Goi Eskola Politeknikoa | Mondragon Unibertsitatea
Course: 2021 / 2022 - Course planning

[GIJ201] ENGINEERING AND SOCIAL CHANGES

GENERAL INFORMATION

Studies	DEGREE IN COMPUTER ENGINEERING			**Subject**	HUMANITIES AND SOCIAL SCIENCES
Semester	1	**Course**	2	**Mention / Field of specialisation**	
Character	OPTIONAL				
Plan	2017	**Modality**	Adapted Face-to-face	**Language**	EUSKARA
Credits	3	**Hours/week**	2.5	**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

GICE03 - To be able to plan, conceive, develop and manage computer systems, services and projects in all contexts, directing their implementation and continuous improvement and assessing their social and economic impact.

GENERAL

GIGC02 - To be able to manage activities, subject of the projects in the field of computer technologies

GIGC05 - To be able to conceive, develop and maintain computer systems, services and applications, using the software engineering methods in order to ensure quality

GIGC07 - To have the knowledge, understanding and ability to apply the laws pertaining to Computer Technology Engineering and manage specifications, standards and regulations of mandatory compliance.

GIGC10 - To know how to perform measurements, calculations, valuations, estimates, inspections, studies, reports, task planning schemes and other analogous related activities

GIGC12 - To understand and apply the fundamentals of economics and human resource management, project planning and organisation, legal and regulatory frameworks and standardisation in computer technology projects

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_CB5 - To have developed learning abilities required to embark on subsequent studies with a high level of autonomy.

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 estudies, 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.

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 estudies, 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
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: 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 estudies, 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.

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 Video projections	J. Azkarraga, L. Altuna,. T. Kausel, I. Iñurrategi, "La evolución sostenible. Una crisis multidimensional", Cuadernos de Lanki nº4
	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. Desclée 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