[GJR202] PRODUCTION EQUIPMENT AND AUTOMATED SYSTEMS ENGINEERING I

GENERAL INFORMATION

Studies	DEGREE IN MECHATRONICS ENGINEERING			**Subject**	?
Semester	1	**Course**	3	**Mention / Field of specialisation**	???
Character	OPTIONAL				
Plan	2022	**Modality**	Face-to-face	**Language**	CASTELLANO/EUSKARA
Credits	10,5	**Hours/week**	14.58	**Total hours**	262.5 class hours + 0 non-class hours = **262.5 total hours**

PROFESSORS

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REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GJR308 - To understand and analyze mechatronic situations and problems in production equipment or processes and automated systems, participating in different work teams and generating the appropriate technical documentation, describing existing solutions and transmitting information, ideas, problems and solutions to both a specialized and non-specialized audience			*x*	7,2
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*		1,7
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*		1,6
			Total:	**10,5**

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.

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

MAKE-UP MECHANISMS

Observation (technical capacity, attitude and participation)
Comments: Continuous assessment. With the practices of the

second semester

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	MAKE-UP MECHANISMS
Observation (technical capacity, attitude and participation)	100%	Observation (technical capacity, attitude and participation) **Comments:** Continuous assessment. With the practices of the second semester

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	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems **Comments:** Continuous assessment. With the written document of the practices of the second semester

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	MAKE-UP MECHANISMS
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	100%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems **Comments:** Continuous assessment. With the written document of the practices of the second semester

CH - Class hours: 20 h.
NCH - Non-class hours: 0 h.

TH - Total hours: 20 h.

RGJ324 **[!]** ***Comprende conceptos y aplica métodos, técnicas, normativas, herramientas, etc. propios de la profesión del Ingeniero Mecatrónico en un contexto industrial conocido.***

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	180 h.		180 h.

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

Comments: Technical and learning capacity demonstrated by the student in the practices developed in the company

MAKE-UP MECHANISMS

(No mechanisms)

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 activity 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...) in known contexts.
* Introduction to parameters and systems of manufacturing processes: forming processes, machining processes, welding...
* Introduction to automation of lines, equipment or productive processes.
* Demos of automation and programming of parameters of productive equipment, manufacturing processes or automated systems.
* Introduction to the setting-up of productive equipment or productive processes.
* Measurement, testing and verification of components / subassemblies / mechanical assemblies or parameters on production processes accompanied by experts of the company: tools, techniques and elements of measurement / monitoring / testing.
* Diagnosis of dysfunctions of the productive equipment of simple mechanisms and systems.
* Diagnosis, verification and fixing of simple automated systems.
* Programming of simple automated systems.
* Design of simple mechatronic systems that contain both mechanical and electronic parts, with the use of specific software.
* Introduction to project management and work methods of the company departments.
* Health & safety

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Topic related web quires	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_lnk.pl?grupo=MECATRONICA31&ejecuta=50&_ST
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*	