

[GCP101] ENGINEERING AND SOCIAL CHANGES

GENERAL INFORMATION

Studies	DEGREE IN ENGINEERING IN ECO-TECHNOLOGY IN INDUSTRIAL PROCESS		Subject	HUMANITIES AND SOCIAL SCIENCES
Semester	1	Course	2	Mention / Field of specialisation
Character	OPTIONAL		Language	EUSKARA
Plan	2017	Modality	Adapted Face-to-face	Total hours
Credits	3	Hours/week	2.5	45 class hours + 30 non-class hours = 75 total hours

Note: Considerations concerning academic activities: Some teaching activities have been planned to be carried out face to face, others online and others both ways. If physical presence is reduced due to the COVID, some face to face activities will be carried out either online or will be replaced by others.

Note: Considerations concerning the assessment system: Assessment criteria percentages or the assessment criteria itself can be modified due to the COVID, if the online context prevails over the physical presence.

PROFESSORS

AZPI-KANPANDEGI, HARITZ (HUHEZI)

REQUIRED PREVIOUS KNOWLEDGE

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

SKILLS

VERIFICA SKILLS

CROSS

GCCTR2 - To be able to do their job in cooperative, participatory environments, with awareness of social responsibility.

BASIC

G_CB2 - To be able to apply knowledge to occupational or professional tasks; have the necessary skills to pose and defend arguments, and to solve problems within their field of study

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

G_CB5 - To have developed learning abilities required to embark on subsequent studies with a high level of autonomy.

GCCG5 - [!]

LEARNING RESULTS

RG203 They Apply methods, techniques, regulations, etc. typical of the engineering profession in familiar contexts.

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.

RG202 They make decisions and evaluate any possible consequences of the selected alternative.

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%	(No mechanisms)
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.

RG201 They coordinate the work with the rest of the group members, contributing to develop the task to be done and creating a good work atmosphere.

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%	(No mechanisms)
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

- 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	Bibliography
Slides of the subject	J. Azkarraga, L. Altuna., T. Kausel, I. Iñurrategi, “La evolución sostenible. Una crisis multidimensional”; Cuadernos de Lanki nº4
Video projections	J. Ziegler, "Odio a Occidente", Ed. Península, 2010
	G. Duch, "Lo que hay que tragar", Ed. Los libros del lince, 2010
	Y. Herrero, F. Cembranos, M. Pascual, "Cambiar las gafas para mirar el mundo", 1ª edición, Ed. Libros en acción, 2011
	G. Bilbao, J. Fuertes, JM Guilbert, "Ética para ingenieros", 1ª edición, Ed. Desclee de Brower, 2006
	MA Sobrevila, "La formación del Ingeniero Profesional para el tiempo actual. Tesis de las ingenierías de base", Ed. Academia Nacional de Educación, 2000
	L. Altuna (Coord.), "La experiencia Cooperativa de Mondragon. Una síntesis general", Ed. Mondragon Unibertsitatea, 2008