

[GOM203] OPTIMISATION TECHNIQUES AND TOOLS II

GENERAL INFORMATION

Studies	DEGREE IN INDUSTRIAL ORGANIZATION ENGINEERING	Subject	Techniques and Tools
Semester	1	Course	3
Character	COMPULSORY	Mention / Field of specialisation	
Plan	2017	Modality	Adapted Face-to-face
Credits	3	Hours/week	2.33
		Language	ENGLISH
		Total hours	42 class hours + 33 non-class hours = 75 total hours

PROFESSORS

EREÑO INCERA, ANA MONSERRAT

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
<i>(No specific previous subjects required)</i>	<i>(No previous knowledge required)</i>

SKILLS

VERIFICA SKILLS

SPECIFIC

- GOC307** - To identify the key parameters in the supply chain and design efficient processes for the supply, storage and distribution of products within a national and international framework.
- GOC309** - To solve problems and analyse the implications of the solution proposed by defining actions which hinder the reappearance of problems (stable solution) and taking part in various work teams.
- GOC310** - To draft different types of documents, arguing and justifying the conclusions and solutions presented therein and to communicate, present and share the information appropriately.

GENERAL

- GOCT06** - To manage the key parameters in the value chain for the effective management of industrial activities and processes or services

BASIC

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

ENAAE LEARNING RESULTS

	ECTS
ENAE03 - Knowledge and understanding: Sufficient knowledge of their branch of engineering, including some knowledge at the forefront of their field.	0,45
ENAE07 - Analysis in engineering: Ability to choose and apply relevant modelling and analytical methods.	0,3
ENAE09 - Engineering projects: Understanding of the different methods and ability to use them.	0,39
ENAE12 - Research & innovation: Technical and lab competences.	0,39
ENAE15 - Practical application of engineering: Understanding of applicable methods and techniques and their limitations.	0,3
ENAE17 - Transversal competences: To work effectively, both individually and in a team.	0,39
ENAE18 - Transversal competences: To use different methods to communicate effectively with the engineering community and society in general.	0,39
ENAE20 - Transversal competences: Demonstrate that they are aware of entrepreneurial practices and project management, in addition to risk control and management and understand their limitations.	0,39

Total: 3

LEARNING RESULTS

RG301 Assumes responsibilities in the work team, organizing and planning the tasks to be developed, facing the contingencies and encouraging the participation of its members.

LEARNING ACTIVITIES

	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc.		2 h.	2 h.
Relating to projects/POPBLs carried out individually or in teams			

EVALUATION SYSTEM

Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence

MAKE-UP MECHANISMS

(No mechanisms)

CH - Class hours: 0 h.
NCH - Non-class hours: 2 h.

TH - Total hours: 2 h.

RG302 Analyze the intervening variables in the problem and propose actions for a stable situation.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams		3 h.	3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	(No mechanisms)	

CH - Class hours: 0 h.
NCH - Non-class hours: 3 h.
TH - Total hours: 3 h.

RG304 Define the problem, develop the solution and present the conclusions in a efficient manner, arguing and justifying each one of them in writing.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	3 h.		3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	(No mechanisms)	

CH - Class hours: 3 h.
NCH - Non-class hours: 0 h.
TH - Total hours: 3 h.

RG305 Define the problem, develop the solution and present the conclusions in a efficient manner, arguing and justifying each one of them in spoken form.

LEARNING ACTIVITIES	CH	NCH	TH
Development, writing and presentation of memorandums, reports, audiovisual material, etc. Relating to projects/POPBLs carried out individually or in teams	3 h.		3 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	100%	(No mechanisms)	

CH - Class hours: 3 h.
NCH - Non-class hours: 0 h.
TH - Total hours: 3 h.

RG0312 Develops appropriate simulation models based on a real logistics environment.

LEARNING ACTIVITIES		CH	NCH	TH
Individual study and work, tests and evaluations and check points		6 h.	16 h.	22 h.
Presentation of the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects		15 h.	6 h.	21 h.
Individual and/or team computer simulation practice		15 h.	6 h.	21 h.
EVALUATION SYSTEM		W	MAKE-UP MECHANISMS	
Individual written and oral tests to assess technical skills of the subject	40%	Individual written and oral tests to assess technical skills of the subject		
Reports of solving exercises, case studies, computer practices, simulation practices and laboratory practices	20%			
Technical skills, involvement in the project, finished work, obtained results, handed documentation, presentation and technical defence	40%			
CH - Class hours: 36 h.				
NCH - Non-class hours: 28 h.				
TH - Total hours: 64 h.				

CONTENTS

Introduction: data, information, knowledge

Entity relationship diagram

Relational model

Ms Access

Data analysis tool

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	Access 2019 Bible [Libro] / Michael Alexander, Dick Kusleika
Moodle Platform	
Class presentations	
Programmes	