITZ
TORRES LOZANO, ASIER
SEIJO BARQUIN, IRAIDE

### REQUIRED PREVIOUS KNOWLEDGE

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

### LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
<b>GJR309</b> - To analyze and evaluate mechatronic situations and problems in equipment or production processes and automated systems, identifying possible alternatives, participating in different work teams and generating the appropriate technical documentation, interpreting possible solutions and transmitting information, ideas, problems and solutions to an audience. both specialized and non-specialized	x			7,2
<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		1,7
<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		1,6
<b>Total:</b>				<b>10,5</b>

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

### SECONDARY LEARNING RESULTS

**RGJ390** [!] *Definir y gestionar los objetivos y la planificación de un proyecto que le permita adquirir y/o reforzar los conocimientos de tecnologías específicas de su especialidad,- que en ocasiones llegan a la vanguardia del conocimiento- y definir una estrate*

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	21,5 h.		21,5 h.
<b>EVALUATION SYSTEM</b>	<b>W</b>	<b>MAKE-UP MECHANISMS</b>	
Observation (technical capacity, attitude and participation)	100%	Observation (technical capacity, attitude and participation)	
		<b>Comments:</b> Continuous assessment. Retake is not foreseen.	

**CH - Class hours:** 21,5 h.  
**NCH - Non-class hours:** 0 h.  
**TH - Total hours:** 21,5 h.

**RGJ391** [!] *Coordinar el equipo de trabajo, estimulando la cohesión y buen clima para lograr la integración de todas las personas y su contribución para alcanzar un rendimiento apropiado, tanto a nivel individual como grupal, para el desarrollo del proyecto en*

**LEARNING ACTIVITIES**

	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	21 h.		21 h.

**EVALUATION SYSTEM**

	W
Observation (technical capacity, attitude and participation)	100%

**MAKE-UP MECHANISMS**

Observation (technical capacity, attitude and participation)  
**Comments:** Continuous assessment. Retake is not foreseen.

**CH - Class hours:** 21 h.  
**NCH - Non-class hours:** 0 h.  
**TH - Total hours:** 21 h.

**RGJ393** [!] *Elabora la memoria del proyecto, aportando argumentos elaborados y haciendo un uso correcto, inclusivo y no discriminatorio del lenguaje.*

**LEARNING ACTIVITIES**

	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	20 h.		20 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:** 20 h.  
**NCH - Non-class hours:** 0 h.  
**TH - Total hours:** 20 h.

**RGJ394** [!] *Realiza una presentación oral del proyecto, justificando las soluciones propuestas con argumentos elaborados y precisos, y haciendo un uso correcto, inclusivo y no discriminatorio del lenguaje.*

**LEARNING ACTIVITIES**

	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	20 h.		20 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:** 20 h.  
**NCH - Non-class hours:** 0 h.  
**TH - Total hours:** 20 h.

**RGJ325** [!] *Analiza situaciones y selecciona y aplica métodos, técnicas, normativas, herramientas, etc. propios de la profesión*

**del Ingeniero Mecatrónico en un contexto industrial conocido.**

**LEARNING ACTIVITIES**

	<i>CH</i>	<i>NCH</i>	<i>TH</i>
Carrying out work experience in real environments and writing the corresponding report	180 h.		180 h.

**EVALUATION SYSTEM**

Observation (technical capacity, attitude and participation) *W* 100%

**MAKE-UP MECHANISMS**

Observation (technical capacity, attitude and participation)

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

**CH - Class hours:** 180 h.

**NCH - Non-class hours:** 0 h.

**TH - Total hours:** 180 h.

## CONTENTS

The contents on which the student will develop their activities will be determined by the type and active ty of the company and / or the technical department in which the student is located.

The contents will be based on one or more of the following areas:

- \* Assembly techniques for productive equipment: mechanical elements (transmission parts, guiding parts, sealing parts...).
- \* Manufacturing processes: forming processes, machining processes, welding...
- \* Automation of lines, equipment or productive processes.
- \* Programming of productive equipment, manufacturing processes or automated systems.
- \* Setting-up of productive equipment or productive processes.
- \* Measurement, testing and verification of components / subassemblies / mechanical assemblies or parameters on production processes: tools, techniques and elements of measurement / monitoring / testing.
- \* Diagnosis, verification and fixing of productive equipment or automated systems.
- \* Design of mechatronic systems that contain both mechanical and electronic parts, with the use of specific software.
- \* Project management and work methods of the company departments.
- \* Health & safety.

## LEARNING RESOURCES AND BIBLIOGRAPHY

### Learning resources

Topic related web quires  
 Technical articles  
 Moodle Platform  
 [!] *Recursos materiales y recursos formativos de la empresa para el desarrollo de las prácticas*  
 [!] *Puesto de trabajo en la empresa para el desarrollo de las prácticas*  
 [!] *Apoyo de los tutores de empresa y del tutor académico de las prácticas*

### Bibliography

[http://katalogoa.mondragon.edu/janium-bin/janium\\_login\\_opac\\_re\\_in k.pl?grupo=MECATRONICA32&ejecuta=40&\\_ST](http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_in k.pl?grupo=MECATRONICA32&ejecuta=40&_ST)