Goi Eskola Politeknikoa | Mondragon Unibertsitatea
Course: 2023 / 2024 - Course planning

[GJR204] PRODUCTION EQUIPMENT AND AUTOMATED SYSTEMS ENGINEERING III

GENERAL INFORMATION

Studies	DEGREE IN MECHATRONICS ENGINEERING			**Subject**	?
Semester	1	**Course**	4	**Mention / Field of specialisation**	???
Character	OPTIONAL				
Plan	2022	**Modality**	Face-to-face	**Language**	CASTELLANO/EUSKARA
Credits	12	**Hours/week**	16.67	**Total hours**	300 class hours + 0 non-class hours = **300 total hours**

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
- EGUIA IBARZABAL, JOSU
- AZPI-UNZUETA, JAVIER (SOMORROSTRO)
- CABEZUELO ROMERO, DAVID
- SAGREDO BLANCO, ENRIQUE
- AGIRRE VIANA, XABIER
- ELGUEZABAL LAZCANO, JON
- LASA BASTIDA, MIKEL
- URLEZAGA ARAZOSA, KEPA
- 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
GJR405 - To analyze, propose and evaluate mechatronic situations and problems in equipment or production processes and automated systems, proposing the most appropriate alternatives, assuming responsibilities, participating in different work teams and generating the appropriate technical documentation, arguing and justifying the conclusions and solutions presented 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		2,4
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		2,4
			Total:	**12**

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

SECONDARY LEARNING RESULTS

RGJ490 **[!]** *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	30 h.		30 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS

Observation (technical capacity, attitude and participation) 100%

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

CH - Class hours: 30 h.
NCH - Non-class hours: 0 h.
TH - Total hours: 30 h.

RGJ491 **[!]** *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	30 h.		30 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Observation (technical capacity, attitude and participation)	100%	Observation (technical capacity, attitude and participation) **Comments:** Continuous assessment. Retake is not foreseen.

CH - Class hours: 30 h.
NCH - Non-class hours: 0 h.
TH - Total hours: 30 h.

RGJ493 **[!]** *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	30 h.		30 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: 30 h.
NCH - Non-class hours: 0 h.
TH - Total hours: 30 h.

RGJ494 **[!]** *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	30 h.		30 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: 30 h.
NCH - Non-class hours: 0 h.
TH - Total hours: 30 h.

RGJ413 [!] *Valora situaciones y propone y aplica métodos, técnicas, normativas, herramientas, etc. propios de la profesión del Ingeniero Mecatrónico en un contexto industrial desconocido*

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

* Techniques for assembling production equipment: mechanical elements (transmission elements, guiding elements, sealing elements, etc.) in new contexts.
* Advanced manufacturing process systems: forming processes, machining processes, machining, welding
* Automation applications and programming of line parameters, equipment or manufacturing processes.
* Advanced programming of automated systems
* Advanced tuning of equipment and production processes
* Measurement, testing and verification of components / subsets / mechanical sets or parameters on production processes in autonomy: tools, techniques and elements of measurement / monitoring / testing.
* Diagnosis of malfunctions of the productive equipments of mechanisms and complex systems.
* Diagnosis, verification and troubleshooting of complex automated systems
* Advanced project management and working methods of company departments
* Occupational health and safety, and environmental protection

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Topic related web quires	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_lnk.pl?grupo=MECATRONICA41&ejecuta=25&_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*	