

[GAGG03] PRODUCTION AND MANUFACTURING SYSTEMS

GENERAL INFORMATION

Studies	DEGREE IN ENERGY ENGINEERING	Subject	MECHANICS
Semester	1	Course	3
Character	OPTIONAL	Mention / Field of specialisation	
Plan	2013	Language	ENGLISH
Credits	4,5	Hours/week	2.22
		Total hours	40 class hours + 72.5 non-class hours = 112.5 total hours

FACULTY

AZPILGAIN BALERDI, JON ZIGOR

REQUIRED PREVIOUS KNOWLEDGE

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

SKILLS

SKILLS	ECTS
G1A301 - To know the fundamentals of manufacturing and production systems.	4,12
G1A313 - To be able to work in multidisciplinary, multilingual environments, and to effectively communicate knowledge, procedures, results and ideas about energy both verbally and in writing.	0,36
Total:	4,48

LEARNING RESULTS

RGA301 [!] *Conoce y selecciona el proceso de fabricación más adecuado para una pieza dada conjugando criterios tecnológicos y económicos*

LEARNING ACTIVITIES		CH	NCH	TH
Classroom presentations of relevant concepts and procedures in participatory environments.		40 h.		40 h.
Individual study and work, tests and evaluations.			27,5 h.	27,5 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS		
Individual written and oral tests to assess technical skills in the subject.	100%	[!] <i>Recuperación del punto de control</i>		
Comments:		Comments:		
CH - Class hours: 40 h.				
NCH - Non-class hours: 27,5 h.				
TH - Total hours: 67,5 h.				

RGA302 [!] *Aplica conocimiento de sistemas de producción y fabricación en un entorno real o simulado*

LEARNING ACTIVITIES		CH	NCH	TH
Development, writing and presentation of group projects and/or POPBL.			36 h.	36 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS		
Individual written and oral tests to assess technical skills in the subject.	100%	[!] <i>Evaluación continua</i>		
Comments:		Comments:		
CH - Class hours: 0 h.				
NCH - Non-class hours: 36 h.				
TH - Total hours: 36 h.				

RGA337 [!] *Define los objetivos, realiza la planificación para su consecución y su seguimiento sistemático coordinando su trabajo con los demás miembros del equipo.*

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of group projects and/or POPBL.		2 h.	2 h.

EVALUATION SYSTEM	W	MAKE-UP MECHANISMS
Project assessment. The following will be taken into account: (a) Throughout the project, continuous assessment of both the individual student and the team, regarding task performance; (b) On completion of the project, the solution provided by the team of students and the corresponding report; (c) Lastly, the oral defence of the project, taking into account both the knowledge acquired and the quality of the presentation, the reasoned justification of the principals and the ultimate reasons for proposing the chosen solution. Comments:	100%	[!] <i>Evaluación continua</i> Comments:
CH - Class hours: 0 h. NCH - Non-class hours: 2 h. TH - Total hours: 2 h.		

RG338 [!] <i>Argumenta la selección de las teorías, métodos y/o tecnologías más relevantes que permitan definir y/o solucionar un problema utilizando bibliografía de calidad</i>			
LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of group projects and/or POPBL.		2 h.	2 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Project assessment. The following will be taken into account:	100%	[!] <i>Evaluación continua</i>	
Comments:			
CH - Class hours: 0 h.			
NCH - Non-class hours: 2 h.			
TH - Total hours: 2 h.			

RG339 [!] <i>Redacta informes técnicos de forma clara, concisa y estructurada siguiendo las especificaciones establecidas haciendo énfasis en la coherencias entre los distintos apartados .</i>			
LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of group projects and/or POPBL.		3 h.	3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Project assessment. The following will be taken into account:	100%	[!] <i>Evaluación continua</i>	
(a) Throughout the project, continuous assessment of both the individual student and the team, regarding task performance; (b) On completion of the project, the solution provided by the team of students and the corresponding report; (c) Lastly, the oral defence of the project, taking into account both the knowledge acquired and the quality of the presentation, the reasoned justification of the principals and the ultimate reasons for proposing the chosen solution.		Comments:	
Comments:			
CH - Class hours: 0 h.			
NCH - Non-class hours: 3 h.			
TH - Total hours: 3 h.			

RG340 [!] <i>Presenta y defiende el trabajo en público de forma clara, concisa y estructurada mediante el uso apropiado de soporte visual según las especificaciones establecidas.</i>			
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LEARNING ACTIVITIES		CH	NCH	TH
Development, writing and presentation of group projects and/or POPBL.			2 h.	2 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS		
Project assessment. The following will be taken into account: (a) Throughout the project, continuous assessment of both the individual student and the team, regarding task performance; (b) On completion of the project, the solution provided by the team of students and the corresponding report; (c) Lastly, the oral defence of the project, taking into account both the knowledge acquired and the quality of the presentation, the reasoned justification of the principals and the ultimate reasons for proposing the chosen solution.	100%	[!] <i>Evaluación continua</i> Comments:		
Comments:				
CH - Class hours: 0 h. NCH - Non-class hours: 2 h. TH - Total hours: 2 h.				

CONTENTS

1. INTRODUCTION
2. TURNING
3. MILLING
4. DRILLING
5. CUTTING CONDITIONS
6. PROCESS PLANNING
7. CASTING
8. FORGING
9. SHEET METAL FORMING

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	Manufacturing engineering and technology, Kalpakjian, Serope, Schmid, Steven R, 7th edition, New Jersey: Prentice Hall, 2013
Class presentations	Manufactura. Ingeniería y Tecnología, 5. Edición. Serope Kalpakjian y Steven R. Schmid. Pearson Educación, 2008. ISBN 9789702610267
Video projections	Fundamentos de Manufactura Moderna. Materiales, Procesos y Sistemas, 3. Edición. Mikell P. Groover. Mc Graw Hill. 2013. ISBN: 978-0-471-74485-6
Slides of the subject	