[GJO302] ENGINEERING OF PRODUCTION EQUIPMENT AND AUTOMATED SYSTEMS I

GENERAL INFORMATION

Studies	DEGREE IN MECHATRONICS ENGINEERING			**Subject**	?
Semester	1	**Course**	3	**Mention / Field of specialisation**	???
Character	OPTIONAL				
Plan	2025	**Modality**	Face-to-face	**Language**	EUSKARA/CASTELLANO
Credits	10,5	**Hours/week**	11.94	**Total hours**	215 class hours + 47.5 non-class hours = **262.5 total hours**

2030 AGENDA GOALS

PROFESSORS

(No professor appointed)

REQUIRED PREVIOUS KNOWLEDGE

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

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
G-TR1 - 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		1,4
G-TR2 - 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		2,8
G-TR3 - To demonstrate the ability to practice your profession with a cooperative and participatory attitude, in national, international and interdisciplinary contexts, respecting fundamental rights, especially non-discrimination and accessibility and design for all people, and analyzing and assessing the impact of the proposed solutions in the Sustainable Development Goals	x	x		6,3
			Total:	10,5

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

SECONDARY LEARNING RESULTS

1RGJ394 **(1 sem)**

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	20 h.	15 h.	35 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

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: 15 h.
TH - Total hours: 35 h.

1RGJ393 **(1 sem)**

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	20 h.	15 h.	35 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: 15 h.
TH - Total hours: 35 h.

1RGJ392 **[!]** ***(1 sem)Identificar y argumentar de forma precisa los ODS en los que incide el proyecto realizado, aportando posibles acciones para la mejora.***

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	17,5 h.	17,5 h.	35 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: 17,5 h.
NCH - Non-class hours: 17,5 h.
TH - Total hours: 35 h.

1RGJ395 **[!]** ***(1 sem)Capacidad para ejercer su profesión con cooperación y participación en contextos nacionales, internacionales e interdisciplinares, respetando derechos fundamentales, no discriminación, accesibilidad y diseño universal, evaluando impacto en ODS***

LEARNING ACTIVITIES	CH	NCH	TH
Carrying out work experience in real environments and writing the corresponding report	157,5 h.		157,5 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Observation (technical capacity, attitude and participation)	100%	*(No mechanisms)* **Comments:** Continuous assessment. Retake is not foreseen.

CH - Class hours: 157,5 h.
NCH - Non-class hours: 0 h.
TH - Total hours: 157,5 h.

CONTENTS

[!]

Los contenidos sobre los cuales el alumno desarrollará sus actividades estarán determinados por la tipología y la propia actividad de la empresa y/o departamento técnico en el cual el alumno/a esté emplazado.

Los contenidos estarán basados en alguno o varios de los siguientes ámbitos:

** Técnicas de montaje de equipos productivos: elementos mecánicos (elementos de transmisión, elementos de guiado, elementos de estanqueidad...) en contextos conocidos.*
** Introducción a parámetros y sistemas de procesos de fabricación: procesos de conformado, procesos de mecanizado, soldadura...*
** Introducción a automatización de líneas, equipos o procesos productivos.*
** Demos de automatización y programación de parámetros de equipo productivos, procesos de fabricación o sistemas automatizados.*
** Introducción a la puesta a punto de equipos productivos o procesos productivos.*
** Medición, ensayo y verificación de componentes / subconjuntos / conjuntos mecánicos o parámetros sobre procesos productivos acompañado por expertos de la empresa: herramientas, técnicas y elementos de medición / monitorización / ensayo.*
** Diagnosis de disfunciones de los equipos productivos de mecanismos y sistemas sencillos.*
** Diagnosis, verificación y reparación de averías de sistemas automatizados sencillos.*
** Programación de sistemas automatizados sencillos.*

** Diseño de sistemas mecatrónicos sencillos que contengan partes tanto mecánicas como electrónicas, con el empleo de software específico.*
** Introducción a la gestión de proyectos y métodos de trabajo de los departamentos de la empresa.*
** Seguridad y salud laboral.*

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
[!] *Consultas en páginas web relacionadas con el tema*	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_lnk.pl?grupo=MECATRONICA31&ejecuta=50&_ST
[!] *Artículos de carácter técnico*	
[!] *Plataforma Moodle*	