

[GJO101] ENGINEERING AND SOCIAL CHANGES

GENERAL INFORMATION

Studies	DEGREE IN MECHATRONICS ENGINEERING		Subject ?
Semester	1	Course	3
Character	OPTIONAL	Mention / Field of specialisation	
Plan	2020	Modality	Adapted Face-to-face
Credits	3	Hours/week	2.5
		Language	EUSKARA
		Total hours	45 class hours + 30 non-class hours = 75 total hours

PROFESSORS

AZPI-KANPANDEGI, HARITZ (HUHEZI)

REQUIRED PREVIOUS KNOWLEDGE

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

SKILLS

VERIFICA SKILLS

SPECIFIC

GJCE22 - To have basic knowledge of and ability to apply environmental and sustainability technologies.

CROSS

GJCTR1 - To be able to do their job in cooperative, participatory environments, with awareness of social responsibility.

BASIC

G_CB3 - To be capable of gathering and interpreting relevant data (normally within their field of study) in order to make judgements, reflecting on relevant matters of a social, scientific or ethical nature

G_CB4 - To be able to communicate information, ideas, problems and solutions to both expert and lay audiences

LEARNING RESULTS

RG301 They assume responsibilities in the team, organizing and planning the tasks to be developed, dealing with contingencies and encouraging the participation of its members.

LEARNING ACTIVITIES

	CH	NCH	TH
Individual study and work, tests and evaluations and check points	1,6 h.	1 h.	2,6 h.
Presentation of the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	3,6 h.	2,4 h.	6 h.
Individual and team exercises	1,6 h.	,5 h.	2,1 h.
Individual and/or team computer simulation practice	3,2 h.	2,2 h.	5,4 h.
Tutoring sessions and monitoring of training activities		1,4 h.	1,4 h.
Workshops, discussions, seminars, case studies, role plays, etc	1 h.		1 h.
Solving of multidisciplinary exercises or team study cases	1 h.	,5 h.	1,5 h.

EVALUATION SYSTEM

	W
Individual written and oral tests to assess technical skills of the subject	70%
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	10%
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field	20%

MAKE-UP MECHANISMS

(No mechanisms)

CH - Class hours: 12 h.

NCH - Non-class hours: 8 h.

TH - Total hours: 20 h.

RG302 They analyze the variables involved in the problem and propose actions for a stable situation.

LEARNING ACTIVITIES

CH NCH TH

Individual study and work, tests and evaluations and check points	2,8 h.	1,8 h.	4,6 h.
Presentation of the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	6,3 h.	4,2 h.	10,5 h.
Individual and team exercises	2,8 h.	,9 h.	3,7 h.
Individual and/or team computer simulation practice	5,6 h.	3,9 h.	9,5 h.
Tutoring sessions and monitoring of training activities		2,3 h.	2,3 h.
Workshops, discussions, seminars, case studies, role plays, etc	1,75 h.		1,75 h.
Solving of multidisciplinary exercises or team study cases	1,75 h.	,9 h.	2,65 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Individual written and oral tests to assess technical skills of the subject	70%	<i>(No mechanisms)</i>	
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	10%		
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field	20%		
CH - Class hours: 21 h.			
NCH - Non-class hours: 14 h.			
TH - Total hours: 35 h.			

RG303 They select, apply and evaluate, in unknown contexts, the most appropriate methods, techniques, regulations, etc. of the engineer's profession.

LEARNING ACTIVITIES	CH	NCH	TH
Individual study and work, tests and evaluations and check points	1,6 h.	1 h.	2,6 h.
Presentation of the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	3,6 h.	2,4 h.	6 h.
Individual and team exercises	1,6 h.	,5 h.	2,1 h.
Individual and/or team computer simulation practice	3,2 h.	2,2 h.	5,4 h.
Tutoring sessions and monitoring of training activities		1,4 h.	1,4 h.
Workshops, discussions, seminars, case studies, role plays, etc	1 h.		1 h.
Solving of multidisciplinary exercises or team study cases	1 h.	,5 h.	1,5 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Individual written and oral tests to assess technical skills of the subject	70%	<i>(No mechanisms)</i>	
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	10%		
Written, coding/programming and individual oral tests for the evaluation of technical skills in the field	20%		
CH - Class hours: 12 h.			
NCH - Non-class hours: 8 h.			
TH - Total hours: 20 h.			

CONTENTS

MODULE 1: Changes in Today's Society

- New World Order (Neoliberalism and TNCs)
- Globalization
- Energy/Environmental Challenge

MODULE 2: Science, Technology and Society

- Change of Era, Epoque of Change
- MODULE 2: Science, Technology and Society
- CTG Start - Origin of Consumer Society (Fordism) and Development (Neoliberalism)

- Programmed Obsolescence

- Product Life Cycle Analysis

MODULE 3: New Scenarios - Energy Challenge

- Technological Challenges (Enterprise 4.0)

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources

Slides of the subject

Video projections

Bibliography

J. Azkarraga, L. Altuna, T. Kausel, I. Iñurrategi, “La evolución sostenible. Una crisis multidimensional”, Cuadernos de Lanki nº4

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G. Duch, "Lo que hay que tragar", Ed. Los libros del lince, 2010

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